

TOWN OF SCITUATE
DRAFT SOLAR ORDINANCE

Dated: February 26, 2020

ARTICLE (-). - RENEWABLE ENERGY

Sec. X.1. - Solar.

Section X.1.1. Solar Energy Facilities

- A. **Purpose.** The purpose of this article is to regulate the installation of solar energy facilities by providing standards for the placement, design, construction, operation, monitoring, modification, and removal of such facilities that address public safety, minimize impacts on scenic, natural, and historic resources, and are compatible with the Town's Comprehensive Plan.
- B. **Applicability.** The provisions of this section shall apply to placement, design, construction, operation, monitoring, expansion and/or repair of any solar energy facility in the Town of Scituate.
- C. **General Requirements.** All solar energy facilities shall comply with the following requirements:
 - (1) Location of Solar energy facilities shall be allowed in accordance with Article II, Section 11 of the Town of Scituate Zoning Ordinance.
 - (2) It is strongly encouraged that solar energy facilities be located on rooftops, contaminated sites, gravel banks, quarries, parking lots and in existing industrial zones.
 - (3) Building permit and inspection. No solar energy facility shall be constructed, installed, or modified without first obtaining a building permit and shall be subject to periodic inspections as deemed necessary by the building official and/or electrical inspector.
 - (4) No individual panel within a ground-mounted solar energy facility shall exceed 12 feet in height. Solar canopies are exempted from this requirement.
 - (5) Proposed site re-grading shall not be excessive and shall be kept to a minimum amount necessary. No removal of topsoil or unnecessary disturbance of the ground or grading is permitted as part of the installation or maintenance. Any topsoil that must be removed shall be stored and stabilized on-site for future use.
 - (6) A building mounted solar energy facility shall not exceed the permitted building height as set forth in Article III.
 - (7) Decommissioning. Any solar energy facility which has reached the end of its useful life, sustained casualty loss, or other significant damage, is not repaired or used or has reached a point of obsolescence, or is not being properly maintained, shall be removed within 180 days of the precipitating event from the date of discontinued operations. A decommissioning estimate prepared by a RI licensed engineer, must be approved by the Plan Commission during the Preliminary Phase of review. Each element of the decommissioning cost estimate must include verifiable source with contact information. Decommissioning shall consist of:
 - a. Physical removal and recycling of all solar energy facility structure, equipment, security barriers, fencing and transmission lines from the site.
 - b. Disposal of all solid and hazardous waste in accordance with all federal, state and local laws, regulations and ordinances.

- c. Stabilization and re-vegetation of the site, including, but not limited to, the site and any land or area impacted by the removal of energy site facilities structure, equipment, security barriers, fencing and transmission lines, in compliance with all state and local laws, regulations and ordinances necessary to minimize erosion and maximize restoration. The site shall be inspected by the Town of Scituate Zoning Officer and/or his/her designee in coordination with Town staff for compliance.
- (8) Financial surety. Prior to the issuance of a building permit for a medium, large or utility scale ground mounted or solar canopy solar energy facility, an escrow agreement, bond, letter of credit or escrow fund by an A rated or above institution to cover 125% of the cost of decommissioning, as approved by the Plan Commission. Decommissioning shall be defined broadly and shall include, but not be limited to, those instances as set forth in Section C (6) as well as for failure to use, maintenance and upkeep of the ground mounted or solar canopy solar energy facility.
- (9) Parking and circulation. The applicant shall demonstrate that adequate access and parking are provided for service and emergency vehicles as determined by the Commission in consultation with the Fire Marshal.
- (10) Fencing. The applicant shall be required to install a minimum of a 6-foot fence around the perimeter of the solar energy facility. Barbed wire fencing is prohibited. The fence shall be installed a minimum of 8-inches off the ground to allow small animals to pass underneath. Newly installed fences shall be flagged for at least six (6) months to protect both fencing and wildlife. Solar canopies are exempt from this requirement.
- (11) Applicants must provide a thorough explanation and detail of any transmission lines access or upgrade required as a result of the project, including but not limited to the route starting and end points, potential impacts access routes, potential impacts to street trees and right-of way width for review.
- (12) Applicants must provide a thorough explanation and detail of any new or proposed upgrades to electrical substations that are related to the proposed project. Information necessary is includes but is not limited to location, screening, setbacks and noise impact for review.
- (13) Stormwater Management, Erosion and Sediment Control. Every effort shall be made to avoid and minimize changes to existing topography and hydrology. Site alterations must conform to the most recent edition of the Rhode Island Department of Environmental Management Stormwater Design and Installation Standards Manual and the Rhode Island Soil Erosion Control Handbook as well as all applicable Town regulations. All applicable erosion and sediment controls must be in place prior to the start of construction, including site work.
- (14) Siting and screening. The solar facility shall be sited and screened to minimize the aesthetic effect of solar facilities on viewsheds for abutting/adjoining property owners and within the community. The design to be implemented shall incorporate landscaping and design elements to visually screen the installation from view of public roads and abutting/adjoining properties to the maximum extent practicable. Pre and Post viewshed analysis samples shall be submitted from all degrees of abutting and adjoining properties to ensure minimization of effects of solar facilities on viewsheds. Solar installations shall maintain a two hundred (200') foot undisturbed vegetated setback from all abutting/ adjoining or adjacent properties and roadways. If planting is required within the designated setback due to lack of natural screening, such shall be a minimum of 6 feet in height at the time of installation. As part of the Major Land Development or Development Plan review process the Plan Commission may increase or decrease the two-hundred foot (200)'setback requirement or require additional screening elements dependent on-site characteristics such as slope, wetland area, existing buffering, etc.
- (15) Reasonable efforts shall be made to place all utility connections from the facility underground, depending upon appropriate soil conditions, shape, topography of the site, sub-surface conditions, and any requirements of the utility provider.

