



CITY OF
SARATOGA SPRINGS

Electrical Permit Application for Roof-Mounted Solar Photovoltaic

Job Address

Owner

Owner Phone Number

Contractor/Applicant Name

Applicant Phone Number

Applicant Address

Contractor License Number

Number of Roof-Mounted Solar PV Modules _____

Watts per Module _____ Number of Interactive Inverters _____

Power Ratings (each) _____ Total No. of Rating _____

KW

Residential Solar Photovoltaic (PV) System Plan Submittal Checklist

This checklist is only a basic list of items needed **to begin** a solar PV system plan review and is **not** all inclusive. 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 by City of Saratoga Springs at any time. Must be designed to the **2014 National Electrical Code (NEC) and the 2015 International Codes (IBC, IRC, IFBC)**. ****Bring in 2 complete sets of Plans & Specifications and a disk containing copies of all submittal documents (disk must be updated with the approved submittal documents before the permit is issued).****

- 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 is required. 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. The support manufacture specs must also specify the required support spacing based on the local wind and snow loads. Note if the home roof rafters are engineered trusses or provide information on the type and size of the roof rafters if they are other than engineered trusses. Also note the type of the roof covering (shingles, metal, or tile) and how many layers of the covering there are. If the racking system has integrated grounding/bonding, please also provide spec sheets showing such. **Please provide a Structural Engineers letter to evaluate the existing structure of the home for the addition of solar panels.**
- 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. Elect. panel to be backfed:** **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. Please 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 requirements for access and pathways per the International Fire Code (IFC) 605.11 Solar photovoltaic power systems. If the exception to the Fire Code is going to be used please provide signed release letter that is attached to this application and include it with your permit application. Also send a copy of the letter and site plan layout to Fire Chief Jess Campbell JCampbell@saratogaspringscity.com
10. The applicant will verify with the City of Saratoga Springs Planning Department that the proposed complies with all zoning, Planned Development Districts and required HOA approvals or deed restrictions.
11. 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.
12. Provide a warning sign at the main electrical disconnect to the building that solar panels are providing supplemental voltage per NEC requirements.

I _____ have read the above information and acknowledge that all the required documents have been provided.

Signature _____ Date _____



Client Name: _____

Address: _____

This document is to notify you and requires your acknowledgment. Saratoga Springs will review the site design for your Photovoltaic (PV) with the following stipulation: Saratoga Springs Fire & Rescue will not use vertical ventilation techniques and they will not be employed should the need arise on your home for any reason due to the lightweight constructions techniques that were utilized in the building of your home; we will not deploy Firefighters to your roof for vertical ventilation practices and procedures. Other tactics will be utilized should the need arise at your location.

You will also need full disclosure to any future changes in ownership of this property of this document and rendering.

Per IFC code 605.11.3 exception 2. "Panels/ modules shall be permitted to be located up to the roof ridge where an alternative ventilation method approved by the fire chief has been provided or where the Fire Chief has determined vertical ventilation techniques will not be employed."

(Quotations used if this is in fact the full statement from 605.11.3)

If you have any questions or concerns please feel free to contact us.

(Vendor) Signature: _____

Date: _____

Client Signature: _____

Date: _____