Last Updated September 16, 2010

PROPOSED DRAFT SPECIAL PERMIT CRITERIA – TOWN OF WASHINGTON

§ 6.2.4 Before granting a special permit for any use requiring such permit under the provisions of this bylaw, the special permit granting authority shall find that the proposed use:

a. Is in compliance with all provisions and requirements of this bylaw; and in harmony with its general intent and purpose;

b. Is essential or desirable to the public convenience or welfare at the proposed location;

c. Will not be detrimental to adjacent uses, the natural environment or to the established or future character of the neighborhood;

d. Will not create undue traffic congestion or unduly impair pedestrian safety;

e. Will not adversely alter drainage patterns or rates of flow on adjacent properties or pose any risk of hazard to the public health, safety or general welfare on adjacent properties or elsewhere in the Town.

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WASHINGTON DRAFT SMALL WIND ENERGY SYSTEMS ZONING BYLAW

8.0 SMALL WIND ENERGY SYSTEMS

8.1 Purpose. The purpose of this subsection is to provide a permitting process for small wind energy systems (SWES) for individual homeowners so that they may be utilized in a cost-effective, efficient, and timely manner to increase the use of distributed generation; 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.

8.2 Applicability. This bylaw applies to the construction of all SWES in the Town of Washington after the effective date of this bylaw. This bylaw also applies to physical modifications to existing SWES that materially alter its number, type, location, height, or configuration.

8.3 Definitions. The following definitions shall apply:

> ***Fall Zone****:* The area on the ground from the base of a tower that forms a circle with a radius equal to the system height, including other appurtenances. The fall zone is the area within which there is a potential hazard from falling debris (such as ice) or collapsing material.
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> ***Small Wind Energy System****:* All equipment and structures utilized in connection with the conversion of wind to electricity that is intended primarily to, but not limited to, reduce on-site consumption of utility power. This includes, but is not limited to a tower and associated control or conversion electronics and one or more wind turbines which have a rated nameplate capacity of 60 KW or less.
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> ***System Height:*** The height from the existing grade of the fixed portion of the tower to the blade tip of the turbine at the highest point of its rotation or the highest point of the SWES.

8.4 Use Regulations. One or more SWES may be allowed on a lot, only as an accessory use, after the issuance of a special permit in accordance with this section and § 6.2 Special Permits.

8.5 Design Requirements. The following design requirements shall apply to all SWES:

8.5.1. System Height: The maximum permitted system height on any lot is 200 feet.

8.5.2. Setbacks:

a. The minimum horizontal distance from the base of any tower structure to any property line or road right-of-way shall be 150% of the system height.

b. The minimum horizontal distance from the base of any tower structure to any existing residence not occupied by the SWES applicant shall be the greater of 300 feet or 300% of the system height.

c. No part of the SWES, including guy wire and anchors, may extend closer to the property boundaries than the setbacks set forth in § 5.1 "Residential Usages" or § 5.2. "Non-Residential Usages".

d. The special permit granting authority may reduce the setback distances specified in § 8.5.2.(2)(a), 8.5.2.(2)(b), or 8.5.2.(2)(c) for any SWES if the special permit granting authority finds that such reduction is consistent with the requirements of public health, safety, and welfare and the purposes of this section. If the setback distances are reduced so that the "fall zone" of the tower includes land on abutting and adjacent property, such reduction shall only be permitted if the affected property owner(s) executes a recorded easement allowing the fall zone onto such property(s).

e. Setbacks need not be cleared of trees or other vegetation.

8.5.3. Access: All SWES shall be designed and maintained to prevent unauthorized access.

8.5.4. Appearance: A non-reflective exterior color designed to blend with the surrounding environment shall be used on all SWES. No decorations or lights shall be allowed, unless required by the Federal Aviation Administration (FAA).

8.5.5. 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 to the extent practical. This may include, but not be limited to:

a. Information regarding site selection, turbine design or appearance, buffering, screening, or lighting.

b. To the extent practical, electrical conduits shall be underground.

c. No logos, designs, or other signage shall exceed two square feet in total area.

