

# SAWYER COUNTY WIND ENERGY SYSTEM ORDINANCE

Adopted December 20, 2007

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## SECTION 1.0 PURPOSE, AUTHORIZATION AND INTERPRETATION

To oversee the permitting of wind energy systems for the purpose of preserving and protecting public health and safety; preserving and protecting natural resources such as forests, flowages, lakes, rivers, streams and wetlands; to allow for the orderly development of land, protect property values and the quality of life of nearby property owners; and esthetic conditions within the County; without significantly increasing the cost of, or decreasing the efficiency of wind energy systems. This ordinance is adopted pursuant to the authority granted by Wis. Stat. secs. 59.69, 59.694 and 66.0401. This ordinance does not repeal, abrogate, annul, impair, or interfere with any existing ordinance.

## SECTION 2.0 DEFINITIONS

1. **ADMINISTRATOR:** The Sawyer County Zoning Administrator, Deputy Zoning Administrator or other Zoning Department employee designated by the Sawyer County Zoning Committee.
2. **COMMITTEE:** The Sawyer County Zoning Committee.
3. **FLICKER or SHADOW FLICKER:** The effect that results when the shadow cast by the rotating blade of a wind energy system moves across a fixed point.
4. **NONPARTICIPATING PROPERTY:** Real property on which either there is no large wind system or there is a large wind system that is in a different wind farm system than another large wind system.

**5. OWNER:** The person or entity that owns a wind system.

**6. PARTICIPATING PROPERTY:** Property on which a large wind system is located and that is in the same wind farm system as another large wind system.

**7. TOTAL HEIGHT:** The vertical distance from ground level to the tip of a wind turbine blade when the tip is at its highest point.

**8. WIND ENERGY SYSTEM:** Equipment that converts and then stores or transfers energy from the wind into usable forms of energy and includes any base, blade, foundation, generator, nacelle, rotor, tower, transformer, turbine, vane, wire, or other component used in the system.

**9. WIND ENERGY SYSTEM (types):**

(a) **LARGE WIND ENERGY SYSTEM:** A wind energy system that has a nameplate capacity of more than 50 kilowatts and one wind tower or turbine.

(b) **SMALL WIND ENERGY SYSTEM:** A wind energy system that has a nameplate capacity of 50 kilowatts or less and one wind tower and turbine.

(c) **PERSONAL WIND ENERGY SYSTEM:** A wind energy system that has a nameplate capacity of 10 kilowatts or less, one wind tower and turbine, a maximum height of 35 feet, is not visible from adjacent properties, produces no measurable noise and complies with all other zoning regulations.

(d) **WIND FARM SYSTEM:** A wind energy system that includes more than one wind tower.

**10. WIND TOWER:** The monopole, freestanding, or guyed structure than supports a wind turbine generator.

### **SECTION 3.0 STANDARDS**

**1. Structure.** A wind tower must be of monopole construction to the extent practicable. If monopole construction is not practicable, a wind tower must be of freestanding construction to the extent practicable. If monopole or freestanding construction is not practicable, a wind tower may be guyed.

**2. Location. A WIND ENERGY SYSTEM may be located on County property if approval is granted by the COMMITTEE and any other committee of the Sawyer County Board of Supervisors with jurisdiction over that property and the approval of the Sawyer County Board of Supervisors.**

**(a) LARGE WIND ENERGY SYSTEMS and WIND FARM SYSTEMS may be located only in areas that are zoned Agricultural One (A-1), Agricultural Two (A-2), Forestry One (F-1) and in the Industrial One (I-1) zone district provided that the parcel has a minimum size of five acres.**

**(b) SMALL WIND ENERGY SYSTEMS and PERSONAL WIND ENERGY SYSTEMS may be permitted in all zone districts.**

**3. Setbacks.**

**(a) A WIND ENERGY SYSTEM shall not be located closer than 1.1 of its total height from:**

- i. Lot lines,**
- ii. public road right-of-way,**
- iii. power or telephone line right-of-way (buried or above ground),**
- iv. pipeline right-of-way or**
- v. driveway/access easement.**

**(b) A WIND ENERGY SYSTEM shall not be located closer than 300' from:**

- i. The ordinary high-water mark of navigable waters and**
- ii. public parks.**

**(c) Reduced setbacks may be allowed for 3. (a)(i)-(v) and (b)(ii) above if written permission is granted by the affected property owner for a specific lesser setback and recorded with the Sawyer County Register of Deeds.**

**(d) The WIND ENERGY SYSTEM in a LARGE WIND ENERGY SYSTEM and each WIND ENERGY SYSTEM in a WIND FARM SYSTEM shall be setback at least 300' from the residence of a NONPARTICIPATING PROPERTY unless written permission is granted by the affected property owner for a specific lesser setback and recorded with the Sawyer County Register of Deeds.**

**4. Spacing and Density.** A WIND ENERGY SYSTEM must be separated from every other WIND ENERGY SYSTEM, to include those on adjacent properties and those owned by others, by a sufficient distance so that it does not interfere with another WIND ENERGY SYSTEM.

**5. Height.** The total height of a WIND ENERGY SYSTEM shall not exceed 150 feet unless a greater height is approved by the COMMITTEE.

