

300-RICR-00-00-3

TITLE 300 – OFFICE OF ENERGY RESOURCES

CHAPTER 00 - NA

SUBCHAPTER 00 - NA

PART 3 – Statewide Solar Energy Permit Application

3.1 PURPOSE

The purpose of these regulations is to create a statewide solar energy permit application that will provide applicants with a predictable and universal process for obtaining a single permit from municipalities that encompasses both building and electric permits for solar photovoltaic systems.

3.2 AUTHORITY

These regulations are promulgated by the Rhode Island Office of Energy Resources, in consultation with the Rhode Island State Building Code Commission, pursuant to 2017 R.I. Pub. Laws Chapter 10, § 1 (enacted June 19, 2017). 2017 R.I. Pub. Laws Chapter 10, § 1 is expected to be codified as R.I. Gen. Laws § 45-68-1 *et seq.*

3.3 SCOPE

These regulations apply to all municipalities. In accordance with 2017 R.I. Pub. Laws Chapter 10, § 1, municipalities will be required to ensure utilization of the statewide solar energy permit application beginning on January 1, 2018.

3.4 DEFINITIONS

- A. As used in these regulations the following definitions shall apply unless the context clearly requires otherwise:
1. “Alternating current” or “AC” means a type of electrical current, the direction of which is reversed at regular intervals or cycles. In the United States, the standard is 120 reversals or 60 cycles per second. Electricity transmission networks use AC because voltage can be controlled with relative ease.
 2. “Applicant” means an individual who is applying for a permit to install a solar photovoltaic system.
 3. “Commission” means the Rhode Island State Building Code Commission.

4. "Direct current" or "DC" means a type of electricity transmission and distribution by which electricity flows in one direction through the conductor, usually relatively low voltage and high current. To be used for typical 120 volt or 220 volt household appliances, DC must be converted to alternating current, its opposite.
5. "Energy storage" means the capture of energy produced at one time for use at a later time. A device that stores energy is sometimes called an accumulator or battery.
6. "Grid" means a commercial electric power distribution system that takes electricity from a generator (e.g., fossil fuel boiler and generator, diesel generator, wind turbines, water turbine, etc.), transmits it over a certain distance, then takes the electricity down to the consumer through a local distribution system. The entire system is referred to as the grid.
7. "Inverter" means an electronic device or circuitry that changes the DC output of the photovoltaic (PV) solar panels to a utility frequency AC that can be fed into a commercial electrical grid or used by a local, off-grid electrical network.
8. "Module" or "Solar panel" means many solar cells linked together to form a circuit and are mounted in a frame. PV solar panels generate DC electricity, which must then be converted to AC electricity by an inverter because the United States electrical grid uses AC power.
9. "Municipality" means a city or town located in the State of Rhode Island.
10. "Office" means the Rhode Island Office of Energy Resources.
11. "One line electrical diagram" means a drawing showing the number of photovoltaic panels with voltage and kilowatt output, the size of the main service panel, and other electrical information related to the project.
12. "Rhode Island professional engineer" means:
 - a. a person who has been registered and licensed by the State Board of Registration for Professional Engineers and holds a certificate of registration in the discipline of structural engineering in accordance with R.I. Gen. Laws § 5-8-3(c)(3) and Section 130.20.3 of the Board of Registration for Professional Engineers "Rules and Regulations for Professional Engineering in the State of Rhode Island"; or
 - b. a person who received a general professional engineer license in Rhode Island prior to April 1, 1995 and who is eligible to stamp structural design drawings because his or her practice, education and experience are in the field of structural engineering.

13. “Solar photovoltaic system” or “PV system” means an arrangement of several components, including solar modules to absorb and convert sunlight into electricity, a solar inverter to change the electric current from DC to AC, as well as mounting, cabling and other electrical accessories to set up a working system.
14. “Statewide solar energy permit application” means a standard application used by municipalities that covers both the building and electrical permit aspects of solar system installations.
15. “128 project certification form” means the form created in accordance with R.I. Gen. Laws § 23-27.3-128 *et seq.* of the Rhode Island Building Code.

3.5 STATEWIDE SOLAR ENERGY PERMIT APPLICATION

- A. The Office shall develop a statewide solar energy permit application by incorporating the contents listed in § 3.5(D) of this Part.
- B. The Office may, from time to time, amend the statewide solar energy permit application and shall notify the municipalities of any amendments to the application.
- C. Each municipality shall require applicants to utilize the statewide solar energy permit application.
- D. At a minimum, the statewide solar energy permit application shall contain the following information and documentation:
 1. Name and address of the owner of the property;
 2. Address of the property on which the PV system will be installed, including section, plat, and lot number;
 3. Whether the property is in a historic district;
 4. Whether the use of the PV system is for a one or two family residence, townhouse, commercial, or other;
 5. Total PV system size, both AC and DC;
 6. Interconnection location in reference of existing meter (i.e. utility side or customer side);
 7. Mounting structure (i.e. ground, roof, or solar canopy);
 8. Whether an energy storage component is associated with the PV system, and, if yes, whether the storage use is for backup power or grid services, and how the storage unit will be charged (i.e. solar PV, grid, or both);

9. Business name and address of the applicant (including Rhode Island registration number) and electrician(s) working on the solar installation (including Rhode Island license number);
10. Existing roofing material (i.e. metal, asphalt, fiberglass, wood, membrane, other);
11. Method and type of weatherproofing for roof penetrations (i.e. flashing, caulk);
12. Whether the mounting structure has been engineered and designed to mount solar electric modules and, if not, the details of the mounting structure in a letter from a Rhode Island professional engineer;
13. For manufactured mounting systems:
 - a. Mounting system manufacturer;
 - b. Mounting system make and model number;
 - c. Total weight of solar electric modules and rails (expressed in lbs.);
 - d. Total number of attachment points;
 - e. Weight per attachment point (expressed in lbs.);
 - f. Maximum spacing between attachment points on a rail (expressed in inches);
 - g. Designed wind speed (expressed in mph);
 - h. Total surface area of solar electric modules (expressed in ft²);
 - i. Distributed weight of solar electric module on roof (expressed in lbs/ft²);
14. Inverter and module(s), including the quantity, make, and model;
15. Stamped structural letter signed by a licensed Rhode Island professional engineer;
16. Site plan for ground mounted units;
17. Layout drawing;
18. One line electrical diagram;
19. Manufacturer specification sheets for equipment including modules, inverter(s), racking, and storage equipment (if applicable);

20. For all installations 15kW AC or larger, a 128 project certification form;
21. For all residential (one and two family) installations, certification from a Rhode Island professional engineer that the current structure is able to accommodate all code design loads including, but not limited to, uplift loads, and/or engineered design criteria to modify the existing structure to accommodate said loads; and
22. Signature of applicant and date of application.

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