



Solar Photo-Voltaic System Submittal Requirements

ADMINISTRATIVE

1. Provide plans with a minimum sheet size of 11" x 17".
2. Attach all manufacturer specification sheets, installation instructions and U.L. listings to the plans.
3. The plans are to be signed by a State of California licensed B, C-46, or C-10 contractor with the engineered portions signed and stamped by a California registered design professional (architect or engineer). Provide signature and contractor on each sheet.
4. Residential systems 10kW or less installed on one- and two-family homes are eligible for streamlined permit and plan check processing upon successful completion of the Eligibility Checklist for Expedited Residential Solar Permitting form available online on the City website. See Plan Review and Inspection of this handout for more information.

ROOF PLAN

1. Provide a roof plan projected on a site plan. Show the location and dimensions of all solar voltaic equipment and PV arrays.
2. Provide a roof framing plan. Show new and existing supporting rafters, beams and headers, include rafter size, span, and spacing. Identify roof sheathing and roofing materials.
3. Detail equipment support connections to roof. Provide a detail for flashing and water proofing at system supports.
4. Provide calculations by a licensed professional engineer or architect to verify supporting members are adequate for existing and proposed loads
5. For panels weighing more than 4lbs/ft., provide lateral calculations by a licensed professional engineer or architect per the 2019 California Building Code showing that affected existing lateral resisting elements are no more than 10% overstressed according to the 2019 California Building Code.

ELECTRICAL

1. Provide Electrical drawings to show compliance with the applicable provisions of the 2019 California Electrical Code.
2. Show the location of the main electrical service, AC/DC disconnects, all solar voltaic equipment, and PV arrays on the roof plan.
3. Single Line Wiring Diagram: Show conduit and conductor sizes and types, including location and rating of over current devices (OCD). Provide wire size calculations with ampacities adjusted using the appropriate deration factors.
4. Inverter Information: Provide model number, specification cut sheets, and maximum D.C. input.
5. PV Module Information: Show open circuit voltage (VOC), short – circuit current (Isc) max series fuse.

6. Array Information: Show number of modules in series, number of parallel source circuits.
7. System Labels and Warnings: Show required signage on the plans per 2019 CEC Article 690.
8. Grounding Details: Show equipment grounding conductor, and grounding electrode conductor from inverter to ground rod or ufer ground; min. #8 AWG copper.
9. Disconnect Devices: Show AC/DC disconnect at inverter. DC disconnects required prior to DC array conductors penetrating the surface of the roof or entering the building.
10. Overcurrent Devices: Shall be listed for use with PV systems. Shall be sized at not less than 125% of the maximum current calculated in Art 690.8(a) of the California electrical Code, or an assembly, together with its overcurrent devices, is listed for continuous operation at 100% of its rating, or a listed adjustable electronic overcurrent protective device.
11. Placard: A permanently affixed metal placard shall be placed for clear visibility inside the electrical panel that states: **“The main service breaker has been down sized to _____ Amps”**. No up-sizing is permitted.

Note: For the purpose of solar installation, derating of the service panel is not permitted.

FIRE SAFETY REQUIREMENTS

1. See section R324 of the California Residential Code and section 1204 of the 2019 California Fire Code for fire safety access requirement for Solar Photovoltaic Power Systems,

PLAN REVIEW and INSPECTION

1. For residential projects that qualify using the Eligibility Checklist for Expedited Residential Solar Permitting, the permits are issued without delay and the plan review of the system is performed in the field at the same time as the final inspection is made of the completed installation. This is one inspection for both. For additional information, please refer to the Eligibility Checklist for Expedited Solar Voltaic.
2. All other installations must be submitted for standard plan review and are subject to inspection accordingly.
3. Please note that if the installation requires a service upgrade, that work must be complete and ready for inspection at the same time as the final inspection of the solar installation. We will issue only one release to the utility company for the meter and the solar installation.