

A policy is based on a code interpretation and is subject to change at any time

PV System Exceptions

The California Energy Code (CEC) 150.1(c)14 requires new single-family residential buildings to include a newly installed photovoltaic (PV) system. However, there are a few exceptions where no PV system is required:

1. **Limited SARA***: No PV system is required if the Solar Access Roof Area (SARA) is less than 80 contiguous square feet. For steep slope roofs (greater than or equal to 2:12), SARA shall not consider roof areas with a northerly azimuth that lies between 300 degrees and 90 degrees from true north.
2. **Small PV Size**: No PV system is required when the minimum PV system size specified by CEC Section 150.1(c)14 is less than 1.8 kW_{DC} (for one dwelling unit: < 652 sq ft (CZ 12) / < 983 sq ft (CZ 16)).
3. **Snow Loads****: Buildings with enforcement-authority-approved roof designs, where the enforcement authority determines it is not possible for the PV system, including panels, modules and components and supports and attachments to the roof structure, to meet the requirements of the American Society of Civil Engineers (ASCE), Standard 7-16, Chapter 7, Snow Loads.
4. **Planning Approval Prior to January 1, 2020**: For buildings that are approved by the local planning department prior to January 1, 2020 with mandatory conditions for approval:
 - a) Shading from roof designs and configurations for steep-sloped roofs, which are required by the mandatory conditions for approval, shall be considered for the annual solar access calculations;
 - b) Roof areas that are not allowed by the mandatory conditions for approval to have PVs, shall not be considered in determining the SARA.
5. **BESS Installed with 7.5 kWh or Greater**: PV system sizes determined using CEC Equation 150.1-C may be reduced by 25 percent if installed in conjunction with a battery energy storage system (BESS). The BESS shall meet the qualification requirements specified in CEC Joint Appendix JA12 and have a minimum usable capacity of 7.5 kWh as defined in CEC Joint Appendix JA12.

While the CEC provides the framework for these exceptions, the Building Department retains authority to review and approve each request to ensure it meets the intended criteria.

*For exceptions related to limited SARA, a CEC approved solar assessment tool must be used to verify and document the shading conditions and solar access of a PV system. A list of the current CEC approved assessment tools can be found at the following link: <https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/solar-assessment-tools>

**For exceptions related to snow loads, a registered design professional shall provide supporting documentation for Building Department review.