

Zoning Ordinance  
FOR THE  
TOWN OF LYNDON

SHEBOYGAN COUNTY, WISCONSIN

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PRINTING OF 2007

## CHAPTER 15 SMALL WIND ENERGY SYSTEMS

Small Wind Energy Systems

### 15 SMALL WIND ENERGY SYSTEMS

#### **Section 1: Title**

This Ordinance is entitled “Town of Lyndon Small Wind Energy System Ordinance”.

#### **Section 2: Authority**

This ordinance is adopted pursuant to authority granted by:

For counties: Wis. Stat. § 59.69 and 66.0401

For towns and villages: Wis. Stat. § 60.61 or 60.62 and 62.23 (7), or 60.22 (3), 66.0401

#### **Section 3: Purpose**

The purpose of this ordinance is to:

1. Oversee the permitting of small wind energy systems.
2. Preserve and protect public health and safety without significantly increasing the cost or decreasing the efficiency of small wind energy system (per Wis. Stat. §66.0401)

#### **Section 4: Definitions**

In this ordinance:

1. “Administrator” means the Town of Lyndon Planning or Zoning Administrator.
2. “Board” means the Town of Lyndon Board of Supervisors.
3. “Meteorological tower” (met tower) is defined to include the tower, base plate, anchors, guy cables and hardware, anemometers (wind speed indicators), wind direction vanes, booms to hold equipment anemometers and vanes, data logger, instrument wiring, and any telemetry devices that are used to monitor or transmit wind speed and wind flow characteristics over a period of time for either instantaneous wind information or to characterize the wind resource at a given location.
4. “Owner” shall mean the individual or entity that intends to own and operate the small wind energy system in accordance with this ordinance.
5. “Rotor diameter” means the cross sectional dimension of the circle swept by the rotating blades.
6. “Small wind energy system” means a wind energy system that
  - (a) is used to generate electricity;
  - (b) has a nameplate capacity of 100 kilowatts or less; and
  - (c) has a total height of 170 feet or less.
7. “Total height” means the vertical distance from ground level to the tip of a wind generator blade when the tip is at its highest point
8. “Tower” means the monopole, freestanding, or guyed structure that supports a wind generator.
9. “Wind energy system” means equipment that converts and then stores or transfers energy from the wind into usable forms of energy (as defined by Wis. Stat. 660403 (1) (m). This equipment includes any base, blade, foundation, generator, nacelle, rotor, tower, transformer, vane, wire, inverter, batteries or other component used in the system.
10. “Wind generator” means blades and associated mechanical and electrical conversion components mounted on top of the tower.

#### **Section 5: Standards**

For exclusive agricultural zoning, gas or electric utility uses not requiring authorization under § 196.491(3) shall be conditional uses and are uses that are consistent with agricultural use.

A small wind energy system shall be a conditional use in all zoning districts subject to the following requirements:

1. Setbacks: A wind tower for a small wind system shall be set back a distance equal to its total height from:
  - (a) the public road right of way, unless written permission is granted by the governmental entity with jurisdiction over the road;
  - (b) any overhead utility lines, unless written permission is granted by the affected utility;
  - (c) all property lines, unless written permission is granted from the affected land owner or neighbor.
2. Access:

- (a) All ground mounted electrical and control equipment shall be labeled or secured to prevent unauthorized access.
  - (b) The tower shall be designed and installed so as to not provide step bolts or a ladder readily accessible to the public for a minimum height of 8 feet above the ground.
3. Electrical Wires: All electrical wires associated with a small wind energy system, other than wires necessary to connect the wind generator to the tower wiring, the tower wiring to the disconnect junction box, and the grounding wires shall be located underground.
4. Lighting: A wind tower and generator shall not be artificially lighted unless such lighting is required by the Federal Aviation Administration.
5. Appearance, Color, and Finish: The wind generator and tower shall remain painted or finished the color or finish that was originally applied by the manufacturer, unless approved in the building permit.
6. Signs: All signs, other than the manufacturer's or installer's identification, appropriate warning signs, or owner identification on a wind generator, tower, building, or other structure associated with a small wind energy system visible from any public road shall be prohibited.
7. Code Compliance: A small wind energy system including tower shall comply with all applicable state construction and electric codes, and the National Electrical Code.
8. Utility notification and interconnection: Small wind energy systems that connect to the electric utility shall comply with the Public Service Commission of Wisconsin's Rule 119, "Rules for Interconnecting Distributed Generation Facilities".
9. Met towers shall be permitted under the same standards, permit requirements, restoration requirements, and permit procedures as a small wind energy system.
10. Audible Noise:
  - (a) Audible noise due to wind energy system operations shall not exceed fifty (50) dBA for any period of time, when measured at any residence, school, hospital, church or public library existing on the date of approval of any Wind Energy System Siting Permit.
  - (b) In the event audible noise due to wind energy system operations contains a steady pure tone, such as a whine, screech, or hum, the standards for audible noise set forth in the subparagraph (a) of this subsection shall be reduced by five (5) dBA. A pure tone is defined to exist if the one-third (1/3) octave band sound pressure level in the band, including the tone, exceeds the arithmetic average of the sound pressure levels of the two (2) contiguous one-third (1/3) octave bands by five (5) dBA for center frequencies between one hundred and sixty (160) Hz and four hundred (400) Hz, or by fifteen (15) dBA for center frequencies less than or equal to one hundred and twenty-five (125) Hz.
  - (c) In the event the ambient noise level (exclusive of the development in question) exceeds the applicable standard given above, the applicable standard shall be adjusted so as to equal the ambient noise level. The ambient noise level shall be expressed in terms of the highest whole number sound pressure level in dBA, which is succeeded for more than five (5) minutes per hour. Ambient noise levels shall be measured at the exterior of potentially affected existing residences, schools, hospitals, churches, and public libraries. Ambient noise level measurement techniques shall employ all practical means of reducing the effect of wind-generated noise at the microphone. Ambient noise level measurements may be performed when the wind velocities at the proposed project site are sufficient to allow wind turbine operation, provided that the wind velocity does not exceed thirty (30) mph at the ambient noise measurement location.
  - (d) Any noise level falling between two whole decibels shall be the lower of the two.
  - (e) In the event the noise levels resulting from the wind energy system exceed the criteria listed above, a waiver to said levels may be granted by the Board provided that the following has been accomplished:
    1. Written consent from the affected property owners has been obtained stating that they are aware of the wind system and the noise limitations imposed by this Ordinance, and that consent is granted to allow noise levels to exceed the maximum limits otherwise allowed; and
    2. If the applicant wishes the waiver to apply to succeeding owners of the property, a permanent noise impact easement has been recorded in the (Office of the Town/County Register of Deeds) which describes the benefited and burdened properties and which

