



Siskiyou County Community Development

Division of Building and Safety

RESIDENTIAL SOLAR PHOTOVOLTAIC SYSTEMS BULLETIN

Building Permit Submittal Requirements

Inspection & Certification

Siskiyou County California
Mountains of Opportunity

Purpose:

This bulletin provides information regarding the application for a building permit, the permitting Inspection, and the Certification verification process.

It explains the required Title 24 energy compliance forms that must be submitted to the Siskiyou County Building Division to show compliance with the California Energy Code (Title 24) for residential photovoltaic (PV) systems. These documents are required to be registered in a California Energy Commission (CEC)–approved ECC registry.

Mandatory requirements:

*All new Single-Family Dwellings and ADU, Accessory Dwelling Units submitted after January 1, 2020, require roof or ground mounted photovoltaic systems. Required Battery Energy Storage Systems requirement will be covered in a separate Bulletin. PV system shall be installed by a California Licensed (B, C-46 or C-10) contractor.

Plans shall accurately represent the work to be installed and shall comply with the current California Building Code, California Energy Commission (CEC), California Residential Code (CRC), California Electrical Code (CEC), California Fire Code (CFC) & the latest version of the Residential Compliance Manual, Referencing Chapter 7 and Appendix JA11 – Qualification Requirements for Photovoltaic System.

Newly installed residential roof or ground mounted PV system will also require additional specific documents that must be filed with the JHA prior to a request for a final inspection, see requirements listed below.

Part 1 - Building permit submittal requirements:

Please complete the building permit application, the owner builder forms and the property owners' packet. These are available on-line at <https://www.co.siskiyou.ca.us/building>

Supporting documents – provide two copies of the following building plans and support documents:

Roof mounted PV Projects:

Provide structural calculations, prepared by a licensed California design professional for roof mounted systems justifying that the new or existing roof structure can support the added PV loading.

Ground mounted PV Projects:

Provide structural calculations, prepared by a licensed California design professional for ground mounted systems justifying that the footing structure that supports the PV rack system and

module loading. The installation location of the PV system must be show on the Site plan!

Structural Calculations:

Verify with the County the specific loading requirement that must be applied to your project. The loading will be either 40psf (Pf) or 60psf (Pf) (below 5000-foot elevation) (ground snow loads do not apply) for roof or ground mounted systems. NO reduction of the loads is allowed.

Energy Compliance Documents:

All solar PV Title 24 Energy compliance documentation forms must be included at submittal. If the site has limited solar access, the required Solar PV exemption forms **MUST** be submitted with the initial plan submittal package **no exceptions**. [7.2.2 Exception to PV requirements]

Plan submittal requirements:

Building permit application, two copies of the following plan sets 11” x 17”. Larger sheets are acceptable but using 11” x 17” if they are readable, will allow us to copy, scan and send email responses directly to the applicants. Providing quicker response times and better customer service.

Cover sheet:

Name and address of property owner, list the current scope of work documented on the plans, Project Data - including assessor’s parcel number, use of building onsite, general scope of the PV system characteristics, number and manufactures number of modules, inverter number, size of the main service entrance, size of back-feed breaker, electrical notes, general notes, jurisdiction notes etc., Vicinity map, Sheet index, Current up to date California contractor license number and type, contact information including address, The cell phone number and email address of the on-site contact person etc.

Overall site plan - roof or ground mounted systems:

Site plan shall include property boundaries, all structures on property and north arrow clearly identifying the location of the PV installation. Site Plan shall show the location of driveway access, underground trenching and a detail showing the trench depth and conduit depths and locations, location of electrical service, combiner box, inverter, a/c & d/c disconnects, junction boxes and battery banks.

Enlarged ground mounted plan:

Enlarged Plan to scale for Ground mounted systems shall identify all structures on property, driveway access, shall show the specific area of the PV installation, specific location of all the electrical equipment, footing layout, spacing and detail(s) of the footings. Plan shall show the location of all electrical service, combiner box, inverter, a/c & d/c disconnects, junction boxes and battery banks, generators, etc.

