

Town of Shutesbury

I. Small Wind Energy Systems

1. Purposes

The purposes of this Section III.I. are to provide a permitting process for small wind energy systems (SWES) so that they may be utilized in a cost-effective, efficient, and timely manner to reduce the consumption of utility-supplied electricity; to integrate these systems into the community in a manner that minimizes their impacts on the character of neighborhoods, on property values, and on the scenic, historic, and environmental resources of the Town; and to protect health and safety, while allowing wind energy technologies to be utilized.

2. Special Permit Requirement

A. Small wind energy systems that comply with the requirements of this Section may be allowed by special permit from the Planning Board in accordance with the requirements set forth herein and the requirements for Special Permits contained in Section V.C.2. The Planning Board may grant a Special Permit only if it finds that the application complies with the provisions of this bylaw and is consistent with the applicable criteria for granting special permits. The Planning Board may waive or adjust any of the requirements outlined below, consistent with the purposes of this Section, except for the special requirements for the reduction of setbacks in 3.B.4. below.

B. A site plan shall be prepared to scale by a registered land surveyor or licensed civil engineer showing the location of the proposed SWES and any associated buildings or appurtenances, distances to all property lines and abutting residences, existing and proposed structures, existing and proposed elevations, above ground utility lines, any other significant features or appurtenances, any measures designed to mitigate the impacts of the SWES, and, at the discretion of the Planning Board:

1. Existing Conditions and Proposed Improvements Maps including, without limitation, the following scaled information for both existing conditions and proposed improvements: locus map; adjacent streets and ways; lot boundaries; location and names of owners of adjacent properties; easements and restrictions; land use districts; overlay districts (if any); topography including contours; wetlands, waterbodies, watercourses, and areas subject to flooding; soil types; vegetation; farmland; trails; structures; and unique natural site features; as well as driveways and walkways; access and egress points and distances to nearest driveways and intersections; parking/loading areas; sidewalks; landscaping; utilities; septic and water supply systems; landscape features including screening, fencing, and plantings; open space or recreational areas; lighting; natural and man-made drainage infrastructure; vehicular circulation; signs; building plans and elevations; and other information required by the Planning Board.

2. Design features which will integrate the proposed SWES into the existing landscape, maintain neighborhood character, enhance aesthetic assets and

screen objectionable features from neighbors and roadways; and control measures to prevent erosion and sedimentation during and after construction and to specify the sequence of grading and construction activities, location of temporary control measures, and final stabilization of the site.

3. If the land will be developed in more than one phase, a comprehensive plan for an entire property showing intended future development.

C. Any submittals required in this subsection 2.B. may be waived if in the opinion of the Planning Board the materials submitted are sufficient for the board to make a decision.

3. Design Requirements

A. Tower Height

On parcels of less than one acre, the tower height shall not exceed 80 feet. For parcels of one acre or more, the tower height shall not exceed 160 feet. For purposes of this Section, tower height shall be measured from the existing grade of the fixed portion of the tower to the blade tip of the turbine.

B. Setbacks

1. The minimum horizontal distance from the base of the tower structure to any property line or road right-of-way shall be the greater of either: the tower height plus 10 feet; or the "fall zone," as determined by a licensed professional engineer, plus 10 feet.
2. No part of the SWES, including guy wire and anchors, may extend closer to the property boundaries than the set back for the zoning district in the dimensional requirements in Section IV.
3. The SWES shall be a minimum of three times its tower height from existing abutting residences.
4. The Planning Board may reduce the above setback distances for the SWES in the course of its review of the application, consistent with the requirements of public health, safety, and welfare and the purposes of this Section I. If the setback distances are reduced so that the "fall zone" of the tower includes land on abutting property, such reduction shall only be permitted if the affected abutting property owner(s) executes a recorded easement allowing the fall zone onto such abutting property.

C. Access

All small wind energy systems shall be designed and maintained to securely prevent unauthorized access.

D. Color and finish

A non-reflective exterior color designed to blend with the surrounding environment is encouraged. No logos, designs, decorations, or writing shall be visible at or beyond the property line.

E. Visual Impact

The applicant shall demonstrate through project site planning and proposed mitigation that the SWES minimizes impacts on the visual character of surrounding neighborhoods and the community. This may include, but not be limited to, information regarding site selection, turbine design or appearance, buffering, screening, or lighting. All electrical conduits shall be underground.

F. Noise

Small Wind Energy System shall comply with the Massachusetts noise regulation (310 CMR 7.10).

G. Compliance with FAA requirements

All SWES towers shall also comply with applicable FAA regulations.

4. General Requirements

A. Construction

The construction, operation, maintenance and removal of wind facilities shall be consistent with all other applicable Town, State, and Federal requirements, including all applicable health, safety, construction, environmental, electrical, communications and aviation requirements.

B. Operation and Maintenance

An application for a Special Permit for a SWES shall include a plan for the general procedures for safe and effective operation and maintenance of the facility.

C. Approved Wind Turbines

Small Wind Turbine makes and models must appear on the approved list of the California Energy Commission Lists of Eligible Small Wind Turbines or New York State Energy Research and Development Qualified Wind Generators, or a similar list approved by the Commonwealth of Massachusetts if available.

D. Compliance with State Building Code

Building permit applications for small wind energy systems shall comply with the state building code and all applicable electrical codes.

E. Utility Notification

No small wind energy system shall be installed until evidence has been given that the utility company has been informed of the customer's intent to install an interconnected customer-owned generator. Off-grid systems shall be exempt from this requirement.

5. Abandonment and Removal

A. Abandonment

A SWES shall be considered to be abandoned if it is not operated for a period of two years, or if it is designated a safety hazard by the Building Inspector. If the Building Inspector determines that a SWES is abandoned, the owner shall be required to physically remove the SWES within 90 days of written notice from the Building Inspector. The owner shall have the right to respond to the written notice of abandonment within 30 days of such notice. If the owner can provide information to demonstrate that the SWES has not been abandoned, the Building Inspector may withdraw the notice of abandonment. If the property owner fails to remove the small wind energy system in accordance with the requirements of this section after 90 days of such notice and the Building Inspector has not withdrawn said notice, the Town shall have the authority to enter the property and physically remove the facility at the owner's expense.

B. Removal

"Physically remove" shall include, but not be limited to:

1. Removal of SWES, any equipment shelters, and security barriers from the subject property.
2. Proper disposal of the waste materials from the site in accordance with local and state solid waste disposal regulations.
3. Restoring the location of the SWES to its natural condition, except that any landscaping and grading shall remain in the after-condition.