

**TOWN OF SCITUATE**  
**WIND TURBINE ORDINANCE**  
**OUTLINE - DRAFT**

WHEREAS, the Town Council has recognized that in order to foster the development of the Town's wind power resources while preserving the rural characteristics of the Town, requires the implementation of the following amendment to the Town's Zoning Ordinance to established a performance-based regulatory scheme for the construction and operation of wind powered electrical generating stations.

WHEREAS, the Town Council has directed that the Zoning Ordinance be amended to allow for the siting of wind powered electrical generating stations within the Town, subject to reasonable restrictions, designed to preserve and maintain the public health and safety of all residents.

WHEREAS, the Town Council finds that wind energy is a renewable and nonpolluting energy resource and that ~~its~~ conversion to electricity will reduce dependence on nonrenewable energy resources and decrease the air and water pollution that results from the use of certain conventional energy sources. Wind energy systems also may enhance the reliability and power quality of the power grid, reduce peak power demands and help diversify the state's energy supply portfolio.

WHEREAS the Town Council recognizes that the Town of Scituate Zoning Ordinance should be amended to allow for the reasonable siting of Wind Energy Facilities and that the Zoning Board of Review, is the municipal authority best suited to consider and review the siting requirements and regulations for Wind Energy Facility applications under this Ordinance.

NOW, THEREFORE, BE IT ORDAINED THAT:

A. **District Use Regulations Amended**

Article II DISTRICT USE REGULATIONS, Section 10, "Service Industries" Table shall be amended to add, Item 9. Wind Energy Facilities, as follows:

~~{INSERT TABLE REVISIONS}~~



<u>system</u>					-
—	<u>S</u>	<u>S</u>	<u>S</u>	<u>S</u>	<u>S</u>
<u>8. Telecommunications Towers and Antennas*</u>	—	—	<u>S</u>	<u>S</u>	<u>S</u>
—	—	—	—	—	—
<u>9. Wind Powered Electrical Generating Facilities</u>	<u>S</u>	<u>S</u>	<u>S</u>	<u>S</u>	<u>S</u>
<u>*Telecommunications towers are prohibited in village overlay districts. An additional setback of 10 feet for each foot of tower height between a proposed tower or antenna and village overlay district limit shall be applied.</u>					

(Ord. of 4-23-98 (1); Ord. of 1-8-04)

**B. Special Regulations Amended**

Article IV. Special Regulations is amended as follows:

Section 16. Wind Energy Facilities

**Section 16.1**

The purpose of the Ordinance is to provide for the construction and operation of Wind Powered Electrical Generating Stations in the Town of Scituate, subject to reasonable conditions that will protect the public health, safety, and welfare.

**Section 16.2 Definitions.**

Applicant is the legal entity, including successors and assigns that files an application under this Ordinance.

Appurtenant Structure means and includes those elements or components of a Wind Powered Electrical Generating Station other than the tower, nacelle, and blades that are necessary to the proper operation and maintenance of the Wind Turbine, including but not limited to buildings, access roads, and substations.

Generating Facilities means Wind Turbines and electrical lines that are immediately associated with the Wind Turbines.

Historic Site means any site, structure, district or archaeological site which has been officially included on the National Register of Historic Places, or which is established by qualified testimony as being of historic significance.

Municipal Reviewing Authority means the Zoning Board of Review.

Nacelle means the frame and housing at the top of the Tower that encloses the gearbox and generator.

Non-Participating Landowner means any landowner, other than a Participating Landowner whose land is located within the Town of Scituate, or in an adjoining municipality adjacent to the proposed Wind Energy Facility site.

Occupied Building means a residence, school, hospital, house of worship, public library or other building that is occupied or in use as a primary residence or is customarily frequented by the public at the time when the permit application is submitted.

Participating Landowner means one or more Persons that hold title in fee or a leasehold interest with sublease rights to property on which Generating Facilities or Associated Facilities are proposed to be located pursuant to an agreement with the Applicant or an entity that has entered into an appropriate agreement with the Applicant allowing the Applicant to demonstrate the requisite right, title and interest in such property.

