#### **ORDINANCE NO. 21-02**

## **TOWN OF SCITUATE**

## AN ORDINANCE AMENDING CODE OF ORDINANCES APPENDIX A - ZONING

**Section 1.** The Town Council of the Town of Scituate hereby ordains that Appendix A, of the Code of Ordinances, Town of Scituate entitled Zoning is amended as follows:

Note: Words set as strikeover are to be **deleted** from the ordinance; words set in <u>underline</u> are to be **added** to the ordinance.

#### ARTICLE II - DISTRICT USE REGULATIONS

The following uses are permitted only in the districts marked with an "X." Uses permitted in the districts as special use permits under the provisions of Article 1, Section 6C of this ordinance are marked with an "S." The top horizontal row in each use is the Town-wide Zoning; the bottom shaded row in each use is for Village Overlay Districts only.

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Use	District				
Section 13. Renewable Energy	RR-120 RRW- 60/80	RS-120 RSW- 60/80	BL	BG	M
1. Building Mounted Solar Energy Facility	X	X	X	X	X
	X	X	X	X	X
2. Solar Canopy	<u>S</u>	<u>S</u>	X	X	X
	<u>S</u>	<u>S</u>	<u>S</u>	<u>S</u>	<u>S</u>
3. Small Scale Solar Energy Facility	<u>X</u>	X	X	X	X
	X	X	X	X	X
4. Medium Scale Solar Energy Facility	<u>S</u>	<u>S</u>	<u>S</u>	<u>S</u>	<u>S</u>
	<u>S</u>	<u>S</u>	<u>S</u>	<u>S</u>	<u>S</u>
5. Large Scale Solar Energy Facility	<u>S</u>	<u>S</u>	<u>S</u>	<u>S</u>	<u>S</u>
	<u>S</u>	<u>S</u>	<u>S</u>	<u>S</u>	<u>S</u>
6. Utility Scale Solar Energy Facility	<u>S</u>	<u>S</u>	<u>S</u>	<u>S</u>	<u>S</u>
	<u>S</u>	<u>S</u>	<u>S</u>	<u>S</u>	<u>S</u>
7. Wind Energy Facility					
	<u>S</u>	<u>S</u>	<u>S</u>	<u>S</u>	<u>S</u>
8. Wind Turbine					
	<u>S</u>	<u>S</u>	<u>S</u>	<u>S</u>	<u>S</u>

## ARTICLE XIII - RENEWABLE ENERGY

#### Section XIII.1 - Solar.

## Section XIII.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. <u>Applicability</u>. 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.
  - <u>Small-scale accessory residential systems are exempt from the requirement of this ordinance.</u>
- <u>C.</u> <u>General Requirements</u>. All solar energy facilities shall comply with the following requirements:
  - (1) <u>Location of Solar energy facilities shall be allowed in accordance with Article II, Section 11 of the Town of Scituate Zoning Ordinance.</u>
  - (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) All plans for solar installations on "commercial property" (i.e. other than 1, 2 & 3 family dwellings at this time) shall comply with the requirements of the RI Fire Code, as amended and shall be submitted to the appropriate Fire Marshal and/or Fire Chief for review
  - (5) No individual panel within a ground-mounted solar energy facility shall exceed 12 feet in height. Solar canopies are exempted from this requirement.
  - (6) 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.
- (7) A building mounted solar energy facility shall not exceed the permitted building height as set forth in Article III.
- (8) 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.
  - <u>b.</u> <u>Disposal of all solid and hazardous waste in accordance with all federal, state and local laws, regulations and ordinances.</u>
  - 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.
- (9) 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 XIII.1.1.C(8) as well as for failure to use, maintenance and upkeep of the ground mounted solar canopy solar energy facility.

This surety shall be automatically renewed annually for a minimum of 20 years or for the anticipated life of the solar energy facility. This surety must be updated on a regular basis (at least every 5 years) to account for inflation.

- (10) 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.
- (11) 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.
- (12) 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 to access routes, potential impacts to street trees and right-of way width for review.
- (13) 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.
- (14) 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.
- (15) 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 onsite characteristics such as slope, wetland area and existing buffering. etc.
- (16) 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.
- (17) Lighting of a ground-mounted solar energy facility shall be consistent with local, state, and federal law. Lighting of other parts of the facility, such as appurtenant structures, 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.
- (18) 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.
- (19) 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.
- (20) 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.
- (21) 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.
- (22) Mechanical Equipment. All mechanical equipment associated with solar energy systems, including but not limited to controls, energy storage devices, batteries, heat pumps, exchangers or other materials, hardware or equipment necessary to the process by which solar radiation is converted into another form of energy shall be located and enclosed within structures/fencing to prevent unauthorized access.
- (23) Construction of solar energy facilities shall be limited to the hours of 7:00 am to 5:00 pm Monday thru Friday excluding holidays.
- (24) Floating photovoltaic installations are prohibited.
- D. Applications for Major Land Development Projects Commercial Site Plan Review. 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 in order 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) Calculations shall be provided that demonstrate the Carbon Dioxide offset by the proposed solar facility.
- (14) 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;