8.5.6. Noise: Small Wind Energy System shall comply with the Massachusetts noise regulation (310 CMR 7.10) and most current related DEP Policies or Guidelines. Noise analysis may be required to be performed by a professional engineer.

8.5.7. Compliance with FAA requirements: All SWES shall comply with applicable FAA regulations.

8.5.8. Tower Location: Any SWES shall be subject to the Wetlands Protection Act G.L. c. 131 §40 and subject to approval of the Conservation Commission, where applicable.

8.5.9. Shadow/Flicker: All SWES shall be sited in a manner that does not result in significant shadow/flicker impacts on occupied buildings. Significant shadow/flicker impact is defined as more than thirty (30) hours of shadow/flicker per year on an occupied building. If significant shadow/flicker impacts occur, the owner of the SWES shall reduce the operation of the SWES or undertake other mitigation measures in order to decrease the time of shadow/flicker on any occupied building to less than thirty (30) hours per year.

8.6 General Requirements. The following general requirements shall apply to all SWES:

8.6.1. Compliance: The construction, operation, maintenance and removal of SWES shall be consistent with all applicable town, State, and Federal requirements, including all applicable health, safety, construction, environmental, electrical, communications, aviation, and state building codes.

8.6.2. Operation and Maintenance: The applicant shall maintain the SWES in good condition and operate the SWES in a safe manner.

8.6.3. Approved Wind Turbines: Proposed 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 one becomes available.

8.6.4. Utility Notification: All grid connected installations must comply with the Uniform Standards for Interconnecting Distributed Generation. Off- grid systems shall be exempt from this requirement.

8.7 SWES Special Permit Finding. Before granting a SWES special permit, the special permit granting authority shall find that the proposed SWES complies with the Special Permit Criteria specified in § 6.2.4.

8.8 Application Process. Applications for a SWES special permit shall be filed in accordance with § 6.2 Special Permits and this section. An application for a SWES special permit must be prepared by a small energy professional or a licensed engineer and contain the following:

8.8.1. Site Plan with the following information:

a. Property lines and physical dimensions of the applicant's property
b. Location, dimensions, and types of existing major structures on the applicant's property and adjacent property only if the property is part of the fall zone.
c. Location of the proposed SWES, foundations, guy anchors and associated equipment
d. Setback requirements as outlined in this ordinance
e. The right-of-way of any public road that is contiguous with the property
f. Any overhead utility lines

g. Tower foundation blueprints or drawings
h. Tower blueprints or drawings
i. SWES specifications, including manufacturer, system blueprints, model, rotor diameter, tower height, tower type, braking mechanisms, safety features, and nameplate generation capacity.
j. SWES that will be connected to the electric grid shall include a copy of the application for interconnection with the electric utility provider.
k. Sound level analysis prepared by the SWES manufacturer or qualified engineer, if required.
l. Electrical components in sufficient detail to allow for a determination that the manner of installation conforms to all applicable state building codes and electrical codes.
m. Evidence of compliance or non-applicability with FAA regulations
n. List of abutters to the applicant's property

8.8.2. Operation & Maintenance Plan: A plan which sets forth the general procedures for safe and effective operation and maintenance of the SWES including guy wires, anchors, support structures, and lubricants.

8.8.3. SWES Removal Plan: A plan for the removal of the SWES once it has reached the end of its useful life or is abandoned.

8.8.4. Additional information as requested by the special permit granting authority.

8.9 Technical Review. The special permit granting authority may hire an expert, at the applicant's expense and in accordance with M.G.L. c. 44 § 53G to assist the special permit granting authority with the technical review of application materials.

8.10 Abandonment and Removal. A SWES shall be considered to be abandoned if it is not operated for a period of one year 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 180 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 SWES in accordance with the requirements of this section after 180 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 SWES at the owner's expense. The term physically remove shall include, but not be limited to: 1) removal of the SWES, any equipment shelters, and security barriers from the subject property; and 2) proper disposal of the waste materials from the site in accordance with local and state solid waste disposal regulations.

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