Person means an individual, corporation, partnership, firm, organization or other legal entity.

Residence means a building or structure, including manufactured housing, maintained for permanent or seasonal residential occupancy providing living, cooking and sleeping facilities and having permanent indoor or outdoor sanitary facilities, excluding recreational vehicles, tents and watercraft.

Shadow Flicker means alternating changes in light intensity caused by the movement of Wind Turbine blades casting shadows on the ground or a stationary object.

Sight Line Representation means a profile drawing showing prominent features, including but not limited to topography, buildings, and trees, along and in relation to a line of sight extending from an observer's eye to the lowest point visible on a proposed Tower.

Small-Unit Turbine means a Wind Energy Facility that is no more than thirty-five feet (35') tall and generates no more than 20kw of electricity and where said electricity is used exclusively for the power needs of the individual homeowner who is also the Applicant. Small-Unit Turbine Applications shall be exempt from the requirements of this Ordinance; however, Small-Unit Turbines must apply for and meet all condition of a Special Use Permit obtained from the Zoning Board of Review and may not produce more than 40 dB of noise during the day (as measured from 6:00 AM to 6:00 PM) and no more than 35 dB of noise during the evening (as measured from 6:00 PM to 6:00 AM).

Substantial Start means that construction shall be considered to be substantially commenced when any work beyond excavation, including but not limited to, the pouring of a slab or footings, the installation of piles, the construction of columns, or the placement of a Tower on a foundation has begun.

Tower means the free-standing structure on which a wind measuring or energy conversion system is mounted.

Turbine Height means the distance measured from the surface of the Tower foundation to the highest point of any turbine rotor blade measured at the highest arc of the blade.

Wind Energy Facility means a facility that uses one or more Wind Turbines to convert wind energy to electrical energy. A Wind Energy Facility includes Generating Facilities and Associated Facilities.

Wind Turbine means a system for the conversion of wind energy into electricity which is comprised of a Tower, generator, Nacelle, rotor and transformer.

### **Section 16.3 Applicability.**

16.3.1 This Ordinance applies to any Wind Energy Facility proposed for construction in the Town of Scituate after the effective date of this Ordinance.

16.3.2 A Wind Energy Facility that is the subject of an application determined to be substantially complete by the Zoning Board of Review prior to the effective date of this Ordinance shall not be required to meet the requirements of this Ordinance; provided that any physical modifications after the effective date of the Ordinance shall be subject to the permitting requirements of Section 16.6, *et seq.*

16.3.3 This Ordinance shall not apply to Small-Unit Turbines, except to require the Applicant requesting a Small-Unit Turbine to apply for a Special Use Permit for said Small-Unit Turbine from the Zoning Board of Review. The Small-Unit Turbine must also meet the definition and standards of such as set forth herein.

### **Section 16.4 Conflict and Severability.**

16.4.1 If there is a conflict between provisions in this Ordinance, the more stringent shall apply. If there is a conflict between a provision in this Ordinance and that of another provision of the Zoning Ordinance, the provision of this Ordinance shall apply.

16.4.2 The invalidity of any part of this Ordinance shall not invalidate any other part of this Ordinance provision.

**Section 16.5 Administration.**

16.5.1 Review and Approval Authority

The Zoning Board of Review is authorized to review all applications for Wind Energy Facilities and may approve, deny or approve such applications with conditions in accordance with this Ordinance.

16.5.2 Permit Required

1. No Wind Energy Facility shall be constructed, located, nor an existing Wind Energy Facility be modified, within the Town of Scituate, without a permit issued in accordance with this Ordinance. Like-kind replacements and routine maintenance and repairs shall not require a permit modification.

16.5.3 Permit Applications, Fees

A. A Wind Energy Facility permit application shall consist of the application form, application fee, and supporting documents, as described below. The municipality shall provide the application form which shall be signed by: 1) a Person with right, title and interest in the subject property; and, 2) the builder/developer of the Wind Energy Facility. The signatures shall be dated and the signatory shall certify that the information in the application is complete and correct and that the proposed facility will be constructed and operated in accordance with the standards of this Ordinance and all approval and permit conditions, if any.

