

PHOTOVOLTAIC REQUIREMENTS - RESIDENTIAL COMPLIANCE FORM

In accordance with Title 24, Part 6, Section 150.1(c)14, all low-rise residential buildings shall have a photovoltaic (PV) system meeting the minimum qualification requirements as specified in Joint Appendix JA11, with an annual electrical output equal to or greater than the dwelling's annual electrical usage as determined by Equation 150.1-C.

This document shall be filled out and a PV plan that graphically shows all design features shall be incorporated into the plan set along with all required energy forms.

To learn more about the 2019 Building Energy Efficiency Standards, please visit energy.ca.gov.

Project Address: _____ Permit Number: _____

APPLICANT INFORMATION:

Name: _____ Phone Number: _____

Address: _____ Email Address: _____

OWNER INFORMATION:

☐ Check here if owner is the applicant

Name: _____ Phone Number: _____

Address: _____ Email Address: _____

METHOD OF COMPLIANCE:

☐ This permit meets an exception to Title 24, Part 6, Section 150.1(c)14. By signing below I am affirming that I have attached sufficient substantiation that complies with Exception _____. (see exceptions page 2)

Sign Here: _____ **Date:** _____

☐ By signing below I am affirming that I am aware of the minimum PV requirements and that a PV plan has been incorporated into the plan set that satisfies these minimum requirements.

Sign Here: _____ **Date:** _____

Equation 150.1-C Annual Electrical Output	Table 150.1-C CFA and Dwelling Adjustment Factors		
$kW_{PV} = (CFA \times A)/1000 + (NDwell \times B)$ where: kW_{PV} = kWdc size of the PV system CFA = Conditioned floor area of the building in sq. ft. $NDwell$ = Number of dwelling units A = Adjustment factor from Table 150.1-C B = Dwelling adjustment factor from Table 150.1-C	Climate Zone	A – CFA	B – Dwelling Units
	13	0.894	1.51
	14	0.741	1.26
	16	0.590	1.22

Conditioned Floor Area (CFA): _____ sq. ft.

Number of Dwelling Units (NDwell): _____

Adjustment Factor from Table 150.1-C (A): 0.894

Adjustment Factor from Table 150.1-C (B): 1.51

**PV Minimum Required
Annual Electrical Output**

0 kWdc

PHOTOVOLTAIC REQUIREMENTS - RESIDENTIAL EXCEPTIONS



EXCEPTION 1 to Section 150.1(c)14: No PV is required if the effective annual solar access is restricted to less than 80 contiguous square feet by shading from existing permanent natural or manmade barriers external to the dwelling, including but not limited to trees, hills, and adjacent structures. The effective annual solar access shall be 70 percent or greater of the output of an unshaded PV array on an annual basis.

EXCEPTION 3 to Section 150.1(c)14: In all climate zones, for dwelling units with two habitable stories, the PV size shall be the smaller of a size that can be accommodated by the effective annual solar access or a PV system size required by the Equation 150.1-C, but no less than 1.0 Watt DC per square foot of conditioned floor area.

EXCEPTION 4 to Section 150.1(c)14: In all climate zones, for low-rise residential dwellings with three habitable stories and single family dwellings with three or more habitable stories, the PV size shall be the smaller of a size that can be accommodated by the effective annual solar access or a PV system size required by the Equation 150.1-C, but no less than 0.8 Watt DC per square foot of conditioned floor area.

EXCEPTION 5 to Section 150.1(c)14: For a dwelling unit plan that is approved by the planning department prior to January 1, 2020 with available solar ready zone between 80 and 200 square feet, the PV size is limited to the lesser of the size that can be accommodated by the effective annual solar access or a size that is required by the Equation 150.1-C.

EXCEPTION 6 to Section 150.1(c)14: PV sizes from Equation 150.1-C may be reduced by 25 percent if installed in conjunction with a battery storage system. The battery storage system shall meet the qualification requirements specified in Joint Appendix JA12 and have a minimum capacity of 7.5 kWh.