

## Solar Photovoltaic Systems Checklist

Solar Photovoltaic applications are reviewed by the Town of Winter Park/Fraser/Granby.

The following checklist shall be submitted with your plans.

**Each item on the list shall be marked to verify it is part of the submittal. Incomplete information may result in plan rejection or delay in the review & issuance of your project.**

### Plan Submittal Requirements

Please provide the following information:

1. A completed application form. Include the proposed PV System capacity in watts, and whether the system is a stand-alone, grid tied, or hybrid system.
2. A plan review fee deposit (the balance of fees are due at the time of permit issuance).
3. Two sets of plans.
4. Shall meet all applicable conditions of Request for Electrical Service

### Site Plan - Equipment Outside a Building

- \_ Show the location of all disconnects and isolation device.
- \_ Type of isolation device- Request for Electrical Service: 9.4.a.vi- Isolation Device- will be in accordance with the requirements set forth by the Town of Winter Park/Fraser/Granby Building Department.
- \_ Show the location of all modules.
- \_ Show the location of all batteries (if applicable).
- \_ Show the location of inverters.
- \_ Show the location and connection of all grounding electrode conductors.
- \_ Show the clearances around all equipment.
- \_ Show the dimensions between equipment and structures.
- \_ Show the dimensions between equipment and property lines. Note: See the Pole or Ground Mounted Panels section for additional site plan requirements.

### Floor Plan – Equipment within the structure

- \_ Show the location of all disconnects and isolation device.
- \_ Type of isolation device- Request for Electrical Service: 9.4.a.vi- Isolation Device- will be in accordance with the requirements set forth by the Town of Winter Park Building Department.
- \_ Show the location of all batteries (if applicable).
- \_ Show the location of inverters.

- \_ Show the location and connection of all grounding electrode conductors.
- \_ Show location of all equipment within structures.
- \_ Label the use of the room in which the equipment is placed.
- \_ Show clearances of the equipment.

### **Wiring Requirements**

#### **Obtain permits and inspections from the State of Colorado**

[www.colorado.gov/pacific/dora/Electrical](http://www.colorado.gov/pacific/dora/Electrical)

Provide a one-line diagram that includes the following information:

- \_ Label whether the system is stand-alone, grid-tied, or hybrid.
- \_ Conductor sizes.
- \_ Conductor insulation types (i.e., THHN, THWN, direct burial cable, etc.).
- \_ Conductor materials (i.e., copper/aluminum).
- \_ Conduit sizes.
- \_ Conduit materials (i.e., non-metallic, EMT, etc.).
- \_ Over current device ratings.
- \_ Existing and new panel amperage ratings (buss ratings).
- \_ Series and parallel configuration of the module connections.

### **Equipment Requirements**

Provide the following general information.

- \_ Module short circuit current ratings.
- \_ Module open circuit voltage ratings.
- \_ Module series fuse ratings.
- \_ Inverter output circuit current rating.
- \_ Inverter UL listings.
- \_ All associated documentation (i.e., batteries, inverters, disconnects, modules, charge controllers, over-current devices etc.).
- \_ Method of grounding for modules and array. Note: Voltage correction factor is based on 125% (NEC Table 690.7).

## **Panels**

### **Roof Mounted Panels**

Provide the Following Information:

- \_ A Colorado licensed design professional's evaluation regarding the dead-load capability of the existing roof structure and its ability to support the added weight of the PV panels.
- \_ For flat roof installations provide method of repair for roof penetrations.

### **Pole or Ground Mounted Panels**

Provide the Following Information:

- \_ Site Plan Review Waiver approval
- \_ Site Plan to include the following:
  - \_ Location of panel(s) on property.
  - \_ Dimensions from panel(s) to property lines.
  - \_ Dimensions from panel(s) to other structures on the property and property easements.
- \_ Colorado licensed design professional footing design.

### **Rough Solar PV Inspections**

Rough solar PV inspections are required. This inspection should be scheduled after the installation of the solar PV racking system, grounding, and no more than 50% of the PV modules. Roof mounted junction boxes or DC combiner boxes shall also be installed and wires terminated. In addition to the rough inspection, at the completion of the work, the Building Department will conduct a final inspection. If you have any questions, feel free to contact the Town of Winter Park/Fraser/Granby Building Division at 970-726-8081.