B. The Application Fee shall be Five Hundred Dollars (\$500.00), which represents the cost reviewing the Application by the Zoning Official, and, the cost of advertizing of the Application. All a application fees shall be assessed and paid upon submission of the application.

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C. The application shall include all additional documents necessary to satisfy the applicable submission requirements under Section 10 of this Ordinance.

D. The Applicant shall submit its application for a Wind Energy Facility permit to the Zoning Official who shall note on the application the date on which it was received. The Applicant shall promptly notify the Zoning Official and the Zoning Board of Review of any changes the Applicant proposes to make to information contained in the application. All changes shall require proper notification, including a renewed public hearing.

E. Within ten (10) days after receiving an application, the Applicant shall be notified of a pre-application meeting, involving the Zoning Official, the Chairman of the Zoning Board of Review or his/her designee, and the Town Solicitor. The purpose of the pre-application meeting, is to will explain the Ordinance's provisions, application forms, and submission requirements. The pre-application meeting shall be had within twenty (20)

days of the receipt of an application, unless the Applicant requests a pre-application meeting with the Zoning Board of Review. The Applicant may request the pre-application meeting be held at a regularly-scheduled meeting of the Zoning Board of Review; provided, that the Applicant submits the request in the regular manner proscribed for Zoning Board agenda postings, prior to the meeting. At the pre-application meeting, the Applicant should provide photos of the proposed site and written descriptions of the proposed facility and the proposed site, including its location and lot area.

- F. Within thirty (30) days after receipt of the application by the Zoning Official, the Zoning Board of Review shall notify the Applicant in writing either that the application is complete or, if the application is incomplete, the specific additional material needed to complete the application. The Zoning Board of Review may waive any submission requirement if it issues a written finding that, due to special circumstances of the application, adherence to that requirement is not necessary to determine compliance with the standards of this Ordinance.

#### 16.5.4 Professional Services

In reviewing the application for compliance with this Ordinance, the Zoning Board of Review may retain professional services, including but not limited to those of an attorney consultant, to verify information presented by the Applicant. The attorney or consultant shall first estimate the reasonable cost of such review and the Applicant shall deposit, with the municipality, the full estimated cost, which the municipality shall place in an escrow account. The municipality shall pay the attorney or consultant from the escrow account and reimburse the Applicant if funds remain after payment.

#### 16.5.5 Expiration of Permits

Permits issued under this Ordinance shall expire within one (1) year after the date of approval unless a substantial start on construction has occurred.

#### 16.5.6 Access

The Zoning Official shall have access to the site at all times to review the progress of the work and shall have the authority to review all records and documents directly related to the design, construction and operation of the facility.

### **Section 16.6 Application Submission Requirements.**

#### 16.6.1 General Submission Requirements

- 1. A completed application form including:
  - a. The Applicant and Participating Landowner(s)' name(s) and contact information;
  - b. The address, tax map number, zone and owner(s) of the proposed facility site and any contiguous parcels owned by Participating Landowners;

