

**AN ORDINANCE REGULATING SMALL  
WIND ENERGY SYSTEMS AND  
COMMERCIAL WIND ENERGY SYSTEMS**

**SECTION 1. INTRODUCTION**

**1. Authority.** This ordinance is adopted pursuant to authority conferred by Sections 60.22, 61.34 and 66.0401 of the Wisconsin Statutes.

**2. Purpose.** The purpose of this ordinance is to preserve and protect the public health and safety and to promote the orderly land use and development of the Town of Greenville.

**3. Scope.** This ordinance establishes minimum requirements for small wind energy systems and commercial wind energy systems as defined herein.

**SECTION 2. DEFINITIONS**

**1. Total Height** means the distance measured from ground level to the blade extended at its highest point.

**2. Small Wind Energy System** means a wind energy conversion system consisting of a wind turbine, a tower and associated control or conversion electronics which will be used primarily to reduce on-site consumption of utility power. A small wind energy system shall not exceed a rated capacity of \_\_\_\_\_kWh .

**3. Windmill Rotor** means that portion of the windmill which includes the blades, hub and shaft.

**4. Windmill Tower** means the supporting structure on which the rotor, turbine and accessory equipment are mounted.

**5. Commercial Wind Energy System** means a wind energy conversion system consisting of more than one wind turbine and tower, a wind energy conversion system which will be used primarily for off-site consumption of power or a wind energy system in excess of \_\_\_\_\_ kW.

**SECTION 3. APPLICABILITY**

The requirements of this ordinance shall apply to all small wind energy systems and commercial wind energy systems proposed after the effective date of this ordinance. Wind energy systems for which a required permit has been properly issued prior to the effective date of this ordinance shall not be required to meet the requirements of this ordinance; provided, however, that any such system shall be

installed and functioning within 24 months of the date of the permit. Any system that has been installed but not used for two consecutive years may not be subsequently used without meeting the requirements of this ordinance. No preexisting system shall be altered in any manner that would increase the degree of nonconformity with the requirements of this ordinance and no alterations shall be made to a nonconforming preexisting system during its life which exceed 50% of its fair market value. If such system is destroyed or damaged to the extent of more than 50 % of its fair market value at the time of destruction or damage, it shall not be reconstructed except in conformity with this ordinance.

#### **SECTION 4. SMALL WIND ENERGY System REQUIREMENTS**

**1. Permitted Locations.** A small wind energy system is permitted in any zoning district.

**2. Minimum Lot Size.** No wind energy system shall be erected on any lot less than one acre in size.

**3. Total Height.** For property sizes between one acre and two acres, the total height shall not exceed 60 feet. For property sizes between two and five acres, the total height shall not exceed 80 feet. For property sizes greater than five acres, the total height shall not exceed 100 feet.

**4. Location.** No small wind energy system shall be located in any front or side yard.

#### **5. Setbacks.**

a. **Property lines.** A small wind energy system shall be set back from the nearest property line, public road right-of-way and communication and electrical line not less than 1.1 times its total height.

a. **Inhabited Structures.** A small wind energy system shall be set back from the nearest inhabited building not less than 1.5 times its total height.

#### **6. Design Standards.**

a. **Monopole or Freestanding Design.** The design of the small wind energy system shall be of a monopole or freestanding design without guy wires.

b. **Minimum Blade Height.** The minimum height of the lowest extent of a turbine blade shall be 30 feet above the ground or 30 feet above any structure or obstacle within 100 feet from the tower.

- c. **Access.** No tower shall have a climbing apparatus within 12 feet of the ground. All access doors or access ways to towers and electrical equipment shall be lockable.
- d. **Noise.** No small wind energy system shall exceed 60 dBA as measured at the property line or 50 dBA as measured at the nearest neighboring inhabitable building.
- e. **Visual Appearance.** Small wind energy systems shall be finished in a rust-resistant, non-obtrusive finish and color that is non-reflective. No small wind energy system shall be lighted unless required by the FAA. No advertising signs of any kind or nature whatsoever shall be permitted on any small wind energy system.
- f. **Electrical Interconnections.** All electrical interconnection or distribution lines shall be underground and comply with all applicable codes and public utility requirements.
- g. **Signal Interference.** Efforts shall be made to site small wind energy systems to reduce the likelihood of blocking or reflecting television and other communication signals. If signal interference occurs, both the small wind energy system owner and individual receiving interference shall make reasonable efforts to resolve the problem. No small wind energy system shall cause permanent and material interference with television or other communication signals.
- h. **Overspeed Controls.** Every small wind energy system shall be equipped with both manual and automatic overspeed controls.

**7. Permit Applications.** Application for a small wind energy system shall include the following information.

- a. **Site plan** to scale showing the location of the proposed small wind energy system and the locations of all existing buildings, structures and property lines along with distances.
- b. **Elevations** of the site to scale showing the height, design and configuration of the small wind energy system and the height and distance to all existing structures, buildings, electrical lines and property lines.
- c. **Standard drawings** and an engineering analysis of the systems tower including weight capacity.
- d. **A standard foundation** and anchor design along with soil conditions and specifications for the soil conditions at the site.

- e. **Specific information** on the type, size, rotor material, rated power output, performance, safety and noise characteristics of the system including the name and address of the manufacturer, model and serial number.
- f. **Emergency and normal shutdown procedures.**
- g. **A line drawing** of the electrical components of the system in sufficient detail to establish that the installation conforms to all applicable electrical codes.
- h. **Evidence** that the provider of electrical service of the property has been notified of the intent to install an interconnected electricity generator unless the system will not be connected to the electricity grid.

## **SECTION 5. COMMERCIAL WIND ENERGY SYSTEM REQUIREMENTS**

**1. Permissible Locations.** A commercial wind energy system may be permitted as a conditional use (special exception) in the General Agricultural District.

**2. Minimum Parcel Size.** No commercial wind energy system shall be erected on any parcel less than 10 acres in size.

**3. Total Height.** The total height of a commercial wind energy system shall not exceed 150 feet.

**4. Setbacks.**

- a. **Property Lines.** A commercial wind energy system shall be set back from the nearest property line and public road right-of-way not less than 500 feet.
- b. **Other uses.** No commercial wind energy system shall be located within 1320 feet of a platted subdivision, park, church, school or playground.

**5. Design Standards.** A commercial wind energy system shall comply with the design standards set forth in subparagraphs 6(a) through (e) Section 4.

**6. Permit Applications.** A commercial wind energy system shall comply with the permit application requirements set forth in subparagraphs (a) through (h), Section 5.

## **SECTION 6. NON USE**

1. Any small wind energy system or commercial wind energy system which complies with the terms of this ordinance which is not used for two years, excluding repairs, shall be removed within the following six months. Failure to remove the system shall be deemed a violation of this ordinance.

2. Any small wind energy system or commercial wind energy system which is non-conforming and which is not used for one year, excluding repairs, shall be removed within the following six months. Failure to remove the system shall be deemed a violation of this ordinance.