

CALIFORNIA ENERGY COMMISSION

SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS

CERTIFICATE OF INSTALLATION

Note: This table completed by HERS Registry.

Project Name:	Enforcement Agency:
Dwelling Address:	Permit Number:
City and Zip Code:	Permit Application Date:

A. General Information

01	Project Location (City)	02	Building Type	20	
03	Climate Zone	04	Method of Compliance:	×10.	2
05	Qualifying Exceptions	06	Community Solar	14. DOI:	0

B. Design Photovoltaic Systems Information

01	02	03	04	05	06	07	08	09	10	11	12	13
PV Array ID or Name	Adjusted Minimum PV Size (kW)	Adjusted Value from Exception	Module Type	CFI (Yes/No)	Azimuth (deg)	Tilt Input (Deg/Pitch)	Angle/ Tilt	Annual Solar Access (%)	Inverter Efficiency (%)	Shading Requirement Compliance Path	Array Type	Module Level Power Electronics
							26	p	101			
14	Total DC Syste	em Size (kW)					1 1					

C. Installed Photovoltaic Systems Information

01	02	03	04	05	06	07	08	09	10
PV Array ID or Name	DC System Size (kW)	Module Type	Azimuth (deg)	Tilt Input (Deg/Pitch)	Angle/Tilt	Annual Solar Access (%)	Inverter Efficiency (%)	Array Type	Module Level Power Electronics
			. 0		114	20	4		
			414		1	110			
11	Total DC System Size (kW)	1	200	11		0,			

If the installer certifies that the installed PV system matches or exceeds the design PV system, the building complies with the PV system requirement, otherwise it does not comply.

D. Solar Access Verification

01

The installer shall provide documentation that demonstrates the shading condition of the actual installation of the PV module is consistent with the annual solar access % in Table B. The verification must be done by measurements from an approved solar assessment tool or other CEC approved alternative methods. The satellite, drone or other digital image of the obstructions that cast shadows on the PV array must be created and dated after the installation of the photovoltaic system. If the image is dated before the installation, then additional on-site pictures must be attached to clearly show that the installed system matches the system modeled in the solar assessment report.

The responsible person's signature on this compliance document affirms that all applicable requirements in this table have been met.

PHOTOVOLTAIC SYSTEMS



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E. System Monitoring Requirements

All inst	alled PV system must have a working web based portal and a mobile device application provide access to the following information
01	Nominal kW rating of the PV system
02	Number of PV modules and nominal watt rating of each module
03	Hourly (or 15 min), daily, monthly and annual kWh production in numeric and graphic format
04	Running total of daily kWh production
05	Daily kW peak power production
06	Current kW production of the entire PV system

The responsible person's signature on this compliance document affirms that all applicable requirements in this table have been met.

F. Qualifying Exception Requirement

Limited Solar Access

The installer shall provide documentation of the roof area limitations that justify the exception. Documentation may include roof plans, aerial photos, satellite images, 3D model, or other documentation that clearly shows the available roof areas that meets the solar access requirements.

Declared emergency area

If a building is damaged or destroyed in a declared emergency area prior to 1/1/2020 (AB-178), it must comply with PV requirement applicable on originally constructed permit date. Eligibility to this exception, such as income or insurance requirements, shall be confirmed by the enforcement agency.

Snow Load

The installer shall provide roof design, PV system design, and/or ASCE Standard 7-16, Chapter 7, Snow Loads calculation to the enforcement authority. The enforcement authority must determine that it is not possible for the PV system, including panels, modules, components, supports, and attachments to the roof, to meet ASCE Standard 7-16, Chapter 7, Snow Loads.

10-109(k) PV Requirement Determination

Only buildings within the jurisdiction of Trinity Public Utility District or the City of Needles qualify for this exception.

The responsible person's signature on this compliance document affirms that all applicable requirements in this table have been met.

G. SMUD Solar Share Program

01	Required kW			
02	Standard Design kW (CFI1 orientation and 98% solar access)			
03	Attach a copy of SMUD Attestation of Premise Registration in Neighborhood SolarShares (Attestation).			

The responsible person's signature on this compliance document affirms that all applicable requirements in this table have been met.