- c. The tax map number, zone, current use, owner(s) and addresses of owner(s) of parcels that abut the proposed facility site or abut parcels of Participating Landowners that are contiguous with the proposed facility site;
  - d. An affirmation, signed and dated by the Applicant, that the information provided in the application is correct and that the proposed Wind Energy Facility, if approved and built, shall be constructed and operated in accordance with the standards of this ordinance and all conditions of approval, if any;
2. Receipt showing payment of application fee;
  3. A copy of a deed, easement, purchase option or other comparable documentation demonstrating that the Applicant has right, title or interest in the proposed facility site.
  4. Location map showing the boundaries of the proposed facility site and all contiguous property under total or partial control of the Applicant or Participating Landowner(s) and all property within 2500 feet of the proposed development.
  5. Description of the proposed Wind Energy Facility that includes the number and aggregate generating capacity of all Wind Turbines, the Turbine Height and manufacturer's specifications for each Wind Turbine (including but not limited to the make, model, maximum generating capacity, sound emission levels and types of overspeed controls) and a description of Associated Facilities. Certificates of design compliance obtained by the equipment manufacturers from Underwriters Laboratories, Det Norske Veritas, or other similar certifying organizations.
  6. Site plan showing the proposed location of each Wind Turbine and Associated Facilities and any of the following features located within 500 feet of any Wind Turbine: parcel boundaries, required setbacks, topographic contour lines (maximum 20-foot interval), roads, rights-of-way, overhead utility lines, buildings (identified by use), land cover, wetlands, streams, water bodies, areas proposed to be re-graded or cleared of vegetation, the location and average height of tree cover to be retained and the location, variety, planting height and mature height of proposed trees, if any.
  7. Written evidence that all applicable state and federal regulatory authorities have been notified of the pending application and the location and Turbine Height of all proposed Wind Turbines.
  8. Written evidence that the provider of electrical service to the property has been notified of the intent to connect an electric generator to the electricity grid, if such connection is proposed.
  9. Complete description of emergency and normal shutdown procedures.
  10. Photographs of existing conditions at the site. Sight Line Representations of each Wind Turbine from the nearest Occupied Building and from at least one other representative location within 500 feet of the Wind Turbine. Each Site Line Representation shall be drawn at a scale

sufficiently large to make it legible. If screening is proposed, the proposed screening device, such as trees, shrubs or fencing, shall be depicted on the drawing along with the sight line as altered by the screening. Current color photographs of the proposed site of the Wind Turbine(s) taken from viewpoints corresponding to each of the Site Line Representations shall also be submitted.

11. The application shall include structural drawings of the Tower foundation and anchoring system: a) prepared by the Wind Turbine or Tower manufacturer, b) prepared in accordance with the manufacturer's specifications or, c) prepared and stamped by a Rhode Island-licensed professional engineer.

12. Decommissioning plan.

13. Written summary of operation and maintenance procedures for the Wind Energy Facility and a maintenance plan for access roads, erosion and sedimentation controls and storm water management facilities.

14. Sound level analysis, and Shadow Flicker analysis prepared by a qualified engineer(s), which satisfy the standards of this Ordinance. Any other relevant studies, reports, certifications and approvals as may be reasonably requested by the Zoning Board of Review to ensure compliance with this Ordinance.

#### **Section 16.7 General Standards.**

##### **16.7.1 Safety Setback and Fall Zone**

The minimum safety setback and fall zone shall be 150% of the height of the Tower plus one rotor length, or the manufacturer's recommendation, whichever is greater. The minimum safety setback and fall zone shall be wholly contained within the Applicant's property.

##### **16.7.2 Noise and Sound Level**

Noise levels shall not exceed a 5 dB increase over the ambient levels at the Applicant's property boundary lines. The ambient sound shall be determined with pre-application acoustical testing of said sound levels at the property boundary lines for a period of one (1) year prior to the application, said testing to account for day and evening levels.

##### **16.7.3 Shadow Flicker**

Shadow Flicker shall not exceed ten (10) hours per year. During the time of Shadow Flicker, the Wind Energy Facility shall be shut down. The presence of Shadow Flicker Effect shall be determined with pre-application testing of said effect, measured at the property boundary lines and at locations within 2500 feet of the Wind Energy Facility for a period of one (1) year prior to the application.

##### **16.7.4 Overspeed Controls, Brakes, Ice Detection**

All Wind Turbines shall be equipped with an overspeed control system, breaking mechanism, and ice detection sensors (or heated blades, as the case may be).

16.7.5 Wildlife, Bird Migratory Patterns to remain unaffected

The Applicant shall provide infrared thermal imaging of bird activities at the proposed siting location for a period of one (1) year pre-application, and the Wind Energy Facility shall not have an unreasonable adverse effect on birds, migratory patterns, rare, threatened, or endangered wildlife, significant wildlife habitat, rare, threatened or endangered plants and rare and exemplary plant communities. In making its determination under this subsection, the Zoning Board of Review shall consider pertinent application materials and the written comments and/or recommendations, if any, of the Scituate Conservation Commission or Land Trust.

16.7.6 Electrical Components and Interconnections

All electrical components of the Wind Energy Facility shall conform to relevant and applicable local, state, and national codes.

