



City of Atascadero
Community Development Department

PUBLIC INFORMATION - BUILDING SERVICES

Community Development Department 6500 Palma Avenue Atascadero, CA 93422 (805) 461-5035 fax (805) 461-7612

SOLAR PHOTOVOLTAIC INSTALLATION SUBMITTAL CHECKLIST

SEISMIC DESIGN CATEGORY C, D or E - CLIMATE ZONE 4 - WIND ZONES 85 M.P.H - EXPOSURE ZONE "B" OR "C"
ZONING ORDINANCE - NATIVE TREE ORDINANCE - ATASCADERO MUNICIPAL CODE - 2013 CBC - 2013 CRC - 2013 CEC
2013 CPC - 2013 CMC - 2013 CGBC - ENGINEERING STANDARDS - CALIFORNIA STATE ENERGY COMPLIANCE (TITLE 24)

PERMIT SUBMITTALS ACCEPTED MONDAY – FRIDAY BETWEEN 8:30 A.M. - 4:30 P.M.

Incomplete submittals will not be accepted at the permit counter

- Complete Application:** Must be signed by **Owner, Agent** (with approved written authorization), or **Licensed A, B, C-46 or C-10 Contractor**.
- Permit Fee:** \$ 338.38 (cash or check only). Permit fee covers two iterations of plan review.
Permit fees are required to be paid in full at submittal.
Ground Mount PV systems may require Tree Protection.
- One (1) Additional Roof Plan Layout for County Assessor**
- Site Plan (2 sets)** – Provide fully dimensioned site plan. Show property lines, location, size and use of all structures. Show location of array, size and location of service panel, subpanels and inverters. Site plans for ground mount systems shall show distance to property lines from array, easements, location of underground conduit runs and locations of all native trees having drip lines within 20' of proposed footings and trenching excavations.
- Structural Design Package (2 sets)** – Roof Mount: Describe and show roof structural elements. Provide detail of mounting hardware attachment to roof framing members. Provide manufacturer information on rail-type systems including allowable span and cantilever. Show layout of arrays and attachment points. Provide roof penetration flashing detail. All commercial systems require a structural analysis by a California licensed engineer or architect. Residential engineered truss roof systems require a review by a California licensed engineer or architect. Ground Mount: Provide engineering calculations demonstrating the adequacy of footings and supporting members, including seismic and wind uplift effects. Provide footing detail showing size and reinforcement.
- Electrical Line Drawing** – Provide a single line diagram. Show the number of modules in series, number of parallel source circuits, and total number of modules, DC operating voltage, operating current and short-circuit current. Show I_{sc} corrected for continuous load and extreme irradiance (combined factor of 1.56). Show series V_{oc} corrected for temperature per module specification sheet or Table 690.7 (21F, factor of 1.14 for Atascadero, CA). Show conductor types and sizes and conductor ampacity corrected for number of current carrying conductors in a raceway, ambient temperature (108F, factor of .87 for Atascadero, CA), and ambient temperature adjustment for conduits exposed to sunlight on or above rooftops (Table 315(B)(2)). Show all calculations. Show equipment ground. Provide listing information for combiner box. For circuits over 250 volts to ground, the electrical continuity of metallic raceways shall be ensured by connections using threaded couplings or listed devices such as bonding type locknuts or bushings with bonding jumpers. Size AC conductors from inverter to panel at 125% of maximum output and correct for ambient temperature.

- ❑ **Mounting System Grounding** – Provide detail. All hardware to be stainless steel or listed for direct burial. Machine screw-type fasteners must engage not less than two threads or be secured by a nut. Lay-in lugs not grounded through threads require a star washer between the lay-in lug and module frame.
- ❑ **Module Information and Grounding** – Provide module manufacturer specification sheet. Modules are to be listed to UL 1703 standard. Provide grounding detail per manufacturer’s grounding instructions and/or the electrical code. WEEB clips are acceptable. Show an additional grounding electrode(s) installed in accordance with 250.52 as close as practicable to all arrays unless if located within 6’ of the premises wiring electrode. Ferrous metal raceways for grounding electrode conductors shall be bonded at each end.
- ❑ **Inverter Information and Grounding** – Provide inverter manufacturer specification sheet. Inverters to be listed to UL 1741 standard. Show a #8Cu grounding electrode conductor installed from the inverter to the service panel. Show AC and DC disconnects in a readily accessible location on the outside of the building. Inverter integral AC/DC disconnects must allow for the removal of the inverter for service or replacement. Exterior mounted inverters in not-readily-accessible locations shall have AC and DC disconnects located within sight of the inverter.
- ❑ **Service Panel** – Show the PV source circuit breakers sized at a minimum of 125% of the maximum inverter output and the total value of all circuit breakers not exceeding 120% of the bus bar rating of the panel. Note on plans that the PV breaker is to be located opposite the main breaker on the bus bar. In order to downsize a main breaker to allow for a larger PV source circuit a service load calculation per Article 220 is to be submitted showing that the downsized breaker is adequate for the calculated service load.
- ❑ **Labeling** – Marking to be placed on all interior and exterior DC conduit, raceways, enclosures and cable assemblies, every 10’, at turns and above and/or below penetrations and all DC combiner and junction boxes. Marking content: CAUTION: SOLAR CIRCUIT in red background, white lettering, minimum 3/8” letter height, all capital letters, Arial or similar font, non-bold, reflective, weather resistant material suitable for the environment (durable adhesives meet this requirement). Provide all other labeling per CEC Article 690.
- ❑ **Roof Access** – Residential systems require two 3’ wide access paths from eave-to-ridge on each roof slope on which modules are located. Rake/gable paths are to be measured 3’ from load-bearing roof framing to array edge and around obstructions. Modules placed on one side of a hip/valley, the 3’ access path may be located on either side of the hip/valley. If modules will be placed on both sides of the hip/valley, there must be a 3’ access path on each side of the hip/valley and around obstructions. Modules are to be located a minimum of 3’ from ridges (*Exception: Roofs with a pitch 2-in-12 or less and non-habitable structures*).
- ❑ **Please refer to the [Fire Department Solar Guidelines](#) for access requirements on commercial buildings.**