

**Introduction:** In the fall of 2005, Camden Hills Regional HS received ZBA Special Exception approval to erect a temporary tower to measure wind data in the expectation that a permanent wind generating tower may be viable on the site. This request prompted a discussion of how the Rockport Land Use Ordinance should be revised to provide adequate site standards for this evolving technology. The following standards are proposed to be added to a new Section 812 and definitions to Section 300.

**Note to Reader:** Proposed additions are underlined and ~~proposed deletions are strikethrough~~.

**812 – Small Wind Energy Systems**

**812.1 Purpose:**

The intent of the Section is to regulate the placement, construction, and modification of small wind energy systems while allowing the safe, effective, and efficient use of this technology.

**812.2 Siting Requirements for Small Wind Energy Systems**

- 1. Small wind energy systems shall be a permitted use in District 908 with special exception approval
- 2. Small wind energy systems shall also be a permitted use in all Districts on school parcels that contain a minimum of ten (10) acres with special exception approval.
- 3. Small wind energy systems in District 908 shall be located only on parcels that contain a minimum of 130,000 sq. ft.
- 4. Each parcel shall be limited to one small wind energy system.
- 5. Small wind energy system towers shall not exceed a maximum height of 100 ft. except school parcels which shall not exceed a maximum height of 140 ft.
- 6. Small wind energy system towers shall not be lighted unless required by the Federal Aviation Administration (FAA).

**812.3 Setback Requirements**

- 1. Small wind energy systems shall be set back a distance equal to one hundred and ten (110) percent of the height of the tower and blade length from adjoining property lines.
- 2. Small wind energy systems shall be set back a distance equal to one hundred and fifty (150) percent of the height of the tower and blade length from any structure on adjoining properties.

**812.3 Sound Requirements**

- 1. An automatic braking, governing or feathering system shall be required to prevent uncontrolled rotation.
- 2. Prior to approval, the applicant shall provide documentation from the manufacturer that the wind energy system will not produce noise levels in excess of the following standards, as measured at the closet property line.
- 3. After approval and installation of the wind energy system, the Planning Office shall perform sound measurements at the closest property line to determine ambient and operating decibel levels

<u>Ambient reading without wind tower</u>	<u>maximum permitted reading with wind tower</u>
<u>45</u>	<u>55</u>
<u>50</u>	<u>56</u>
<u>55</u>	<u>61</u>
<u>60</u>	<u>62</u>
<u>65</u>	<u>66</u>

4. Upon complaint of an abutter, ambient and maximum permitted decibel measurements shall be performed by an agent designated by the Planning Office. The report shall be submitted to the Planning Office for review. The fee for this service shall be paid by the complainant unless the maximum permitted decibel level has been exceeded in which case the owner of the system shall pay the fee.
5. If the maximum decibel readings are exceeded, the installation shall be considered a nuisance under the provisions of Section 801.6 of this Ordinance.
6. The nuisance violation must be corrected within 90 days from notification of the violation and if the violation cannot be corrected, the wind energy system shall be removed or relocated.

#### **812.4 Special Exception Approval**

An applicant for a small wind generating system is required to have Special Exception approval under the provisions of Section 703.3 prior to a permit being issued by the Code Officer.

#### **812.5 Permitting Requirements**

1. In addition to the application and supporting documentation required by Section 602, the applicant for a small wind energy system shall provide the following information to the Code Officer;
2. A site plan of the property showing the location of the proposed system, existing and proposed structures, and any other significant features on the property.
3. Structural drawings of the wind tower, base pad, footings, and guy wire prepared by the manufacturer or a professional engineer.
4. Drawings and specifications of the generator, hub, and blade, prepared by the manufacturer or a professional engineer.
5. Photographs of the proposed site and the specific small wind energy system to be installed.

**These definitions will be added to Section 300 of the Rockport Land Use Ordinance**

**Small Wind Energy System:** A wind energy conversion system consisting of a tower, wind turbine, and associated control conversion electronics which will be used primarily to produce electrical power.

**System Height:** The tower height plus the blade radius from the hub.

**Hybrid System:** An energy system that uses more than one technology to produce energy (for example a wind-solar system)

**Tower:** The structure on which the wind energy system is mounted.

**Tower Height:** The height above grade of the fixed portion of a tower, excluding the wind turbine.

**Turbine:** The parts of the wind system including the blades, generator and tail.