16.7.7 Access

All ground-mounted electrical and control equipment and all access doors to a Wind Turbine shall be labeled and secured to prevent unauthorized access. A Wind Tower shall not be climbable up to a minimum of fifteen (15) feet above ground surface.

16.7.8 Co-location of External Cellular and Wireless Equipment Prohibited

To the extent that a Wind Energy Facility shall co-locate cellular or wireless communication equipment, said equipment shall be enclosed within the tower and not mounted externally.

16.7.9 Incorporation of Latest Technology in Testing Parameters and Studies

The Applicant shall incorporate the latest technology and testing parameters, including pre-application testing, into all studies and technical submissions provided in the application process to the Zoning Board of Review.

**Section 16.8 Decommissioning and Abandonment**

Prior to the issuance of a permit under this Ordinance, the Applicant shall deposit, with the municipality, the full estimated cost of dismantling and removal of the Wind energy Facility, including the cost necessary to return to the property to its pre-siting condition, which the municipality shall place in an escrow account. A Wind Energy Facility that is not generating electricity for twelve (12) consecutive months shall be deemed a discontinued use and shall be removed from the property by the Applicant within 120 days of receipt of notice from the Zoning Official, unless the Applicant provides information that the Zoning Board of Review deems sufficient to demonstrate that the project has not been discontinued and should not be removed. If, however, the Wind Energy Facility is not removed within this time period, the municipality may remove the turbine at the Applicant's expense, using the escrowed funds. These funds shall be used to pay all site reclamation costs deemed necessary and reasonable to return the site to its pre-construction condition, including the removal of roads and reestablishment of vegetation. If funds remain after the necessary expenditures, the municipality shall reimburse the Applicant.

**Section 16.9 Special Standards for Wind Energy Facilities**

16.9.1 Use of Public Roads

a. The Applicant shall identify all state and local public roads to be used within the Town of Scituate to transport equipment and parts for construction, operation or maintenance of the Wind Energy Facility.

b. The Town Engineer, or a qualified third-party engineer reasonably acceptable to both the Zoning Board of Review and the Applicant and paid for by the Applicant pursuant to Section 9.7 of the Ordinance, shall document road conditions prior to construction. The Town Engineer, or third-party engineer shall document road conditions again thirty (30) days after construction is complete or as weather permits. Any road damage caused by the Applicant or its contractors shall be promptly repaired at the Applicant’s expense.

16.9.2 Local Emergency Services

a. The Applicant shall provide a copy of the project summary and site plan to the volunteer fire department in the geographic area where the Wind Energy Facility is located. The Applicant, upon request, shall cooperate with emergency service providers to develop and coordinate implementation of an emergency response plan for the Wind Energy Facility.

b. A Wind Turbine shall be equipped with an appropriate fire suppression system to address fires within the Nacelle portion of the turbine or shall otherwise address the issue of fire safety to the satisfaction of the Zoning Board of Review.

c. The Applicant shall submit an emergency plan for all contingencies (fire, medical emergency, and the like) that incorporates coordination and consultation with the volunteer fire department(s) in the geographic area where the Wind Energy Facility is located.

d. The Applicant shall provide a record of training, including the response to and handling of emergencies, for all contractors and construction crew(s) working on the construction of the Wind Energy Facility. It is the Applicant’s responsibility to coordinate with the volunteer fire department(s) in the geographic area where the Wind Energy Facility is located to ensure adequate specialized emergency training is in place to deal with and respond effectively to, Wind Energy Facility emergencies and shall submit proof of the same to the Zoning Board of Review.

16.9.3 Property Marketability Study Required

The Applicant shall provide a study addressing the marketability of Non-Participating Landowner property values pre- and post-siting of the Wind Energy Facility.

16.9.3. Notification Area

The Notification Area shall be determined at the pre-application meeting and shall be based on the size and scope of the project...

**Section 16.10 Plan Commission Approvals**

16.10.1

The Applicant shall submit its application to the Plan Commission for Major Land Development and related subdivision regulation review including, multifamily/commercial site plan review as set forth in Zoning Ordinance Article IV, Section 13. Upon receiving Plan Commission approval(s), the same shall be submitted to and/or referred back to the Zoning Board of Review for further action on the application.