- (15) A landscape plan, stamped by a Rhode Island registered Landscape Architect showing the following information:
  - a. Pre and Post viewshed analysis of 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.
- (16) Proof of Bonding. The applicant shall provide proof of all bonding for decommissioning, restoration, and maintenance, as defined herein.
- E. <u>To Ensure The Fulfillment Of The Requirements Of This Section</u>, 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 30 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. <u>Additional Requirements For Solar Energy Facilities In Non-Residential Zoning Districts (BL, BG And M)</u>

(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 XIII.1.2. Procedural Requirements

## A. Building Mounted Solar Energy Facilities

- (1) <u>Building mounted solar energy facilities are permitted in all zoning districts per Article II, Section 10 of the Zoning Ordinance.</u>
- (2) <u>Issuance of a building permit (local and/or state)</u> 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 XIII.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 IV.13 of the Zoning Ordinance. In Addition to the requirements found in Section IV.13, all applicable requirements under Section XIII.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 IV.13 of the Zoning Ordinance. In Addition to the requirements found in Section IV.13, all applicable requirements under Section XIII.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 IV.13 of the Zoning Ordinance. In Addition to the requirements found in Section IV.13, all applicable requirements under Section XIII.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 IV.13 of the Zoning Ordinance. In Addition to the requirements found in Section IV.13, all applicable requirements under Section XIII.1.1.C shall apply.

### Section XIII.1.3. Definitions

- A. 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.
- B. 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.
- C. <u>Large-Scale Solar Energy Facility</u>. A solar energy system that occupies 40,000 square feet up to 220,000 square feet, inclusive of inter-row and panel/collector spacing
- D. <u>Medium-Scale Solar Energy Facility</u>. A solar energy system that occupies more than 1,600 square feet but less than 40,000 square feet of area, inclusive of interrow and panel/collector spacing.
- E. <u>Building-Mounted Solar Energy Facility</u>. A solar energy system that is structurally appended to the roof of a building or structure.
- F. 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.
- G. 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. The size of a solar canopy shall follow the size definitions for solar energy facilities as defined herein.
- H. 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.
- I. 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.
- J. <u>Utility-Scale Solar Energy Facility</u>. A solar energy system that occupies more than 220,000 square feet of area, inclusive of inter-row and panel/collector spacing.
- K. Energy Storage Facility: Facilities that enable the storage of energy and the charging and discharging of power, with a storage capacity in excess of 80 kWh. Such facilities may include, but not be limited to, electrochemical storage batteries. battery chargers, controls, power conditioning systems, and associated electrical equipment designed to provide electrical power to a building or to a utility grid. The facility is typically used to provide standby or emergency power, an uninterruptable power supply, load shedding, load sharing or similar capabilities

#### Section XIII.2 - Wind.

## Section XIII.2.1. Wind Energy Facilities and Wind Turbines

## Section XIII.2.2. Definitions

- A. TOWER: The monopole, freestanding or guyed structure that supports a wind generator.
- B. <u>TURBINE HEIGHT:</u> The vertical distance from ground level at the base of the turbine to the tip of a rotor blade at its highest point.
- C. Wind Energy Facility. All of the equipment, machinery, and structures together utilized to convert wind to electricity. This includes, but is not limited to, developer-owned electrical equipment, storage, collection, and supply equipment, service and access roads, and one or more wind turbines.
  - 1. UTILITY-SCALE WIND FACILITY: A commercial wind facility where the primary use is intended to be electrical generation that will be sold to wholesale electricity markets.
  - 2. SMALL WIND ENERGY FACILITY: A wind facility located at a commercial, industrial, agricultural, residential, institutional or public facility that is designed and intended to generate electrical output primarily for the use or benefit of structures on the same lot or on contiguous commonly owned lots. Small wind facilities have a rated nameplate capacity of 80 kilowatts or less and a total height not exceeding 38 feet.

<u>D.</u> <u>Wind Turbine.</u> A device that converts kinetic wind energy into rotational energy to drive an electrical generator. A wind turbine typically consists of a tower, nacelle body, and a rotor with two or more blades.

