



CITY *of* CLOVIS

BUILDING DEPARTMENT

1033 FIFTH STREET • CLOVIS, CA 93612

Residential Roof Mounted Photovoltaic Submittal Requirements

1) Permit application. 2019 CRC R106.1

- An accurate description of work.
- Project address.
- Owner information.
- Contractor information.
- Valuation.
- Signed by Applicant or Applicant's Authorized Agent.

2) Construction Documents - 2019 CRC R106.1

a) Plan Set Cover Sheet. 2019 CRC R106.2

- Project address.
- Vicinity Map.
- Provide the owner's name and phone number.
- Name and address of designer.
- Contractor information.
- Scope of work to be performed.
- List of all equipment or system components to be installed: (PV Modules, Inverters, Main panel Upgrades, Sub Panels, Combiner Panels, Load Centers, Energy Storage Devices, Gateways, Rapid Shutdown Devices, Optimizers, Existing PV Systems, Etc.)
- List of all current and applicable California codes.
- Provide an accurate Sheet index.
- Provide a Legend for all symbols, abbreviations, etc.

b) Site Plan – 2019 CRC R106.1

- Show the lot with property lines and the footprint of existing structures.
- House location on the parcel.
- Show and label the location of all equipment and system components. (PV Modules, Inverters, Main panel Upgrades, Sub Panels, Combiner Panels, Load Centers, Energy Storage Devices, Gateways, Rapid Shutdown Devices, Optimizers, Existing PV Systems, Etc.)
- The streets are shown and labeled.
- Include a North arrow (Compass orientation).

c) Roof (These requirements apply to roof assemblies with a slope greater than 2:12)

- **Show Fire Setbacks** (Setback between horizontal ridges and PV arrays.) **2019 CRC R324.6 and R324.6.1**
 - (1) Setback dimensions.
 - (2) Provide the total percentage of the plan view of the rooftop that the photovoltaic array(s) cover.
 - (3) Is the residence equipped with fire sprinklers?

- **Show Access Pathways** (Pathway from roof lowest edge to Fire Setbacks on the same plane, adjacent plane, or straddling same and adjacent planes.) **2019 CRC R324.6, and R324.6.2**
 - (1) 2 Access Pathways will be required with a minimum width of 36".
One of the Access pathways must be from the street side of the residence. (In front of the fence.)
 - (2) Shall be located in areas capable of supporting fire fighters accessing the roof.
 - (3) Shall be located in areas with minimal obstructions.

- **Emergency Escape and Rescue Openings. 2019 CRC R324.6.2.2**
 - (1) PV modules shall not be installed below such openings.
 - (2) A path no less than 36" shall be provided to such openings.

d) Attachment 2019 - CRC R106.1

- Show points of attachment within the array on rafters/trusses. Ensure the maximum span and cantilever indicated in the data sheet are met.
- Show expanded view of attachment and the build-up of roofing, attachment mechanism, flashing, and sealing.

e) Electrical - 2019 CEC

- Show a complete electrical one-line or three-line diagram.
- Provide equipment schedule with respective ratings/electrical characteristics.
- Show rating of all overcurrent devices. Provide electrical calculations supporting the proposed loads on the overcurrent protection devices. 120% rule, CEC 705.12 (B) (2) (3) (b): Point of connection.
- Show all conduit sizes and types. Provide electrical calculations supporting the conduit sizes and types.
- Provide conductor schedule, including sizes, types, and quantities.
- Is the Main Service Panel existing, or will the existing main service be upgraded?
- Provide electrical calculations supporting the proposed derating of the Main Service Breaker.
- Provide information describing any existing interconnected power sources (Photovoltaic systems, generators, turbines, etc.), and indicate if they are either Non-rapid shutdown devices or Rapid shutdown device compliant. Provide calculations and one-line drawings
- Energy storage systems.

f) Labeling - 2019 CEC

- Show all applicable labeling in color.
- Directory placard.
 - (1) Show the location of the array(s), equipment, and point of connection.
 - (2) Show dotted line around exiting arrays that do not conform to the Rapid Shut Down requirements of 2019 CEC.

g) Data Sheets - 2019 CRC R106.1

- Inverters/Micro-inverters.
- PV modules.
- RSD Devices/Optimizers.
- Racking (Please provide the basic datasheet, not the complete installation guide.)
- Attachment system.
- Array bonding.
- Combiner panels.
- Main Service Panels/Sub Panels.
- Monitoring systems.
- Batteries/Energy storage.
- Transfer switches.
- Specialty Electrical Equipment (Green Meter Adapters, EV chargers, etc.)
- Generators, turbines, etc.

h) Addendums, revisions, and resubmittal documents.

- A full description of the changes on the plans for all revisions and addendums submittals is required.
- A cloud or delta will be at every change on the plans set, and any corrections addressed on all addendums, revisions, and resubmittal plans.