



Solar Photovoltaic Systems

Plan Submittal Requirements

General Requirements

- Provide permit application completely filled out. The valuation is to be the complete cost of work before any rebates.
- **Provide Xcel Energy approval number.**
- Provide a site plan that locates all equipment on the drawing.
- State the name of the product(s) being used and the product information.
- Specify if the system is a stand alone or interactive system.
- Roof mounted systems must be on permanent standoffs and provide the following:
 - Type of roof structure, i.e. roof trusses or rafters
 - Method of locating roof framing members
 - Provide mounting details. All permanent standoffs shall be mounted to structural members and properly flashed to accommodate re-roofing.

Fees

Residential fee: \$40 plus city sales tax (use tax)

Commercial fee: based on the project valuation and table 3-A, not to exceed \$1000 as per state law.

Note: City sales tax (use tax) is not exempt by state law.

Wiring Requirements

- Provide a three-line diagram that includes the following information:
 - Conductor size
 - Conductor insulation types
 - Conductor material, i.e. copper, aluminum
 - Main over-current device ratings
 - Existing and new panel busbar amperage ratings
 - Series and parallel configuration of the module connections
- Provide a schematic drawing that includes the following:
 - The location of all modules, inverters, disconnects, and service equipment
 - The location of all batteries
 - The location and connection of all grounding electrode conductors
 - The clearances around all equipment noted above
 - Conduit or cable type & size, i.e. nonmetallic, EMT, direct burial cable ect.
- Provide all applicable warning and marking labels for AC and DC disconnects as required

Equipment Requirements

- Provide the following equipment information
 - Module short circuit current ratings
 - Module open circuit voltage ratings
 - Module series fuse ratings
 - Inverter maximum output current rating
 - Inverter maximum over-current protection- output/input per manufacturer
 - Inverter U.L. File number, listings and remaining specifications
- Provide all associated documentation/cut sheets, and installation instructions on equipment, i.e., inverters, disconnects, modules, charge controllers, over current devices, ect.