

Borough of Etna Solar Photovoltaic (PV) Permit Application

Applicability: This Solar Photovoltaic Permit Application may be used for systems with the following qualifications:

- A total inverter capacity with a continuous AC power output of 13,440 watts (13.44kW) or less;
- A distributed weight load of less than or equal to five (5) lbs. per sq. ft.;
- A point load of less than or equal to 45 lbs. per sq. ft.;
- Installation on a roof with a single layer of lightweight roofing material;
- A mounting structure with an engineered product designed to mount PV modules with no more than an 18" gap beneath the module frames;
- The installation is overseen by a trained solar professional and a licensed Pennsylvania contractor;
- The installer assumes liability for the installation and the roof structure as it pertains to the installation.

If the System does not meet any of the above qualifications or the answer is "NO" to any of the questions in Steps 1 and 2 below, the municipality may require further information or review as it deems appropriate.

Questions regarding this Application should be directed to: Mary Ellen Ramage, Borough Secretary/Manager. Definitions of terms used in this Application and sample application documents can be found in the *Solar Guide for Municipalities*.

Materials needed upon permit application submission

1. A completed copy of this Solar Photovoltaic Permit Application.
2. A site plan showing location of major components on the property. This drawing need not be to scale, but it should represent relative location of components at site (A sample site plan is included in the *Guide*.)
3. A single-line electrical diagrams showing the configuration of the photovoltaic ("PV") array, the wiring system, the overcurrent protection, the inverter, the disconnects, any required signs, and the AC connection to the building.
4. Specification sheets and installation manuals (if available) for all manufactured components including, but not limited to, PV modules, inverter(s), combiner box, disconnects, and mounting system.
5. An application fee of \$ 75.00.

Basic Information

Brief System Description _____

(eg, number and power rating of panels; total power rating of system; panel and inverter manufacturer; inverter/microinverter output, location of system on property)

Address of Project: _____

Applicant Name: _____

Address: _____

Telephone Number: _____

E-mail address: _____

Installation Company (The System must be installed by a contractor licensed by the Commonwealth of Pennsylvania):

Address: _____

Telephone Number: _____

E-mail address: _____

HIC#: _____

Property Owner (if different from the Applicant):

Name: _____

Address: _____

Telephone Number: _____

E-mail address: _____

Owner of Solar System (if different from Applicant or Property Owner):

Name: _____

Address: _____

Telephone Number: _____

E-mail address: _____

Installer Qualification: The installation of the System will be overseen by (check one below):

- NABCEP certified solar equipment installer
- UL certified solar equipment installer
- Electrical contractor with a license accepted by the municipality
- Solar installer on the approved list for the Pennsylvania Sunshine grant program

Name of person with above qualification: _____

Step 1: Structural Review of PV Array Mounting System

A. Roof Information:

YES NO Does the roof have a single roof covering?

YES NO Is the roofing type lightweight (composition, lightweight masonry, metal, etc.)?

Roofing Material Description _____

Note: Roof structures supporting heavier roofing materials (e.g. slate, heavy masonry, tile) may not have the assumed dead loading and live loading capacities that are found with lighter weight roofing materials and may justify a further review to clarify whether the roof structure is either in compliance or needs enhancement.

YES NO Is weatherproofing sealant compatible with the roofing material. Describe method *and* type of weatherproofing roof penetrations (e.g. flashing, caulk) _____

YES NO Has the installer conducted a visual inspection of the roof and confirmed that there is no pre-existing damage? (If damage is noted, provide details for any work necessary to repair the existing roof structure.)

B. Mounting System Information:

YES NO Is the mounting structure an engineered product designed to mount PV modules with no more than an 18" gap beneath the module frames? If YES, complete information on the mounting system below:

a. Mounting System Manufacturer _____

Product Name and Model# _____

b. Total Weight of PV Modules and Rails _____ lbs

c. Total Number of Attachment Points _____

d. Weight per Attachment Point (Total Weight of Modules and Rails (from line b.) ÷ Total Number of Attachment Points (from line c.) = _____ lbs.

YES NO Is the point load weight in line (d.) above, less than or equal to 45 lbs? If YES, complete the following:

e. Maximum Spacing Between Attachments Points on a Rail = _____ inches
(see product manual for maximum spacing allowed based on maximum design wind speed)

f. Total Surface Area of PV Modules (square feet) _____ ft².

g. Distributed Weight of PV Module on Roof (Total Weight of PV Modules and Rails (from line b.) ÷ Total Surface Area of PV Modules (from line f.) = _____ lbs/ft².

YES NO Is the distributed weight in line (g) above, less than or equal to 5 lbs/ft²?

Step 2: Review of PV System (Calculations for Electrical Diagram)

- YES NO 1. The total inverter capacity has a continuous AC power output of 13,440 Watts or less?
- YES NO 2. PV modules, utility-interactive inverters, and combiner boxes are identified for use in PV systems.
- YES NO 3. The PV array is composed of 4 series strings or less per inverter.
- YES NO 4. The AC interconnection point is on the load side of service disconnecting means.
- YES NO 5. Can one of the four standard electrical diagrams (standard string system, micro-inverter, AC Module or Supply-Side Connection systems) be used to accurately represent the PV system? (refer to *Guide*)

Step 3: Inspection of PV System

1. A Pennsylvania certified electrical inspector (the "Inspector") must conduct an on-site inspection of the System.
2. The Inspector must verify the accuracy of the information provided in Steps 1 and 2 above.
3. The Inspector must execute the below verification of the inspection of the System and submit approval to municipality.

Certification of the Designated Representative of the Solar Installation Company

I, _____, on behalf of _____ (the "Company") hereby represent and warrant that:

- (a) The information provided in this permit application is accurate and complete to the best of my knowledge;
- (b) The building and its roof are structurally capable of supporting the System; and
- (c) The System will be designed and installed in compliance with the applicable requirements of the Pennsylvania Uniform Construction Code, National Electric Code and other applicable construction codes.

The Company hereby assumes all liability associated with the installation of this System, including any liability arising out of or resulting from the roof supporting the System, and shall indemnify, defend and hold harmless and its employees and third party inspectors from and against any claims referring or relating to (1) the accuracy of any information, representation or statement made in this Application; or (2) the representations and warranties made in this Certification.

I have been duly designated by the Company to execute this certification on its behalf.

Installation Company: _____

Installer/Company Representative Name: _____

Signature: _____ Date: _____

For Electrical Inspector: I have inspected this system installation and have verified to the best of my ability that the information provided is accurate.	
Inspector Name:	_____
Inspector Company:	_____
Address:	_____
Signature:	Date: _____