#### Section XIII.2.3. Permit Requirements:

- A. Utility-scale wind facilities are not permitted.
- B. On-site small wind energy facilities are required to apply for Commercial Site Plan Review and a Special Use Permit in Accordance with Section IV.13 of the Zoning Ordinance. In Addition to the requirements found in Section IV.13, all applicable requirements under Section XIII.1.1.C shall apply.
- C. Where permitted, only one small wind energy system shall be allowed on a property.
- D. All approved small wind energy systems shall be required to undergo an annual safety review, and a certified inspection report shall be filed with the Zoning Officer.
- E. All approved turbines shall be set back a distance either 1) equal to or exceeding the maximum projectile distance (or thrown hazard) as determined by the manufacturer; or 2) equal to two times or greater the overall blade tip height of the turbine from the nearest existing residential or commercial structure, whichever is greater, and a distance at least equal to the overall blade tip height of the turbine from the nearest property line or public right-of-way. All other components of the wind facility (equipment, storage/generator sheds, transformers, substations, guy wires or support footings) shall meet the standard setbacks for the zone and all other relevant dimensional regulations, including those pertaining to lot coverage, buffers and accessory structure heights.
- F. All wind energy facility owners shall provide a copy of their site plans and construction plans, and, ultimately, the as-built plan sets, to local emergency service providers and cooperate with same in developing an emergency response plan.

## Section XIII.2.4. Design and Installation Standards:

A. Controls. Wind turbines shall have automatic braking, governing, feathering, deicing and/or shutdown systems as needed to prevent uncontrolled rotation, overspeeding, rotor breakage, or excessive pressure on the tower structure, blades and other turbine components.

B. Lighting. Wind turbines shall only be lighted if required by the FAA. Lighting of nontower parts of a wind turbine, such as appurtenant structures, shall be limited to that required for safety, security and operational purposes and shall be shielded from abutting properties consistent with the "dark skies" principle. Lighting glare on abutting properties shall be minimized except as required by the FAA.

C. Outside experts. The Zoning Board of Review may hire outside consultants and experts as needed at the applicant's expense to perform peer review studies done by a wind energy facility applicant or to

otherwise evaluate the design and installation impacts of a proposed wind turbine. Such review may cover any of the impacts addressed by this section and may also include a structural analysis of the proposed turbine, assessments of the expected power generation output of the facility, and any other topics deemed relevant by the ZBR.

- D. Visual impacts. To assess the visual impacts on a neighborhood, area or viewshed of a proposed wind system, the Zoning Board may require color photos of a site and its surrounding areas along with color photo simulations, by a qualified graphics professional, of said site and surroundings with the proposed wind facility superimposed thereon.
- E. Warnings. Clearly visible warning signage concerning voltage shall be placed at the base of all wind turbines, and turbines shall be designed to prevent unauthorized access. The Zoning Board may require protective fencing as reasonably necessary given the location of the wind turbine on the site or in relation to the neighboring area.
- F. Shadow flicker. Wind turbines shall be sited to minimize the shadow flicker effect on neighboring property. The applicant bears the burden of proving that significant adverse impacts will not occur, and failure to show same shall result in denial of the wind system petition. Required documentation may include simulations showing the angle of the sun at various times of the day and of the year and at any/all angles wherein surrounding property may be affected depending on projected turbine height.
- G. Utility connections. No special use permit for a wind energy facility will be issued until an applicant submits documentation from the relevant electrical utility, as applicable, approving the proposed connection.
- H. Environmental analysis. Depending on proposed size, scale and siting, wind energy facility applicants may be required to submit to the Zoning Board of Review a report, from a professional environmental consulting firm, that addresses the following factors:
- (1) Constraints imposed by environmental and/or archaeological regulations.
- (2) The presence of plant communities or animal species of concern or critical habitat for these species.
- (3) Presence of critical areas of species congregation such as maternity roosts, hibernation sites, staging areas, winter ranges, nesting sites and migration stopovers.
- (4) The potential for habitat fragmentation.
- (5) Known avian species that are either present at the site, that migrate through it, or that may be attracted by site alteration and current studies addressing potential impacts on them by the specific turbine type proposed.
- (6) An assessment of the general suitability of the site for wind development in light of potential environmental impacts.
- (7) Design and operational recommendations to avoid or minimize significant adverse environmental effects.
- (8) Recommended mitigation measures if significant impacts cannot be avoided.
- (9) Recommendation regarding post-construction studies that might evaluate animal mortality and other impacts so that operational adjustments can be made to mitigate as necessary.
- (10) A structural analysis from a registered professional engineer to show that the proposed setback is adequate assuming the event of a turbine blade break or throw.

