



DEPARTMENT OF PLANNING & BUILDING
BUILDING DIVISION
 276 Fourth Avenue, Chula Vista CA 91910
 619-691-5272 619-585-5681 FAX

SOLAR PHOTOVOLTAIC SYSTEMS: MINIMUM SUBMITTAL REQUIREMENTS

FORM 4613

Documents referenced in this Form

- **Form 4595, How to Prepare a Residential Plot Plan**
- **Form 4610, Who May Prepare Plans & Incomplete Plans**

If you install a photovoltaic power system, you must first obtain a building permit.

As a permit applicant, you will need to complete the forms listed below, provide three copies of the plans listed below, and pay the necessary plan check fees. See Form 4610, "Who May Prepare Plans & Incomplete Plans."

Applicants, whose projects require other approvals such as Planning Use Permits, Design Review, etc., should consult those other Departments/Divisions first and, at a minimum, obtain their preliminary approval prior to submitting plans to the Building Division for a building permit. Those other approvals may require that you make separate submittals to other departments/divisions.

Please note that Planning Division approval is required. You can reach Planning Division (Zoning Information) @ (619) 691-5101.

For clarification or additional information for a specific project, please call (619) 691-5272 or visit the Public Service Counter, Building Division, at 276 Fourth Avenue, Chula Vista.

I. PLAN SPECIFICATION

You must submit three identical sets of plans to the Building Division. Plans must be drawn to scale and must be of sufficient clarity to indicate the location and extent of the work proposed. Plans must show in detail that the proposed work will conform to the provisions of all building regulations in effect in the City of Chula Vista on the day you submit plans and pay fees. Label and dimension all items on the plans. Section IV, "Drawings to Supply" identifies minimum items you must include on the plans.

II. FORMS TO COMPLETE

A. Building Permit Worksheet/Minor Permit Worksheet

California Law requires that every permit applicant supply specific information and make certain declarations regarding the proposed work.

At plan submittal time, you will need the job address, legal description, existing use, description of work, and name and address of the applicant and the owner.

B. Owner Builder Form

An owner/builder verification form is required for all owner/builder projects. This form will be sent by mail to the owner or may be given at the Building Counter to the owner with a valid identification.

III. PLAN CHECK FEES

The plan check fees you must pay are based on the construction valuation established by the Building Division. They must be paid at the time the plans are submitted by cash or check. Please make checks payable to the "City of Chula Vista." It is best to bring a blank check. If you need assistance in estimating fees for plan submittal, call (619) 691-5272.

IV. REQUIRED INFORMATION ON THE PLANS

You must include the items listed below on the plans and provide the required supporting documentation. Please submit two copies of supporting documentation at time of permit application.

Plans must conform to the following:

- Be legible and fully dimensioned
- Must be drawn to scale. 1/4": 1 foot is preferable
- All notes must be clear and legible
- Pencil drawings or notations are not acceptable
- Paper should be of a uniform size no smaller than 8 1/2 " x 11" (Except for Plot Plan)

A. Title/Plot Plan

This plan shows the general layout of the lot and must include the following information (See Form 4595, How to Prepare a Residential Plot Plan):

1. Site address.
2. Name, title, address and phone number of responsible parties (Owner, Contractor, etc.)

3. Scope of work.
4. List of all current editions of codes that apply to the proposed construction (2001 CBC and 2001 CEC are current at this time).
5. Property lines and dimensions.
6. Adjacent streets
7. Location and use of all existing buildings
8. Distances from the street property line to the nearest building or structure; distances from exterior building walls to the nearest adjacent property line or building.
9. Show location of existing electrical service(s) and panels.
10. Show location of all solar equipment including number of modules in series, number of panels (groups or modules) in parallel.

B. Roof & Structural Plans

Plans must show:

1. Roof pitch.
2. Spacing and size of roof members.
3. Type of roof covering.
4. Details for the assembly of the modules and for the connection of the modules to roof members. Indicate type, size and spacing of fasteners. The attachment of the panels/modules must resist 70 MPH wind speed per 2001 CBC chapter 16, Division III, WIND DESIGN. **Structural calculations/analysis may be required on roof-mounted systems where the modules are installed at an angle to the roof (the plane of the modules is not parallel to the plane of the roof.)** Calculations must be stamped and signed by a California licensed engineer or architect.
5. Weather sealing of roof penetrations.

C. Elevations

Provide elevation drawings showing the height of the building and the height of the panels/modules above the roof surface. Show the degree of rise in relation to the roof structure and the distance from the roof structure to the panels/modules.

D. Screening

The back and sides of the modules must be screened where the modules tilt or project higher than the height of the structure. Screening must not reduce the performance of the modules/system by blocking sunlight to any of the photovoltaic cells.

Screening material used must be weather proofed and painted to match the color of the roof/structure.

E. Electrical Plans

1. **Note on Plans:** Photovoltaic System installation shall comply with the requirements of Article 690 of the 2001 California Electrical Code (CEC).
2. Provide manufacturers' information for the solar system equipment including: solar panels, inverter(s), and other solar components that will be installed. Specification sheets must indicate the listing agency and that the equipment complies with Article 690 of the 2001 CEC.
3. Provide an electrical single line diagram showing the existing electrical service(s) and panels and any upgrades to the panel(s). The electrical single line diagram shall describe the electrical installation from the existing service to the solar panels. Specify conductor size and insulation type, grounding, Ground-Fault Protection per Sect. 690-5, disconnect location, amperage loading and a voltage description of all circuits.
4. Detail the location of all solar equipment including the solar panel layout, inverter(s) and the optional equipment that will be installed under this permit (batteries, generators, etc.). Specify the maximum voltage per panel.
5. Include the following notes describing required permanent signage:
 - To be installed adjacent to the main electrical service: **"This electrical service is also served by a photovoltaic (solar) power system, 1 of 2 Disconnects."**
 - To be installed at the main electrical service photovoltaic disconnect: **"Photovoltaic Disconnect Means, 2 of 2 Disconnects."**
 - To be installed where terminals of the disconnect may be energized in the open position: **"Warning-Electrical shock hazard – Terminals on both lines and load sides may be energized in the open position. Dual Power Supply-Photovoltaic System."**
6. Detail grounding throughout the system from the solar panels/modules to the main electric panel.
7. Detail grounding system: cold water and grounding electrode for the main panel.
8. Systems ratings must be labeled: operating current, voltage, maximum voltage, and short circuit current (CEC 690-51.)
9. Detail Interactive Point of Connection (system connection to main panel/sub-panel.)