H. Compliance Statement



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SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

1. I certify that this Certificate of Installation documentation is accurate and complete.

Documentation Author Name:	Documentation Author Signature:
Documentation Author Company Name:	Date Signed:
Address:	CEA/HERS Certification Identification (If applicable):
City/State/Zip:	Phone:

RESPONSIBLE PERSON'S DECLARATION STATEMENT

- 2. I certify the following under penalty of perjury, under the laws of the State of California:
 - 1. The information provided on this Certificate of Installation is true and correct.
 - 2. I am either: a) a responsible person eligible under Division 3 of the Business and Professions Code in the applicable classification to accept responsibility for the system design, construction, or installation of features, materials, components, or manufactured devices for the scope of work identified on this Certificate of Installation, and attest to the declarations in this statement, or b) I am an authorized representative of the responsible person and attest to the declarations in this statement on the responsible person's behalf.
 - 3. The constructed or installed features, materials, components or manufactured devices (the installation) identified on this Certificate of Installation conforms to all applicable codes and regulations and the installation conforms to the requirements given on the Certificate of Compliance, plans, and specifications approved by the enforcement agency.
 - 4. I understand that a registered copy of this Certificate of Installation shall be posted or made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections, and I will take the necessary steps to ensure this requirement is accomplished.
 - 5. I understand that a registered copy of this Certificate of Installation is required to be included with the documentation the builder provides to the building owner at occupancy, and I will take the necessary steps to ensure this requirement is accomplished.

Responsible Builder/Installer Name:	Responsible Builder/Installer Signature:		
Company Name: (Installing Subcontractor or General Contractor or Builder/Owner)	Position With Company (Title):		
Address:	CSLB License:		
City/State/Zip:	Phone:	Date Signed:	

For assistance or questions regarding the Energy Standards, contact the Energy Hotline at: 1-800-772-3300

CERTIFICATE OF INSTALLATION – USER INSTRUCTIONS	CF2R-PVB-01-E
Photovoltaic Systems	(Page 1 of 2)

CF2R-PVB-01-E User Instructions

A. General Information

- 1. For information only and requires no user input.
- 2. For information only and requires no user input.
- 3. User choose from list of qualifying exceptions to the PV requirements. If no exception applicable, choose N/A
- 4. For information only and requires no user input.
- 5. For information only and requires no user input.
- 6. For information only and requires no user input.

B. Design Photovoltaic Systems Information

This table reports the PV system features that were specified on the registered CF1R compliance document for this project. For information only and requires no user input.

C. Installed Photovoltaic Systems Information

- 1. PV Array ID or Name Reference information from CF1R.
- 2. DC System Size Enter the kWdc of the array. Must be equal or greater the design system size for this array.
- 3. Module Type If the array meets the California Flexible Installation criteria, then enter the Module Type. Different module types are Standard and Premium.
- 4. Azimuth If the array meets the California Flexible Installation criteria, then enter the azimuth of the array in degrees from North.
- 5. Tilt Input Different Tilt input are Degree and Pitch.
- 6. Angle/Tilt Enter the value of the angle or tilt.
- 7. Annual Solar access Enter the percent of solar access
- 8. Inverter Efficiency Enter the inverter efficiency in percent. Must be equal or greater the design inverter efficiency for this array.
- 9. Array Type Choose from: fixed (open rack), tracking (one axis), tracking (two axis)
- 10. Module Level Power Electronics Choose from: microinverters or DC power optimizers

D. Solar Access Verification

Installer must ensure all the requirements on this table are met.

E. System Monitoring Requirements

Installer must ensure all the requirements on this table are met.

F. Qualifying Exception Verification

Installer must ensure all the requirements on this table are met.

G. SMUD Solar Share Program

Installer must ensure all the requirements on this table are met.

CERTIFICATE OF INSTALLATION – USER INSTRUCTIONS	CF2R-PVB-01-E
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H. Compliance Statement

Installer verifies whether dwelling complies with the Photovoltaic Systems requirements.

Documentation Declaration Statements

- 1. The person who prepared the CF2R will sign and complete the fields for their name, company (if applicable), address, phone number, certification information (if applicable), date and signature.
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