advises all subsequent owners of the property that noise levels in excess of those permitted by this Ordinance may exist on or at the burdened property.

#### **Section 6: Permit Requirements**

1. Building Permit:  
A building permit shall be required for the installation of a small wind energy system.
2. Documents:  
The building permit application shall be accompanied by a plot plan which includes the following:
  - (a) Property lines and physical dimensions of the property;
  - (b) Location, dimensions, and types of existing major structures on the property;
  - (c) Location of the proposed wind system tower;
  - (d) "The right-of-way" of any public road that is contiguous with the property;
  - (e) Any overhead utility lines;
  - (f) Wind system specifications, including manufacturer and model, rotor diameter, tower height, tower type (freestanding or guyed);
  - (g) Gower foundation blueprints or drawings;
  - (h) Tower blueprint or drawing;
3. Fees:  
The application for a building permit for a small wind energy system must be accompanied by the fee requirement for a building permit for a Permitted Accessory Use.
4. Expiration.  
A permit issued pursuant to this ordinance shall expire if:
  - (a) The small wind energy system is not installed and functioning within 24-months from the date the permit is issued; or,
  - (b) The small wind energy system is out of service or otherwise unused for a continuous 12-month period.

#### **Section 7: Abandonment**

1. A small wind energy system that is out-of-service for a continuous 12-month period will be deemed to have been abandoned. The Administrator may issue a Notice of Abandonment to the owner of a small wind energy system that is deemed to have been abandoned. The Owner shall have the right to respond to the Notice of Abandonment within 30 days from Notice receipt date. The Administrator shall withdraw the Notice of Abandonment and notify the owner that the Notice has been withdrawn if the owner provides information that demonstrates the small wind energy system has not been abandoned.

#### **Section 8: Building Permit Procedure**

1. An Owner shall submit an application to the Administrator for a building permit for a small wind energy system. The application must be on a form approved by the Administrator and must be accompanied by two copies of the plot plan identified in Section 6 (2) above.
2. The Administrator shall issue a permit or deny the application within one month of the date on which the application is received.
3. The Administrator shall issue a building permit for a small wind energy system if the application materials show that the proposed small wind energy system meets the requirements of this ordinance.
4. If the application is approved, the Administrator will return one signed copy of the application with the permit and retain the other copy with the application.
5. If the application is rejected, the Administrator will notify the applicant in writing and provide a written statement of the reason why the application was rejected. The applicant may appeal the Administrator's decision pursuant to Chapter 68 Wis. Statutes. The applicant may reapply if the deficiencies specified Administrator are resolved.
6. The Owner shall conspicuously post the building permit on the premises so as to be visible to the public at all times until construction or installation of the small wind energy system is complete.

#### **Section 9: Violations**

It is unlawful for any person to construct, install, or operate a small wind energy system that is not in compliance with this ordinance or with any condition contained in a building permit issued pursuant to this ordinance. Small wind energy systems installed prior to the adoption of this ordinance are exempt.

#### **Section 10: Administration and Enforcement**

1. This ordinance shall be administered by the Administrator or other official as designated.

2. The Administrator may enter any property for which a building permit has been issued under this ordinance to conduct an inspection to determine whether the conditions stated in the permit have been met.
3. The Administrator may issue orders to abate any violation of this ordinance.
4. The Administrator may issue a citation for any violation of this ordinance.
5. The Administrator may refer any violation of this ordinance to legal counsel for enforcement.

**Section 11: Penalties**

1. Any person who fails to comply with any provision of this ordinance or a building permit issued pursuant to this ordinance shall be subject to enforcement and penalties as stipulated in ch. 11, section 11, "Building Permit Required" of the Town of Lyndon Zoning Code.