**SMALL RESIDENTIAL (< 10 kW) SOLAR PERMIT-STANDARD CONDITIONS**

**Land Use Services Department**

**Building & Safety Division**

***www.SBCounty.gov***

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[**http://cms.sbcounty.gov/lus/BuildingSafety/SolarPermitting.aspx**](http://cms.sbcounty.gov/lus/BuildingSafety/SolarPermitting.aspx)

**All of the following conditions contained herein are applicable and must be incorporated into the construction of the project. Additional comments or corrective action(s) may be required by the Building Inspector if any applicable codes or regulations are violated.**

1. The project must fully comply with the most current version of the **2013 California Building Standards Codes** as adopted by the County of San Bernardino.
2. Working clearances around all electrical equipment shall be maintained in accordance with **CEC 110.26.**
3. PV equipment and all associated wiring and interconnections shall only be installed by qualified persons. **CEC 690.4 (E)**
4. Rooftop mounted PV system panels and modules shall meet a minimum fire classification as required by **R902.4** and **CBC 1505.9.**
5. All photovoltaic inverters must be listed and labeled as **UL 1741** compliant. **CEC 690.4 (D)**
6. Arc Fault (AFCI) DC circuit protection is required for all PV systems on or penetrating a building with a maximum system voltage of 80 volts or greater. The AFCI protection shall be listed and labeled in accordance with **UL 1699 (B).** **CEC 690.11**
7. PV systems shall be provided with DC ground-fault protection. **CEC 690.5**
8. PV panels mounted on a rooftop shall be listed and labeled in accordance with **UL 1703** and shall be installed in accordance with the manufacturer installation instructions. **R908.1.5**
9. All associated electrical equipment required for the PV system shall be listed and labeled.
10. Approved smoke and carbon monoxide alarms are required within the dwelling unit and shall be field verified either through final building inspection or a County of San Bernardino Self-Certification Form. Smoke alarms are required to be installed in all bedrooms, outside each bedroom, and at least one on each floor of the house. Carbon Monoxide alarms are required outside each bedroom and at least one on each floor of the house. **R314.1, R315.1**
11. A minimum of 6 inches shall be maintained between any plumbing sewer vents extending through the roof and the underside of the photovoltaic panels. **CPC 906**
12. All new rooftop penetrations shall be sealed and made weather tight with approved materials.
13. Appropriate working clearances shall be provided around existing rooftop equipment. **CMC 304.1**
14. DC conductors run inside a building (or attic) shall be contained in a metal raceway and appropriately marked and identified. **CEC 690.31 (E)**
15. All exterior conduit, fittings, and boxes shall be rain-tight and approved for use in wet locations, NEMA 3 minimum and properly supported. **CEC 314.15**
16. Any conductors exposed to sunlight shall be listed as sunlight resistant. **CEC 300.6 C (1)**
17. All metallic raceways and equipment shall be bonded and electrically continuous. **CEC 250.90**
18. Grounding electrode conductors shall be continuous, except for splices or joints at bus bars within listed equipment. **CEC 250.64 (C)**
19. The PV system back-fed breaker shall be installed on the opposite end of the bus bar. **CEC 705.12 (D) 7**
20. The AC disconnect shall be a **“**Knife blade**”** type disconnect. **NEMA 6.3** and **NEC 690.17**
21. If the AC disconnect of the PV system is not adjacent, visible and readily accessible from the meter/panel the disconnect must be lockable.
22. Revised plans shall be required to be resubmitted if the installed array and associated equipment does not match the approved building plans. Additional fees shall also apply.
23. The placement of the Utility PV Production Meter must be placed between the Main Electrical Service and the Utility AC disconnect.
24. New electrical shall be located at least three (3) feet (0.9 m) from Gas meter or Gas shutoff/valves. [NFPA 54:5.7.2.3]
25. Notify serving utility before activation of PV system.
26. Existing main breaker and Solar back-feed breaker does not exceed

1)120% of top fed busbar rating or 2) 100% of center fed busbar rating **(CEC 705.12 D(2))**

1. Licensed C-10 or C-46 Contractor can prepare & sign PV plans only if they are performing the work, otherwise plans shall be prepared by a licensed California Civil Engineer **(B & P Code 5537.2, 5537.4 and 6737.4)**
2. Proposed racking system California Engineering Certification has been Provided
3. Roof covering shall be Class A, in a non-deteriorated state and no more than 2 roof layers. Pursuant to **CRC Chapter 9**
4. The weight of the new solar array(including all mounting equipment) is less than 4 lbs.ft2
5. The roof anchors are an industry standard 5/16 inch bolt with a minimum 2 1/2” penetration into the existing roof framing members or equivalent
6. The existing roof framing members supporting the solar array are in good service, materially sound, and are not considered substandard.
7. 1) Location is not in a snow load area: The racking system standoffs are spaced no more than 4 ft. on center; or 6 ft. and staggered

2) Location is in a snow load area: The racking system standoffs are attached at every rafter.

1. Provide screening surrounding the lower portion of the entire array at the roof line to prevent debris from collecting under the panels
2. **Attic access shall be provided at time of final inspection to confirm rafter size and that fasteners have not missed framing members.\***

**\* Or Engineer of Record shall provide a structural observation report that identifies any deficiencies. This report shall be to the best of the structural observer’s knowledge and address all items pursuant to CBC 1704.5.2, item 4 (include stamp and signature)**

**Project Address:**

**This checklist must be signed by either:**

**California Licensed Design Professional:**

**Print Name:**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Signature:**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**California License #:**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**California License Designation (circle applicable):**

**a. Architect**

**b. Civil**

**c. Electrical**

**The B, C-10 or C-46 Contractor:**

**Print Name:**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Signature:**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**California License #:**

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