#### Section XIII.2.5. Aesthetic, safety and environmental standards.:

- A. All wind energy system operators shall maintain a current liability insurance policy, subject to annual certification, which will cover all liabilities associated with installation and ongoing operation of the facility through decommissioning. The special use permit approval for such system shall be conditioned upon continuation of said policy.
- B. All approved wind turbines, and other wind-facility-related equipment, shall, to the extent possible, be constructed of neutral, nonreflective exterior colors designed to blend with the surrounding environment.
- C. Wind turbines shall not be sited in areas that will result in the turbine dominating the view of a scenic, natural, or historic resource of the Town from any prominent public vantage point. The Zoning Board may require perspective drawings, digital renderings, photographic simulations, constructed models and/or any other graphic depictions it deems useful in determining viewshed impacts.
- D. Signage at approved wind facilities shall be limited to those necessary to identify the owner, provide emergency contact information, and warn of any possible dangers.
- E. Utility connections from the wind facility shall be located underground unless soil conditions or site topography prevent it. The requirement for underground utilities can only be waived by the Zoning Board of Review if sufficient expert testimony is presented to its satisfaction that such connection is not viable.
- F. Noise levels resulting from operation of a wind turbine shall not raise area noise levels more than five dB(a) above ambient existing conditions and in no case shall noise levels from wind turbines exceed the maximums established by the Town Code at Chapter 152, Noise. Noise levels are measured at the lot lines of the turbine site, consistent with the provisions for assessing noise effects as found in aforementioned Chapter 152, Noise. The applicant may be required to produce documentation from a qualified acoustics professional demonstrating to the satisfaction of the Zoning Board of Review that the proposed installation complies with the purpose and intent of this requirement.
- G. The Zoning Board in issuing a special use permit may also consider potential impacts on communications, including local emergency responder telecommunications, other military or civilian radio use or telecommunications and/or interference with other transmissions, including television. The Zoning Board may require local expert testimony to this effect or other written testimony from qualified personnel.
- H. Clearing of natural vegetation shall be limited to that which is necessary for the construction, operation, and maintenance of the wind facility and as otherwise prescribed by applicable state and local laws, regulations and ordinances.
- I. Wind facilities shall comply with all applicable requirements of the Federal Aviation Administration (FAA).

#### Section XIII.2.6. Maintenance of facilities; decommissioning; abandonment:

A. All permitted wind turbines shall be maintained in good working condition. Maintenance shall include painting, structural repairs, and the integrity of security and life safety measures. A report

demonstrating compliance with an acceptable maintenance schedule shall be submitted annually to the Building Official on the anniversary of the issuance of the building permit as part of an annual safety certification process.

- B. An applicant for a wind energy facility project shall be required to post a bond of a type, of a duration, and in an amount to be determined by the Town.
- C. When a wind energy system is scheduled for decommissioning, the applicant shall notify the Town by certified mail of the proposed date of discontinued operation and plans for removal. The owner/operator shall apply for a demolition permit through the Building Office. The owner/operator shall remove the entire wind system no more than 150 days after the discontinuation.
- D. At the time of removal, the wind energy facility site shall be restored to its state from before the facility was constructed. Removal shall include all associated equipment, with appropriate disposal of any hazardous materials. Stabilization and revegetation of the site shall occur as necessary to minimize erosion. The Zoning Officer may allow the owner to leave established vegetation and possibly belowgrade foundations where they would minimize erosion and limit site disturbance.
- E. The owner/operator of a facility shall implement current industry practices during removal to ensure minimal adverse impacts on the public health, safety and welfare. Environmental impacts shall also be minimized, with appropriate notice to state regulatory agencies as required.
- F. After 12 months or one year of inoperability of any wind energy system, the Zoning Officer may reasonably determine the system to be abandoned and shall issue a notice of abandonment to the property owner. The owner shall have the right to respond to the notice within 30 days of receipt. Abandonment constitutes the voiding of any special use permit granted for a wind energy project on site.
- G. Should the property owner fail to respond to the notice of abandonment, the Zoning Officer shall allow 90 days from original receipt of the notice to accommodate complete physical removal of the offending wind energy system. If the system is not removed within 90 days, the Zoning Officer may impose the penalties allowed by ordinance, Violations and penalties, of this chapter or will seek all available legal remedies through a court of competent jurisdiction.
- H. The owner of an abandoned or decommissioned wind energy facility shall remove the turbines, towers, bases and associated structures and components. If the owner fails to do so, the Town, through the Zoning Officer, shall pursue all legal remedies available to it and/or seek satisfaction through the posted bond and/or place a lien against the property. The Town reserves the right to salvage the wind facility demolition debris to defray the cost of demolition and site stabilization.
- **Section 2.** The Town Clerk is hereby authorized to cause said changes to be made to the Town of Scituate's Code of Ordinances.

**Section 3.** This ordinance shall take effect immediately upon passage.

Attested To By:

Passed By Town Council On:

Dec. 8, 202

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Margaret M. Long, Town Clerk