- (16) Lighting of a ground-mounted solar energy facility shall be consistent with local, state, and federal law. Lighting of other parts of the facility, including but not limited to appurtenant structures, shall be consistent with local, state and federal law and shall be limited to that required for safety and operational purposes, and shall be reasonably shielded from abutting properties. Where feasible, lighting of the facility shall be directed downward and shall incorporate full cut-off fixtures to reduce light pollution.
- (17) Solar energy facilities and associated equipment shall not be allowed on land held under conservation easement or land for which the development rights have been sold, transferred, or otherwise removed from the parcel, unless the conditions of the easement, deed or other legal document specifically allows for such facility and the applicant shall provide proof of same at the time of initial application.
- (18) All solar energy facilities shall be designed and located to prevent glare toward any inhabited buildings or adjacent properties. Glare generated from solar panels shall not interfere with traffic or create a nuisance or safety hazard.
- (19) The applicant is required to provide verification from a RI licensed landscape architect at the preliminary stage of review that the landscape buffer and visual screening is adequate to thoroughly screen the solar energy facility year-round as contemplated by this ordinance. In addition, the required vegetated buffer/screening shall be maintained for the life of the solar energy facility. The property owner and/or facility owner shall be required to replant any section as determined by the Zoning Enforcement Officer with consultation with Town Staff. The applicant shall provide a landscape performance/maintenance bond by an A rated or above institution in the amount established by the Plan Commission.
- (20) In any areas of the site where prime farmland or farmland of statewide importance, as determined by the United States Department of Agriculture Natural Resource Conservation Service within the most recent Rhode Island Soil Survey, where the solar facility or a portion of is proposed the following is required:
- a. If soils need to be removed from areas of the site for installation purposes, the soils must be stored on site for future reclamation and areas under the panels are to be replanted with grass or low growth vegetation that is listed in the University of Rhode Island's native plant database;
 - b. Siting of the facility overall and individual panels shall keep with the existing contours of the land, and only pile driven, or ballast block footings are to be used, to minimize the disturbance of soils during installation; and
 - c. It is strongly recommended that required vegetative buffers be composed of plant materials listed in the University of Rhode Island's native plant database (except as otherwise permitted in this ordinance), with a preference for pollinator-friendly materials to the maximum extent practicable.
- (21) Battery storage facilities or any other energy storage facilities are prohibited
- (22) Construction of solar energy facilities shall be limited to the hours of 7:00 am to 5:00 pm Monday thru Friday excluding holidays.
- D. **Applications for Major Land Development Projects.** Applications shall include, in addition to the requirements of the Town's Land Development and Subdivision Regulations, the following items. These items are required for submission for the Administrative Officer to certify the application as complete and place it on an agenda for review at the Master Plan (and subsequent stages) stage of review unless otherwise specified. The Plan Commission may waive any document requirement it deems appropriate upon written request of the applicant.
- (1) Class I comprehensive boundary survey site plan including T-1 topography survey