Enlarged roof - site plan:

The roof plan to scale shall show the specific area of the PV installation, the roof racking elements, showing the attachment points (4’-0” spacing on center both directions for 40 psf roof loads) existing dormer shading locations and how it may affect the operation and location of the PV system, specific location of all the electrical equipment, Fire department access and roof top clearances. Plan shall indicate location of all electrical service, combiner box, inverter, a/c & d/c disconnects, junction boxes and battery banks, generators, etc.

Construction plans:

Roof Mount: Provide Roof Plan indicating location and total coverage (area) of PV array. The roof plan shall show adequate access and pathways based on the State Fire Marshal’s Office and

CalFire. Provide Partial Roof Framing Plan identifying size and spans of members that support the PV system Provide details indicating attachment of PV modules to roof framing. Verify method of waterproofing and flashing.

Ground Mount: Foundation Plan with foundation details referenced to applicable details.

Electrical plans:

Electrical single-line diagram clearly identifying all devices installed in the PV system and indicating total kVA rating of system.

- 1) Array wiring identified
- 2) Combiner/junction box identified
- 3) Equipment grounding specified
- 4) Disconnect specified
- 5) Inverter specified
- 6) System grounding specified Clearly identify the point of interconnection with the utility supplied wiring system and provide details on main breaker,
- 7) PV breaker and rating of bussing. Indicate type and size of all conduits and conductors throughout the PV system
- 8) Provide typical details of safety signage. Signage shall be green or red plastic engraved with 1/2" high white letters, permanently mounted on or immediately next to the panel door. Identify location of service disconnecting means and PV system disconnect (for PV systems connected to utility services).
- 9) Plans shall indicate that the inverter disconnects are to be a separate component and serviceable. And, if applicable, plans shall identify the building or area to be served.
- 10) Identify DC array solar panel VOC and ISC rating on plans.

PV Equipment Manufacturer's Specification Cut Sheets:

1. PV modules, inverter manufacturer's specification sheets, Optimizer specifications, Disconnects, etc..

Part 2 - Solar Photovoltaic System Verification – During installation & before FINAL INSPECTION:

Solar Photovoltaic Systems Verification:

Residential Compliance Manual chapter 7 describes the compliance requirements for solar photovoltaic systems (PV) and solar readiness for newly constructed single-family residential buildings. To comply with the prescriptive requirements, all newly constructed single-family buildings must have a Solar PV installed unless the building qualifies for an exception specified in Section 150.1(c)14. Homes that qualify for an exception to not be required to comply with the PV system requirements are still subject to mandatory measures for solar readiness. The intent of the solar readiness requirement is to reserve a penetration-free and shade-free portion of the roof for the potential future installation of a solar energy system, plan for a pathway for connecting the components of the system and install a main electrical service panel that will enable a future system.

Compliance:

When a building permit application is submitted to the enforcement agency, the applicant also submits plans and energy compliance documentation. This section describes the forms and procedures for documenting compliance with the solar ready requirements of the Energy Code.

PV Plans Designer:

The designer must preparing construction and compliance documents, for the enforcement agency plan checkers who are examining those documents for compliance with the standards. There are certificates of installation forms associated with the low-rise residential solar photovoltaic system, battery storage systems and solar-ready requirements.

Certificate of Compliance (CF1R).CF2R-PVB-01-E)

This form is required for newly constructed single family residential projects to document that the solar and battery storage systems (where applicable) that were installed to match the Certificate of Compliance (CF1R) & CF2R-PVB-01-E, Certificate of Installation.

Inspection and Enforcement:

JA11.7 Certificates and Availability:

The PV installer shall certify on the Certificate of Installation that all provisions of JA11 are met and provide PV array geometries used in the performance calculation if applicable. The Certificate of Installation shall be available on the building site for inspections.

JA11.8 Enforcement Agency:

The local enforcement agency shall verify that all the Certificate of Installations is valid complete and correct, and uploaded into a Commission-approved registry

_____ / / 2025
Glenn Shockency, Architect. Deputy Director of Building Date: Code Cycle

Authority Cited:

Current applicable Building Code:
California Building Code (CBC),
California Energy Commission (CEC)
California Residential Code (CRC)
California Electrical Code (CEC, NFPA 70),
California Fire Code (CFC)
Latest version of the Residential Compliance Manual, Chapter 7 and Appendix JA11 – Qualification Requirements for Photovoltaic System