DOCKETED					
Docket Number:	18-BSTD-02				
Project Title:	2019 ENERGY CODE COMPLIANCE MANUALS				
TN #:	232778-21				
Document Title:	2019-CF2R-PVB-01-E - PV Systemspdf				
Description:	N/A				
Filer:	Corrine Fishman				
Organization:	California Energy Commission				
Submitter Role:	Public Agency				
Submission Date:	4/20/2020 8:45:49 AM				
Docketed Date:	4/20/2020				

STATE OF CALIFORNIA **PHOTOVOLTAIC SYSTEMS** CEC-CF2R-PVB-01-E (Revised 01/19)

CALIFORNIA ENERGY COMMISSION

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CERTIFICATE OF INSTALLATION

Photovoltaic Systems Project Name:

Date Prepared:

A. Ge	A. General Information					
01	Project Location (City)	02 Building Type				
03	Climate Zone	04 Method of Compliance:				
05	Qualifying Exceptions					

B. Design Photovoltaic Systems Information									
01	02	03	04	05	06	07	08	09	10
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	Inverter Efficiency (%)	Shading Requirement Compliance Path
11	Total DC S Size (k	System W)							

C. Installed Phot	tovoltaic Sy	ystems Infor	mation		2		2
01	02	03	04	05	06	-0.	07
PV Array ID or Name	DC System Size (kW)	Module Type	Azimuth (deg)	Tilt Input (Deg/Pitch)	Angle/Tilt	500	Inverter Efficiency (%)
	Total DC	System		<u>U</u> .		0.	
08	Size (k	w)	11	i'r		04	

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. Shading Requirement

Minimal Shading Criterion

No obstruction is closer than a distance D of twice the height H as specified JA11.3.1

PV Array Geometries Performance Input

The shading condition of the PV array must be properly input in the performance calculation and attach a copy of the design to the CF1R

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

E. 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 shading requirement in Table D. The verification must be done with by measurements from an approved solar assessment tool or other CEC approved alternative methods			
The responsible person's signature on this compliance document affirms that all applicable requirements in this table have been met.				

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Date Prepared:

F. 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 re	sponsible person's signature on this compliance document affirms that all applicable requirements in this table have			
been r	net.			

	Ialifying Exception Verification
	The installer shall provide documentation of the roof area limitations that justify the exception. Documentation may
01	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.
The re	esponsible person's signature on this compliance document affirms that all applicable requirements in this table have
been	met.
	<u> </u>
H. Co	mpliance Statement
	information and uniterider

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

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CERTIFICATE OF INSTALLATION

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Photovoltaic Systems

Project Name:

Date Prepared:

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT					
1. I certify that this Certificate of Compliance documentation is accura	ate and complete.				
Documentation Author Name:	Documentation Author Signature:				
Company:	Signature Date:				
Address:	CEA/ HERS Certification Identification (if applicable):				
City/State/Zip:	Phone:				
RESPONSIBLE PERSON'S DECLARATION STATEMENT					
 I certify the following under penalty of perjury, under the laws of the St The information provided on this Certificate of Compliance is true I am eligible under Division 3 of the Business and Professions Code identified on this Certificate of Compliance (responsible designer). That the energy features and performance specifications, material system design identified on this Certificate of Compliance conform Code of Regulations. The building design features or system design features identified on provided on other applicable compliance documents, worksheets, agency for approval with this building permit application. I will ensure that a registered copy of this Certificate of Compliance building, and made available to the enforcement agency for all app Certificate of Compliance to the enforcement agency for all app certificate of Compliance to the enforcement agency for all app 	eate of California: and correct. e to accept responsibility for the building design or system design s, components, and manufactured devices for the building design or to the requirements of Title 24, Part 1 and Part 6 of the California on this Certificate of Compliance are consistent with the information calculations, plans and specifications submitted to the enforcement e shall be made available with the building permit(s) issued for the plicable inspections. I understand that a registered copy of this				
Certificate of Compliance is required to be included with the docur Responsible Designer Name:	mentation the builder provides to the building owner at occupancy.				
· · · ·					
Company:	Date Signed:				
Address:	License:				
City/State/Zip:	Phone:				
or infort with HERS					

CALIFORNIA ENERGY COMMISSION

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Date Prepared:

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CF2R-PVB-01-E User Instructions

A. General Information

01 For information only and requires no user input.

CERTIFICATE OF INSTALLATION—USER INSTRUCTIONS

02 For information only and requires no user input.

03 User choose from list of qualifying exceptions to the PV requirements. If no exception applicable, choose N/A

04 For information only and requires no user input.

05 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

01 PV Array ID or Name - Reference information from CF1R.

- 02 DC System Size Enter the kWdc of the array. Must be equal or greater the design system size for this array.
- 03 Module Type If the array meets the California Flexible Installation criteria, then enter the Module Type. Different module types are Standard and Premium.
- 04 Azimuth If the array meets the California Flexible Installation criteria, then enter the azimuth of the array in degrees from North.
- 05 Tilt Input If the array meets the California Flexible Installation criteria, then enter the Tilt input. Different Tilt input are Degree and Pitch.
- 06 Tilt Input If the array meets the California Flexible Installation criteria, then enter the value of the angle or tilt.
- 07 Inverter Efficiency Enter the inverter efficiency in percent. Must be equal or greater the design inverter efficient for this array.

D. Shading Requirement

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

E. Solar Access Verification

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

F. System Monitoring Requirements

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

G. Qualifying Exception Verification

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