- (2) Property lines and all physical features for the project site
- (3) Proposed changes to the landscape of the site, grading, vegetation clearing and planting, exterior lighting, and screening vegetation or structures that conform to the Town's Land Development and Subdivision Regulations
- (4) A site plan of the solar energy facility showing the proposed layout of the system and any potential shading from nearby structures or vegetation.
- (5) One- or three-line electrical diagram detailing the solar energy facility, associated components, and electrical interconnection methods, with all current state electrical code compliant disconnects and over current devices; (required at Preliminary Stage)
- (6) Documentation of major system components to be used, including the energy panels, mounting system and inverter; (required at Preliminary Stage)
- (7) An operation and maintenance plan which addresses site access maintenance, vegetation management, panel maintenance, equipment and fence maintenance and any other maintenance that may be needed to address town requirements imposed as a result of unique site conditions. No maintenance practice shall include the use of chemicals, solvents, salts or any other type of solution that could potentially be harmful to groundwater; (required at Preliminary Stage)
- (8) Proof of liability insurance in an amount approved by the town; (required at Preliminary Stage)
- (9) Decommission/restoration plan including an itemized cost estimate for the decommissioning and restoration of the site; (required at Preliminary Stage)
- (10) A copy of the Preliminary Interconnection Feasibility Study (or the equivalent) from National Grid or the applicable utility company
- (11) A zoning certificate for the property on which the solar facility is proposed
- (12) The calculated square footage of the proposed solar facility including rows and interspacing between panels to be used to calculate the fee for each stage of review and the calculation of the coverage area; (required at Preliminary Stage)
- (13) A project narrative, which shall contain a summary of the proposed facility, a description of the facility's context in relation to the surrounding neighboring land use and environmental features, and detail regarding the proposed operational characteristics of the solar energy facility, including features concerning the means and methods planned to minimize or avoid off-premise impact on adjoining land use;
- (14) A landscape plan, stamped by a Rhode Island registered Landscape Architect showing the following information:
 - a. Pre and Post viewshed analysis, any existing lot issues that would impact adjoining lots.
 - b. That the land beneath the panels will be reseeded after installation with a grass or low growth vegetation that is listed in the University of Rhode Island's native plant database to the maximum extent practicable
 - c. It is strongly recommended that required vegetative buffers are comprised of plant materials listed in the University of Rhode Island's native plant database, with a preference for pollinator-friendly materials
 - d. Any areas of buffering or screening required by the Plan Commission
 - e. Only native vegetation and planting shall be used as screening for solar facilities. Additional landscaping vegetation and plantings must not be

conspicuously different than the existing natural vegetation and planting in the project vicinity, both in the types of plants and layout configuration

f. The Plan Commission may allow for exceptions to these requirements if the applicant requests to plant non-invasive harvest crops to allow agricultural production within the limits of the solar installation.

g. Building Mounted solar energy facilities and Solar Canopies are exempt from the landscape requirement.

(15) Proof of Bonding. The applicant shall provide proof of all bonding for decommissioning, restoration and maintenance, as defined herein.

E. To Ensure the Fulfillment of The Requirements of This Section, the Plan Commission shall have the authority to require the following:

- (1) Adjustments to the proposed location of the solar energy facility determined to be necessary to mitigate negative impacts to adjacent properties or impacts to the general public through loss of scenic vistas and/or cultural and/or historic character.
- (2) The provision of additional landscaping beyond the minimum requirements of this section and the Towns Land Development and Subdivision Regulations, where such is necessary to mitigate negative impacts to adjacent properties or prominent viewsheds, or due to the unique characteristics of the subject property.
- (3) Submission of an Impact Assessment in accordance with Sec. 14-28. (h) of the Subdivision and Land Development Regulations at the Master Plan Review Stage.

F. Additional Requirements for Solar Energy Facilities in All Residential Zones:

- (1) Ground mounted solar facilities allowed pursuant to this Section shall have a solar land coverage of no more than 50 percent of the parcel on which they are located including existing structures. The Plan Commission may waive this requirement if they find that the parcel and/or circumstances of the facility are unique and/or would serve a public benefit and/or the potential abutting impacts have been adequately mitigated to allow a higher percentage of solar land coverage, this is including but not limited to contaminated sites, gravel banks and landfills. Conversely, the Plan Commission may require a reduction in solar land coverage if they find that the parcel or the circumstances of the facility are unique with regards to environmental considerations, potential impact to abutters, consistency with the comprehensive plan or other such circumstance in which the Plan Commission determines a reduction is warranted.
- (2) Any subsequent subdivision of a parcel in a residential zone that contains a solar energy facility shall be required to maintain the minimum parcel size on which the facility exists, as well as not exceeding the solar land coverage established in this ordinance.

G. Additional Requirements for Solar Energy Facilities in Non-Residential Zoning Districts (BL, BG and M)

- (1) Ground mounted solar facilities BL, BG and M zones shall have a solar land coverage of no more than 60 percent of the parcel on which they are located including existing structures.

