Submittal Requirements Bulletin – Solar Photovoltaic Installations 10 kW or Less in One- and Two-Family Dwellings

This information bulletin is published to guide applicants through a streamlined permitting process for solar photovoltaic (PV) projects 10 kW in size or smaller. This bulletin provides information about submittal requirements for plan review, required fees and inspections.

1. Approval Requirements

The following permits are required to install a solar PV system with a maximum power output of 10 kW or less: **Building permit**

a) **Expedited Permits for Simplified Standard Plans:** Planning review **is not** required for solar PV installations of this size **at the building counter**. Plan review **will occur** once the permit is issued **during inspection at the job site**. Separate Fire Department approval is not required for solar PV installations of this size (All Fire conformance requirements shall apply).

b) **Comprehensive Standard Plans:** Solar applications which do not meet the conditions for "Simplified Standard Plans" submittal shall be applied for through our standard solar PV application and plan review process, with a minimum five to ten day plan review period. Please find these requirements at:
http://www.sccoplanning.com/LinkClick.aspx?fileticket=bub1LsX28Js%3d&tabid=1153&portalid=2

2. Submittal Requirements

a) Two sets of complete permit application forms shall be submitted to the Building Department for approval and shall include the following:
Toolkit document #2, #3 or #4, #5 and all equipment specifications and supporting documentation.

b) Demonstrate compliance with the **Toolkit Document #2, "Eligibility Checklist for Expedited Permitting".** These criteria can be downloaded at:
http://www.sccoplanning.com/PlanningHome/BuildingSafety/AlternativeEnergy/Photo-VoltaicSystems.aspx
Toolkit Document #2 Eligibility Checklist for Expedited Solar PV Permitting

c) A completed Simplified Standard Electrical Plan. The simplified standard plan shall be used for proposed solar installations 10 kW in size or smaller and can be downloaded at:
http://www.sccoplanning.com/PlanningHome/BuildingSafety/AlternativeEnergy/Photo-VoltaicSystems.aspx

Toolkit Document #3 - Solar PV Standard Plan - Simplified Central/String Inverter Systems

Toolkit Document #4 - Solar PV Standard Plan - Simplified Microinverter and ACM Systems

d) A roof plan showing roof layout, PV panels and the following fire safety items: approximate location of roof access point, location of code-compliant access pathways, PV system fire classification and the locations of all required labels and markings. Examples of clear path access pathways are available in the State Fire Marshal Solar PV Installation Guide.
http://osfm.fire.ca.gov/pdf/reports/solarphotovoltaicguideline.pdf

e) A completed **Toolkit Document #5** "Structural Criteria", along with required documentation. Structural Criteria can be downloaded at:

http://www.sccoplanning.com/Portals/2/County/Planning/env/Toolkit_Document_5.pdf
Toolkit Document # 5 Structural Criteria for Residential Rooftop Solar Energy Installations

For non-qualifying systems, provide structural drawings and calculations stamped and signed by a California-licensed Civil or Structural Engineer, along with the following information.

- The type of roof covering and the number of roof coverings installed
- Type of roof framing, size of members and spacing
- 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
- Where an approved racking system is used, provide documentation showing manufacture of the rack system, maximum allowable weight the system can support, attachment method to the roof or ground and product evaluation information or structural design for the rack system

3. Permit Application

Expedited Permits for Simplified Standard Plans: Photovoltaic permit applications may be applied for directly at our Building Counter or by submitting online with pickup at the Building Counter or by return mail.

a) **Direct in Person Application Submittal to the Building Counter**

Permit applications may be submitted to the County of Santa Cruz Planning Department in person at 701 Ocean St., Suite 400, (fourth floor), Santa Cruz CA, 95060 during office hours.
Permit applications utilizing "Simplified Standard Plans" may be approved "Over the Counter".
Permits not approved as "Over the Counter" will be reviewed in five to ten business days.

b) **Online Application Submittals**

Permit applications for **"Simplified Standard Plans"** may be submitted online to the County of Santa Cruz Planning Department at SolarPV@santacruzcounty.us . Complete applications will be approved within 24 hours of the application submittal date (business days, excluding weekends).
"Comprehensive Standard Plans" shall be submitted in person to the Building Counter and will be reviewed in five to ten business days.

Online Simplified Standard Plans applications shall also include the following forms:

1) County of Santa Cruz Building Permit Application
2) County of Santa Cruz Owner-Agent Form
3) County of Santa Cruz Disclosures & Forms for Owner-Builders Applying for Construction Permits

c) **Credit Card Program Setup**

Prior to a successful submittal online a "Credit Card Program Request Form" shall be completed with the department cashier during business hours. Please contact the cashier at 831 454-3250 to set up your account prior to any online submittals.

4. Fees $552.00

5. 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 is granted for the solar system. On-site inspections can be scheduled by contacting **Building Inspection Scheduling** by telephone at 831 454-2077 or electronically at http://www.sccoplanning.com/PlanningHome/BuildingSafety/Inspections/ScheduleaBuildingInspection.aspx Inspection requests shall be scheduled **a minimum of one day in advance** for the next business day. PV final inspections **may not be** scheduled for a Friday. Expedited PV permits **allow for one site inspection**, any plan deficiencies, installation corrections, smoke and carbon monoxide detector omissions or missed inspections shall require a minimum of a **one hour inspection time fee prior to re-inspect**.

Permit holders must be prepared to show conformance with all technical requirements in the field at the time of inspection. The inspector will verify that the installation is in conformance with applicable code requirements and with the approved plans.

The inspection checklist provides an overview of common points of inspection that the applicant should be prepared to show compliance with and is available on our website at http://www.sccoplanning.com/Portals/2/County/Planning/env/Toolkit_Document_6.pdf.

If not available, common checks include the following:

- Number of PV modules and model number match plans and specification sheets.
- Array conductors and components are installed in a neat and workman-like manner.
- PV array is properly grounded.
- Electrical boxes are accessible and connections are suitable for environment.
- Array is fastened and sealed according to attachment detail.
- Conductor ratings and sizes match plans.
- Appropriate signs are property constructed, installed and displayed, including the following.
  - Sign identifying PV power source system attributes at DC disconnect
  - Sign identifying AC point of connection
  - Sign identifying switch for alternative power system
- Equipment ratings are consistent with application and installed signs on the installation, including the following.
  - Inverter has a rating as high as max voltage on PV power source sign.
  - DC-side overcurrent circuit protection devices (OCPDs) are DC rated at least as high as max voltage on sign.
  - 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).
  - 600VDC switches require passing through the switch poles twice in a specific way).
  - Inverter is rated for the site AC voltage supplied and shown on the AC point of connection sign.
  - OCPD connected 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.
  - Sum of the main OCPD and the inverter OCPD is rated for not more than 120% of the bus bar rating.

6. Departmental Contact Information

For additional information regarding this permit process, please consult our departmental website at http://www.sccoplanning.com or contact
Building Official - Tony Falcone, Office- 831 454-3195, or Tony.Falcone@santacruzcounty.us
Senior Building Inspector - Sean Livingston, Office - 831 454-3096, or Sean.Livingston@santacruzcounty.us