~~[INSERT PLAN COMMISSION APPROVALS/ITEMS FOR CONSIDERATION]~~

**Section 16.12 Liability Insurance**

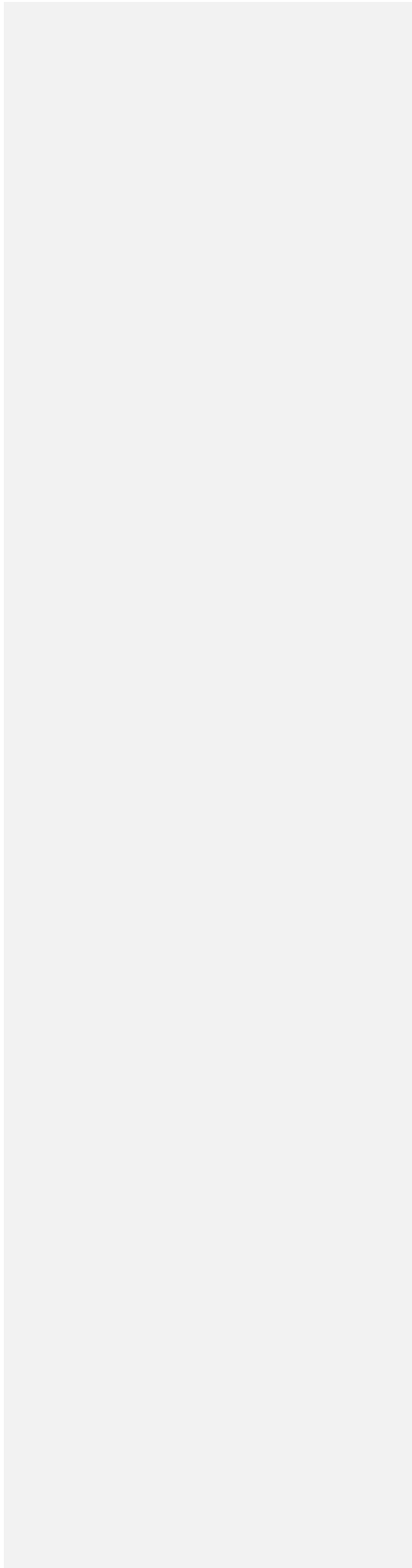
The Applicant or an Applicant's designee acceptable to the Zoning Board of Review shall maintain a current general liability policy the construction phase of the Wind Energy Facility that covers bodily injury and property damage with minimum limits of Two Millions Dollars (\$2,000,000.00) per incident/per occurrence. ~~in an amount commensurate with the scope and scale of the Facility. The Applicant shall provide the Zoning Board o Review with proof of such insurance.~~ Upon the completion of the construction and the issuance of a Certificate of Occupancy, the Applicant or operator of the Wind Energy Facility shall file and maintain with the Zoning Board of Review or its designee, a current general liability policy that covers bodily injury and property damage with minimum limits of Two Million Dollars (\$2,000,000.00) per incident/per occurrence. ~~---~~ Certificates of insurance shall be made available to the Zoning Board of Review or the Zoning Official upon request.

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**Section 16.13 Public Inquiries and Complaints**

The Applicant or its designee shall maintain a phone number and identify a responsible Person for the public to contact with inquiries and complaints throughout the life of the Wind Energy Facility. The Applicant or its designee shall make reasonable efforts to respond to the public's inquiries and complaints and shall provide written copies of all complaints and the company's resolution or response to the Zoning Board of Review or the Zoning Official upon request.

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C. **EFFECTIVE DATE**

1. **This Ordinance shall become effective upon passage.**

I hereby certify that the foregoing Ordinance was adopted by the Honorable Town Council of the Town of Scituate at a regular meeting held on the \_\_\_\_ day of \_\_\_\_\_, 2010.

Attest:

\_\_\_\_\_  
Town Clerk

\_\_\_\_\_  
President, Town Council