

Solar Photovoltaic Installations

Issue Date: October 4, 2016

Solar Photovoltaic Electrical Permit, Plan Review and Equipment Specification Requirements

Electrical Permit Requirements:

- A signed permit application from a qualified licensed electrician must be submitted prior to a plan review;
- For all solar photovoltaic installations electrical plans and equipment specifications must be submitted and accepted-prior to an electrical permit being issued; and
- No electrical work can commence until an electrical permit has been issued.

Solar Photovoltaic Plan Requirements:

Plans shall be submitted by the licensed electrician and shall include a site diagram and a single line diagram.

Note: Solar photovoltaic system designs and equipment utilized can vary and as such the list below is not to be considered all inclusive. Please include all equipment on the site and single line diagrams as determined by the solar photovoltaic system design.

Site diagram showing physical locations:

- Existing electrical installation including sizes for service, subpanels and metering;
- Arrangements of module strings including roof or ground mount;
- Utility disconnect;
- Rapid shutdown initiation;
- All solar photovoltaic system disconnects;
- Inverters;
- Battery Banks; and
- Charge controllers.



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Single line diagram:

- Number of modules for each string and the total number of strings;
- Combiners;
- Junction Boxes;
- Charge controllers;
- Battery banks;
- Inverters;
- All solar photovoltaic system disconnects;
- Utility interactive point of connection;
- Panelboard bus rating;
- All overcurrent protection sizes and types;
- All conductor/cable sizes and types including wiring method within an array;
- Raceway sizes and types including number of conductors in each raceway;
- AC and DC system grounding/bonding methods;
- All equipment & overcurrent labels;
- Main PV system marking indicating the rated operating voltage and current, maximum PV source circuit voltage and the rated short circuit current; and
- Rodent protection method if roof top installation.

Solar Photovoltaic Equipment Specification Requirements:

Specification sheets are to indicate the specific model numbers being installed.

Note: Solar photovoltaic system designs and equipment utilized can vary and as such the list below is not to be considered all inclusive. Please include all equipment specifications sheets as determined by the solar photovoltaic system design.

Equipment specification sheets shall be provided for:

- Modules;
- Optimizers;
- Rapid Shutdown;



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- Combiners;
- Inverters;
- Charge controllers;
- Batteries; and
- Utility Disconnect.

