



Community Development Department
11 English Street
Petaluma, CA 94952
<http://cityofpetaluma.org>

Building Division
Phone: (707) 778-4301
To schedule inspections: (707) 778-4479
Email: cdd@cityofpetaluma.org

Solar Photovoltaic System Submittals

1. PURPOSE

In an effort to promote a consistent methodology for processing permits by all jurisdictions within and around Sonoma County, this standardized permit submittal has been developed for residential (one and two family dwellings and legally permitted accessory buildings) roof mounted PV systems in cooperation with the Redwood Empire Association of Code Officials and Solar Sonoma County. If the project is located in a historical district, in a homeowner's association, or is a ground mount system, additional requirements for review may be required.

2. APPROVAL REQUIREMENTS

- a. Installed on a single-family home or duplex.
- b. Maximum power output of 10kW or less.
- c. The solar system when installed on the roof does not exceed the maximum legal building height.
- d. The solar system is utility interactive.

3. SUBMITTAL REQUIREMENTS

- a. ***Eligibility Checklist*** - this form needs to be completely filled out, signed, and dated (the form is included with this handout).
- b. ***Electrical Plan*** - includes the following:
 - Location of main service, disconnects, inverters, etc. Indicate service size and bus bar rating.
 - Total number of modules, number of modules per string and total number of strings.
 - Make, model, and specification sheets for all equipment including panels, racking, attachment hardware, inverters, optimizers, disconnects, combiner boxes, etc.
 - One-line diagram of system including all components and wire sizes.
 - Specify grounding/bonding, conductor type and size, conduit type and size and number of conductors in each section of conduit.
 - Labeling of equipment as required by CEC, Sections 480, 690, and 705.
 - Site diagram showing the arrangement of panels on the roof, north arrow, lot dimensions and the distance from property lines to adjacent buildings/structures (existing and proposed).

A standard electric plan - PV Toolkit Document #3 or #4 can also be downloaded from the most current edition of the California Solar Permitting Guidebook (CSPG) at www.opr.ca.gov/docs/20190226-Solar_Permittng_Guidebook_4th_Edition.pdf.

c. **Roof Plan** – which includes:

- Roof layout.
- PV panel layout, racking attachment points, and conduit runs.
- PV system fire classification and the locations of all required labels and markings.
- Location of code-compliant access pathways are available in Section 324 of the California Residential Code, <https://codes.iccsafe.org/content/chapter/15524/>
- Notes that indicate the type of roof and number of layers, the type, size, and spacing of roof framing members, and roof slope.

d. **Structural Plan** - based on the jurisdiction's one and two-family housing stock and code compliance history, a structural plan may be required. Where there are no visible structural deficiencies or deflection in the roof structure and the maximum racking attachment spacing is 6 foot on center, then complete structural plans are not required. The 6-foot spacing is applicable to conventional framing as well as factory-built trusses where the contractor confirms no attachment points within 1 foot of any splices on the top chord of the truss. If this cannot be confirmed, or the truss spacing is 16 inches on center, then the anchor spacing for factory-built trusses is 4 foot on center alternating.

If a complete structural plan is required, then comply with the submittal requirements for the Structural Criteria for Residential Rooftop Solar Energy Installations - PV Toolkit Document #5 which can be downloaded at,

www.opr.ca.gov/docs/20190226-Solar_Permitting_Guidebook_4th_Edition.pdf

For systems that do not qualify for using the Toolkit Document #5, provide structural drawings and calculations stamped and signed by a California licensed engineer along with the following information:

- Roof framing plan showing the type, size, and spacing of members
- Type of roof covering and number of overlays
- Weight of panels, support locations and method of attachment
- Framing plan and details for any work necessary to strengthen the existing roof structure.
- Site-specific structural calculations

3. **INSPECTIONS**

Once all permits to construct the solar installation have been issued and the system has been installed, it must be inspected before final approval and activation is granted for the solar system. On-site inspections can be scheduled by contacting the City of Petaluma at 707-778-4479 during working hours. Inspection requests received are typically scheduled for the next business day. Permit holders must be prepared to show conformance with all requirements in the field at the time of inspection. The approved plans and permit shall be onsite for the inspector.

4. **DEPARTMENT CONTACT INFORMATION**

For additional information regarding this permit process, please consult our website at cityofpetaluma.org, or contact the Building Division at cdd@cityofpetaluma.org.

ELIGIBILITY CHECKLIST FOR EXPEDITED SOLAR PHOTOVOLTAIC PERMITTING OF RESIDENTIAL DWELLINGS

GENERAL REQUIREMENTS

- A. System size is 10 kW alternating current nameplate rating or less Y N
- B. The solar array is roof-mounted on one- or two-family dwelling or accessory structure Y N
- C. The solar panel/module arrays will not exceed the maximum legal building height Y N
- D. Solar system is utility interactive Y N
- E. Permit application is completed and attached (if required) Y N

ELECTRICAL REQUIREMENTS

- A. For central/string inverter systems, strings are not combined prior to the inverter Y N
- B. For central/string inverter systems: No more than two inverters are utilized Y N
- C. The PV system is interconnected to a single-phase AC service panel of nominal 120/220 V ac with a bus bar rating of 225 A or less Y N
- D. A Solar PV Plan and supporting documentation is completed and attached Y N

STRUCTURAL REQUIREMENTS

- A. A completed Structural Criteria and supporting documentation is attached (if required) Y N
- B. No visible structural deficiencies or deflection in the roof structure Y N
- C. The dwelling is located in a ZERO snow load area Y N
- D. The dwelling is not located in Wind Exposure D (structure is not on a hill with an average slope greater than 15%, or within 200 yards of the ocean or large coastal bay) Y N
- E. Only one roof covering is installed on the roof Y N
- F. I have verified that all rail attachments points are > 1 foot from any splices or connectors on the top chord of trusses (when the roof framing consists of manufactured plated wood trusses), which are spaced at 24 inches on center. ***If the splice locations are not verified or the truss spacing is 16 inches on center then the rail spacing is required to be 4 foot on center and alternating instead of 6 foot on center.*** Y N
- G. Anchor fastener data: Are 5/16" diameter lag screws with 2.5" embedment into the rafter, used, OR does the anchor fastener meet the manufacturer's guidelines? Y N

FIRE SAFETY REQUIREMENTS

- A. Clear access pathways provided Y N
- B. Fire classification solar system is provided Y N
- C. All required markings and labels are provided Y N
- D. A diagram of the roof layout of all panels, modules, clear access pathways and approximate locations of electrical disconnecting means and roof access points is completed and attached Y N

PROPERTY OWNER _____

PROJECT LOCATION _____

INSTALLER COMPANY NAME _____

INSTALLER BUSINESS ADDRESS _____

INSTALLER BUSINESS PHONE _____

INSTALLER LICENSE NUMBER _____

INSTALLER SIGNATURE _____ DATE _____

**** By signing this form, I am confirming that all the information I have indicated by a checkmark is true.***