

Standardized Solar PV Permitting Checklist

DATE SUBMITTED _____

JOB SITE ADDRESS _____

NAME OF BUILDING OWNER _____

JOB VALUATION _____

INSTALLATION CONTRACTOR:

Name _____

Address _____

City _____

State _____ Zip _____

State License No. _____ Phone _____

Required Information for Permit:

1. Site plan showing the location of major components on the property and a framing cross section that identifies type of support (rafter or truss), spacing, span dimension, and approximate roof slope. The drawings need not be exactly to scale, but it should represent relative location of components. PV arrays on dwelling with a 3' perimeter space at ridge and sides may not need separate fire service review.
2. Specification sheets and installation manuals for all manufactured components including, but not limited to, PV modules, inverter(s), combiner box, disconnect, and mounting system.
3. **If the City manages the electrical permit process** – Electrical diagram showing PV array configuration, wiring system, overcurrent protection, inverter, disconnects, required signs, and AC connection to building (see accompanying standard electrical diagram).

Step 1: Structural Review of PV Installation Mounting System

1. Is the roof supporting the installation a pitched roof in good condition, without visible sag or deflection, no cracking or splintering of support, or other potential structural defects?
Yes _____ No _____
2. Is the roof a rafter system? Yes _____ No _____
3. Is the equipment to be flush-mounted to the roof such that the collector surface is parallel to the roof? Yes _____ No _____
4. Is the roofing type lightweight (composition, lightweight masonry, metal)?
Yes _____ No _____
5. Does the roof have a single layer of roof covering? Yes _____ No _____
If "No" to any of the questions 1 – 4 above, additional documentation may be required. Documentation may need to demonstrate the structural integrity of the roof and all necessary modifications need to maintain integrity. A statement stamped by a Wisconsin licensed/certified structural engineer certifying integrity is required.
6. Identify the method and types of weatherproofing for roof penetrations (e.g. flashing, caulk).

Step 2: Mounting System Information

1. Is the mounting structure an engineered product designed to mount PV modules with no more than an 18" gap beneath the module frames? Yes _____ No _____

If No, provide details of structural attachment certified by a design professional.
Manufacturer's engineering specifications are sufficient to meet this requirement.

2. For manufactured mounting systems, fill information on the mounting system below:

- a. Mounting System Manufacturer _____
- b. Product Name and Model # _____
- c. Total Weight of PV Modules and Rails _____
- d. Total Number of Attachment Points _____ (must be equally distributed across the array)
- e. Weight per Attachment Point (c + d) _____ lbs
- f. Maximum Spacing between Attachment Points on a Rail _____ inches
(see product manual for maximum spacing allowed based upon maximum wind speed).
- g. Total Surface Area of PV Modules (square feet) _____ ft²
- h. Distributed Weight of PV Module on Roof (c + g) _____ lbs/ft²

Step 3: Electrical Review of PV System

Please document the following information to be issued an electric permit. If the installation does not meet the following thresholds, additional may be needed, as required by the permit official.

- 1. PV modules, utility-interactive inverters, and combiner boxes are identified for use in PV systems.
- 2. The PV array is composed of 4 series strings or less per inverter.
- 3. The total inverter capacity has continuous AC power output 13,400 watts or less
- 4. The AC interconnection point is on the load side of service disconnecting means (NEC 2011 705.12(D), NEC 2008 690.64 (B)), NEC 2011 690.64 1 & 2 Dwelling, NEC 2017 705.12, NEC 2017 690359 Commercial.
- 5. A standard electrical diagram should be used to accurately represent the PV system. Acceptable diagrams, in interactive PDF format, are available at www.solarabcs.org/permitting.

Fill out the standard electrical diagram completely. A guide to the electrical diagram is provided at www.solarabcs.org/permitting to help the applicant understand each blank to fill in. If the electrical system is more complex than the standard diagram can effectively communicate, provide an alternate diagram with appropriate detail.

Step 4: Permit fee for residential installations

List each required permit fee

_____ Electrical permit fee

_____ Site plan review

_____ Inspection fee (structural, rough-in?)

_____ Final inspection fee

TOTAL FEE: \$ _____

RECEIPT NO. _____

DATE _____

I HEREBY CERTIFY that I have completed and examined this application and certify that the information contained therein is correct. If a permit is issued, I agree work will be done in conformance with all applicable ordinances and codes of this City and the laws of the State of Wisconsin.

CONTRACTOR OR AUTHORIZED AGENT/HOMEOWNER