Community Development Department, Building and Safety,
6650 Beach Boulevard, Buena Park, CA 90620

SOLAR PHOTO-VOLTAIC SYSTEM

SOLAR PHOTO-VOLTAIC SYSTEM SUBMITTAL REQUIREMENTS

ADMINISTRATIVE

1. Provide (3) sets of plans minimum sheet size 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 the registered design professional. Provide signature and contractor license number 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 Solar Voltaic Permitting form.

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 2016 C.B.C. showing that affected existing lateral resisting elements are no more than 10% overstressed according to the 2016 CBC.

ELECTRICAL

1. Provide Electrical drawings to show compliance with the applicable provisions of the 2016 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 derating 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. Conductor Calculations: Provide conductor size calculations showing their ampacities adjusted using the appropriate deration factors.

8. System Labels and Warnings: Show required signage on the plans per 2013 CEC Article 690.

9. Grounding Details: Show equipment grounding conductor, and grounding electrode conductor from inverter to ground rod or ufer ground; min. #8 AWG copper.

10. 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.

11. System Calculations: show (VOC) calculated 1.13 (temperature correction factor for City of Buena Park) (ISC) calculated x 1.25% (NEC 690) x 1.25% (UL 1703).

    *NOTE: FOR THE PURPOSE OF SOLAR INSTALLATION, DERATING OF THE SERVICE PANEL IS NOT PERMITTED.

FIRE AUTHORITY REQUIREMENTS

1. See Orange County Fire Authority's *Guideline for Fire Safety Elements of Solar Photovoltaic Systems* for clearances and other requirements not noted here: http://www.ocfa.org/_uploads/pdf/PhotovoltaicGuideline.pdf

PLAN REVIEW and FINAL INSPECTION

1. For projects that qualify using the Eligibility Checklist for Expedited Solar Voltaic Permitting, 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.

   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.