



Submittal Requirements for a Roof-Mounted Solar Photovoltaic Installation 10 kW or Less on a One- or Two-Family Dwelling

This information is provided to guide applicants through the permit application process for **roof-mounted solar photovoltaic (PV) projects 10 kW in size or smaller ONLY** and includes information about the application submittal requirements, plan review, required fees, and inspections.

1. Approval Requirements

- a) An electrical permit is required to install a roof-mounted solar PV system with a maximum power output of 10 kW or less.
- b) Planning review is not required for solar PV installations of this size.
- c) Fire Department approval is not required for solar PV installations of this size. NOTE: The Building Division will perform the plan check and inspection for this application.

2. Submittal Requirements

- a) A completed permit application form
 - 1) Permit applications may be submitted [here](#) through the City of Burlingame website; or
 - 2) Permit applications may be submitted by email at BuildingDept-Solar@burlingame.org; or
 - 3) Permit applications can also be submitted to the City of Burlingame, Building Division in person at 501 Primrose Road, Burlingame, CA 94010 during normal business hours.
- b) This application must demonstrate compliance with the eligibility checklist for expedited permitting.
- c) A completed Standard Electrical Plan. The standard plan may be used for proposed roof-mounted solar installations 10 kW in size or smaller ONLY.

The electrical plan must include the following:

- *Locations of main service and/or utility disconnect*
 - *Total number of modules, number of modules per string, and the total number of strings*
 - *Make and model of inverter(s) and/or combiner box, if used*
 - *A single-line diagram of the system*
 - *Specify grounding/bonding, conductor type and size, conduit type, and size and number of conductors in each section of the conduit*
 - *If batteries are to be installed, include them in the diagram and show their locations and venting*
 - *Equipment cut sheets including inverters, modules, AC and DC disconnects, combiners, and wind generators*
 - *Labeling of equipment as required by CEC, Sections 690 and 705*
 - *Site diagram showing the arrangement of panels on the roof or ground, north arrow, lot dimensions, and the distance from property lines to adjacent buildings/structures (existing and proposed)*
- d) A roof plan showing the roof layout, PV panels, and the following fire safety items: approximate location of roof access points, 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>.

NOTE: The roof plan must show compliance with the requirements found in the latest editions of the California Building Code, California Fire Code, California Residential Code, and California Electrical Code. If there is a conflict between the regulations found in these Codes and the recommendations found in the State Fire Marshal Solar PV Installation Guide (above) then the Code requirements will govern.

- e) 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

A full explanation of the methods and calculations used to produce these criteria can be found in the Structural Technical Appendix for Residential Rooftop Solar Installations, which is available at http://www.opr.ca.gov/docs/Solar_Structural_Technical_Appendix.pdf.

3. Plan Review

Building permit applications for small residential rooftop solar systems can be submitted in person to the Building Division at 501 Primrose Road, Burlingame, CA 94010, [here](#) through the City of Burlingame website, or via email at BuildingDept-Solar@burlingame.org. Building permit applications for small residential rooftop solar systems will be plan checked in a timely manner; within three business days.

4. Fees

According to the Burlingame Master Fee Schedule in effect at the time of permit application

5. Inspections

When the plans have been approved, the building permit to construct the solar installation has 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 the City of Burlingame, Building Division by telephone at 650-558-7260. Inspection requests are scheduled no more than two business days in advance. Except during peak inspection periods inspections can be expected to take place within two business days.

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 with which the installer must be prepared to show compliance. Common inspection checklist items include the following.

- The number of PV modules and the model numbers must match the plans and specification sheets.
- The array conductors and components are installed in a neat and workman-like manner.
- The PV array is properly grounded.
- All electrical boxes are accessible and connections are suitable for environment.

- Array is fastened and sealed according to the attachment detail.
- The conductor ratings and sizes match the plans.
- Appropriate signs are properly constructed, installed, and displayed, including the following:
 - A sign identifying the PV power source system attributes at the DC disconnect
 - A sign identifying the AC point of connection
 - A sign identifying the switch for alternative power system
- All equipment ratings are consistent with the application and with the signs installed on the equipment, including the following:
 - The inverter has a rating as high as the maximum voltage on the PV power source sign.
 - The DC-side overcurrent circuit protection devices (OCPDs) are DC rated at least as high as the maximum voltage on the sign.
 - All 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).
 - The inverter is rated for the site AC voltage supplied and is shown on the AC point of connection sign.
 - The OCPD connected to the AC output of the inverter is rated at least 125% of maximum current on the sign and is no larger than the maximum OCPD on the inverter listing label.
 - The sum of the main OCPD and the inverter OCPD is rated for not more than 120% of the bus bar rating.

6. Contact Information

For additional information regarding this application process contact the Building Division at 650-558-7260.