H. Additional Requirements for Solar Energy Facilities Along Scenic Highways:

- (1) Ground mounted solar facilities located adjacent to a designated (local or state) scenic highway shall locate the solar facility, including solar panels and any appurtenant structures, out of the viewshed of the scenic highway.

Section X.1.2. Procedural Requirements

A. Building Mounted Solar Energy Facilities

1. Building mounted solar energy facilities are permitted in all zoning districts per Article II Section 10 of the Zoning Ordinance.
2. Issuance of a building permit (local and/or state) is required prior to any installation of a building mounted solar energy facility.
3. All building mounted solar energy facilities adjacent to a scenic roadway (local or state designated) shall place the solar panels and appurtenant structures out of the viewshed from the scenic highway, where possible.
4. No individual panel, within a building mounted solar energy facility, shall exceed the permitted building height for the zoning district, which the structure the panel is mounted on is located.

B. Solar Canopies

1. Solar canopies shall be located over parking lots, driveways or walkways
2. All solar canopies shall meet the applicable zone requirements including but not limited to lighting, setbacks and signage. Lot coverage is exempt except to the extent to meet the Special Use Permit requirements.
3. All medium and large-scale solar canopies shall meet the following:
 - a. Development Plan Review approval from the Plan Commission
 - b. Applicable general requirements identified in Section X.1.1.C

C. Small Scale Solar Energy Facilities

1. All small-scale solar energy facilities are required to apply for Commercial Site Plan Review in Accordance with Section 13 of the Zoning Ordinance. In Addition to the requirements found in Section 13, all applicable requirements under Section X.1.1.C shall apply.

D. Medium Scale Solar Energy Facilities

1. All medium-scale solar energy facilities are required to apply for Commercial Site Plan Review and a Special Use Permit in Accordance with Section 13 of the Zoning Ordinance. In Addition to the requirements found in Section 13, all applicable requirements under Section X.1.1.C shall apply.

E. Large Scale Solar Energy Facilities

1. All large-scale solar energy facilities are required to apply for Commercial Site Plan Review and a Special Use Permit in Accordance with Section 13 of the Zoning Ordinance. In Addition to the requirements found in Section 13, all applicable requirements under Section X.1.1.C shall apply.

F. Utility Scale Solar Energy Facilities

1. All utility-scale solar energy facilities are required to apply for Commercial Site Plan Review and a Special Use Permit in Accordance with Section 13 of the Zoning Ordinance. In Addition to the requirements found in Section 13, all applicable requirements under Section X.1.1.C shall apply.

INSERT DISTRICT USE TABLE – It is proposed that all proposed solar energy facilities will be allowed by special use permit in all zoning districts.

Section X.1.3. Definitions

Accessory Building- Mounted Solar Array. A solar energy system that is incidental and subordinate to the principal use(s) of the parcel, where the power produced can be used onsite, virtual net metered or sold back to the electric distribution company. An accessory building-mounted system shall be installed only on the roof of a structure.

Ground-Mounted Solar Energy Facility. A solar energy system that is structurally appended to the ground and is not supported by a structure or building.

Large-Scale Solar Energy Facility. A solar energy system that occupies 40,000 square feet up to 220,000 square feet, inclusive of inter-row and panel/collector spacing

Medium-Scale Solar Energy Facility. A solar energy system that occupies more than 1,600 square feet but less than 40,000 square feet of area, inclusive of inter-row and panel/collector spacing.

Building-Mounted Solar Energy Facility. A solar energy system that is structurally appended to the roof of a building or structure.

Small-Scale Solar-Energy Facility. A solar energy system that occupies 1,600 square feet of area or less, inclusive of inter-row and panel/collector spacing.

Solar Canopy. A solar energy facility that is located on a new elevated structure that hosts solar panels and provides shelter to a parking area, driveway or walkway underneath.

Solar Energy Facility. The equipment and requisite hardware that provide and are used for collecting, transferring, converting, storing, or using incident solar energy for applications that would otherwise require the use of a conventional source of energy such as petroleum products, natural gas, manufactured gas or electricity produced from a non-renewable source. This shall include photovoltaic arrays and installations that utilize building-mounted and/or ground-mounted systems.

Solar Land Coverage. The total footprint of land occupied by all components of a solar energy system including but not limited to solar panels, mounting equipment, ancillary components of the system, inter-row and panel/collector spacing, access, and all other areas within the required perimeter fencing.

Utility-Scale Solar Energy Facility. A solar energy system that occupies more than 220,000 square feet of area, inclusive of inter-row and panel/collector spacing.