



Residential Solar Photovoltaic (PV) System Plan Submittal Checklist

Having all the items listed on this checklist does **not** guarantee a permit will be issued and any additional plans, information, and/or requirements may be requested or required.

- 1. Site plan:** A detailed site plan showing the location of the home, electrical meter panel, any backfed sub-panelboards, and all PV system components on the property. Plumbing vent terminations are not allowed to remain under solar installations. Vent terminations must be relocated (and possibly resized) or an air admittance valve may be utilized in accordance with the International Plumbing Code (IPC) and/or International Residential Code (IRC).
- 2. Mounting system:** Provide detailed information on the module mounting system and also the weight of all components on the roof. **Please provide a Structural Engineers letter to evaluate the existing structure of the home for the addition of solar panel.**
- 3. One-line diagram:** A detailed one-line diagram is required and must show: the type of PV system being installed (a single inverter system with one or more strings of modules connected in series, a micro-inverter system, or an AC module system), the exact number and layout of modules and how they are connected together (in series or in Parallel), all wire types, all wire sizes, conduit types and sizes, detailed info on the grounding wiring and connections, the locations of all circuits and system components on or in the house, and the ratings of all fuses or breakers.
- 4. Note which home electrical panel the PV system will backfeed and give the location and rating of that panel. Please provide pictures of the service panel with a picture of its interior label; also provide photos of labels of any sub-panel that will be backfed.**
- 5. Module Spec Sheets:** Provide the PV module (solar panels) spec sheets showing the modules **STC** rated watts (Pmp), volts (Vmp), amps (Imp), open circuit voltage (Voc), and short circuit current (Isc). Modules must be listed **UL 1703**.
- 6. Inverter spec sheets:** Provide the inverter manufacture spec sheets showing the amount of watts and volts the inverter can safely handle, and also noting what the inverter's max rated AC output amps and voltage is. Utility tied inverters must be listed as "utility interactive" meeting **UL 1741**, and have ground fault protection.
- 7. Total array power:** (this is not required for systems with micro inverters) Provide the total amount of watts, amps, volts, open circuit voltage (Voc at the coldest possible outside temperature-see NEC 690.7), and short circuit current that the array can produce.
- 8. System components:** Provide information on the different types of components that will be used in the system and how they are to be installed. Also show that all equipment is listed and rated for the type of voltage (AC or DC), amount of voltage, and the amount of current that it could be subjected to.
- 9. Fire Code:** Provide compliance with the 3' requirements for access and pathways per the International Fire Code (IFC) 605.11.
- 10.** Please review the proposal with Rocky Mountain Power for the solar incentive program (www.rockymountainpower.net/solar) or 1-866-344-9802. Incentives are based upon complying with their requirements for pre-installation inspection and post-installation inspection.
- 11.** Provide a warning sign at the main electrical disconnect to the building that solar panels are providing supplement voltage per NEC requirements.