City of Rocklin Building Division

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RESIDENTIAL PV SYSTEM SUBMITTAL CHECKLIST

PROPERTY ADDRESS_____

FOR ALL SYSTEMS PROVIDE TWO SETS OF:

- ❑ Electrical schematic diagram of system (module wiring (series/parallel), disconnects, grounding/bonding, wire, conduit type, size, and number of conductors in each section of conduit).Indicate locations of conduits, wire runs and whether they are exposed to the weather. When batteries are to be installed include them in the diagram and there locations/rooms and venting.
- ❑ Site diagram (show arrangement of panels on the roof or ground, location of combiner box, inverter, utility disconnect, main service, show approx. distance from panel to all components, dimension all setbacks to building lines, structures and property lines).
- ❑ Equipment cut sheets including inverters, modules, etc.
- ❑ Label equipment for electrical hazard per CEC sec. 690.17
- ❑ System KW _____
- ❑ Complete page two of the System Summary sheet.

FOR ROOF MOUNTED SYSTEMS PROVIDE TWO SETS OF:

- ❑ Engineered or listed system for mounting and attachment of system. Include roofing type: composition shingle, tile, shake, etc.

FOR GROUND MOUNT SYSTEMS PROVIDE TWO SETS OF:

- ❑ Engineering (When the total height from ground to top of the array exceeds 6 feet.) for mounting, attachments, and foundation to meet the minimum wind loads. Provide details of attachments, anchors, brackets, photovoltaic panels, and all hardware.

(See Reverse Side for PV System Summary Worksheet)

Residential PV System Summary Worksheet

TYPE OF SYSTEM:

- ❑ Roof Mount
- ❑ Ground Mount
- ❑ Batteries
- ❑ Off-Grid
- ❑ Grid Tie
- ❑ Generator

INVERTER(S) *(must be on State CEC list of approved inverters):*

Number of Inverter(s): _____
Manufacture/Model Number _____
DC Input Voltage Range_____
Listed for Utility Interconnection: ❑Yes ❑No

Maximum continuous output power at 40 degrees Celsius

MODULES *(must be on state CEC list of approved modules):*

Total # of modules per inverter: _____
Manufacture/Model Number_____

FROM THE MODULE LISTING:

*Maximum system voltage _____
Open-circuit voltage (VOC) _____
Short-circuit current (ICS) _____
Voltage at Pmax _____
Maximum series fuse rating _____
Current a Pmax_____

***Calculated system voltage = (VOC x** #of modules in series x 1.13) CEC 690.7*
Calculated system voltage must be less than or equal to the module Maximum System Voltage.

ARRAY INFORMATION

Total number of modules_____
Number of modules in each series _____
Number of parallel source circuits _____

OPERATING VOLTAGE:_____volts
*(Voltage at Pmax **x** number of modules in series)*
OPERATING CURRENT:_____ amps
(Current at Pmax x number of strings in parallel)

PV SOURCE CIRCUIT AMPACITY *(ICS x number of parallel circuits x 1.25) CEC 690.8A-1, 690.8B-1 and NOTE 2.):*

Minimum PV source circuit ampacity for conductor sizing _____

Explanation: To determine wire sizing and over current protection you must determine the minimum source circuit conductor ampacity which is 125% of the maximum PV source circuit current ampacity (CEC 690.8.A-1). The maximum PV source circuit current ampacity is 125% of the source circuit ampacity or ICS (CEC 690.8B-1).

NOTE 1: All wiring rated at 90 degrees and equipment on array side of the inverter must be DC rated.

NOTE 2: Further ampacity adjustments are necessary when more than 3 current carrying conductors are installed in the conduit. See CEC Table 310.15(B) (2) (a)

NOTE 3: PER CEC 690.63 Exception: For dwelling unit, the sum of the ampere ratings of the over current devices shall not exceed 120 percent of the bus bar or conductor.