**6. Clearance.** The vertical distance from ground level to the tip of a wind turbine blade when the blade is at its lowest point must be at least 35 feet, except for PERSONAL WIND ENERGY SYSTEMS.

**7. Access.** A WIND TOWER, including any climbing aids, must be secured against unauthorized access by means of a locked barrier or security fence.

**8. Electrical Wires.** All electrical wires associated with a WIND ENERGY SYSTEM, other than wires necessary to connect the wind turbine to its base and to overhead collection lines, must be located underground.

**9. Code Compliance.** All WIND ENERGY SYSTEMS must comply with the National Electrical Code, the National Electrical Safety Code, and all applicable state and federal codes and regulations.

**10. Lighting.** A WIND TOWER and turbine may not be artificially lighted unless such lighting is required by the Federal Aviation Administration. If lighting is required, the lighting must comply with FAA minimum requirements and, whenever possible, be at the lowest intensity allowed, avoid the use of strobe or other intermittent white lights, and use steady red lights. If more than one lighting alternative is available, the alternative that causes the least visual disturbance must be used.

**11. Equipment.** The electrical disconnect and rotor braking system shall be located under the sweep area of the blade assembly.

**12. Appearance, Color, and Finish.** The exterior surface of any visible components of a WIND ENERGY SYSTEM must be a non-reflective, neutral color. WIND TOWERS and turbines in a WIND FARM SYSTEM that are located within one mile of each other on a PARTICIPATING PROPERTY must be of uniform design, including tower type, color, number of blades, and direction of blade rotation.

**13. Signs.** No wind turbine, tower, building, or other structure associated with a WIND ENERGY SYSTEM may be used to advertise or promote any product or service. No word or graphic representation, other than appropriate warning signs and owner or landowner identification, may be placed on a wind turbine, tower, building, or other structure associated with a WIND ENERGY SYSTEM so as to be visible from any public road.

**14. Noise.** The noise generated by the operation of a WIND ENERGY SYSTEM may not exceed the ambient noise level by more than [5 dB(A)] as measured at any point on property adjacent to the parcel on which the wind energy system is located. The noise level generated by the operation of a wind system will be determined during the investigation of a noise complaint by comparing the sound level measured when the wind generator blades are rotating to the sound level measured when the wind generator blades are stopped.

**15. Flicker or Shadow Flicker.** The owner of a WIND ENERGY SYSTEM must take such reasonable steps as are necessary to prevent, mitigate, and eliminate shadow flicker on any occupied structure on a NONPARTICIPATING PROPERTY.

#### **SECTION 4.0 GENERAL REQUIREMENTS**

**1. Conditional Use Permit.** A conditional use permit is required to be approved by the COMMITTEE for all WIND ENERGY SYSTEMS. Application must be on a form provided by the Administrator. The Committee may, by unanimous approval, delegate its authority to the Administrator to issue permits for PERSONAL WIND ENERGY SYSTEMS only. The Committee, by a majority vote of its members, may withdraw this authorization at any time.

**2. Fees.**

(a) The application for conditional use permit for a SMALL WIND ENERGY SYSTEM and a LARGE WIND ENERGY SYSTEM not included in a WIND FARM SYSTEM and the application for a conditional use permit for a PERSONAL WIND ENERGY SYSTEM must be accompanied by the fee required for a conditional use permit.

(b) The application for a conditional use permit for a WIND FARM SYSTEM must be accompanied by the fee required for a conditional use permit, plus a \$100 processing fee for each WIND ENERGY SYSTEM included in the wind farm system.

**3. Site Plan – LARGE WIND ENERGY SYSTEMS and WIND FARM SYSTEMS.**

a (a) The OWNER must provide a site plan and pay the fee for a site plan review if such review is required by the Committee.

(b) The site plan shall contain at a minimum the following information:

- i. Name, corporate status, address, and telephone number of the person signing the application and certifying that the application is true and correct.
- ii. Name, corporate status, address, and telephone number of the system owner.
- iii. Name, signature, corporate status, address, and telephone number of the landowner.
- iv. Legal description of the property and a description of a benchmark on the property, including its elevation expressed in feet and tenths of feet.
- v. Number, description, and design specifications of each WIND ENERGY SYSTEM, including the manufacturer, model, capacity, blade length, height, lighting, and total height of each WIND SYSTEM.
- vi. Blueprints or drawings that have been approved by a registered professional engineer showing a cross section, elevation, and diagram for any tower and tower foundation.
- vii. Scale diagram showing proposed location of aboveground and underground electrical wiring, access routes, landscaping, and fencing.
- viii. Statement describing any hazardous materials that will be used on the property and how those materials will be stored.
- ix. Location of any above ground utility lines within or adjacent to the property.
- x. Existing buildings and structures within one-half mile of the property, including any church, hospital, public library, residence, and school.
- xi. Any sewer service planning area and incorporated municipal boundary within one-half mile of the property.
- xii. Copy of a Certificate of Authority and Environmental Assessment, if applicable, from the Wisconsin Public Service Commission.
- xiii. Statement that each wind energy system will be installed in compliance with manufacturer's specifications, along with a copy of the manufacturer's specifications.
- xiv. Statement that the owner will construct and operate each wind energy system, or wind farm system in compliance with all applicable local, state, and federal codes, laws, orders, regulations, and rules.

xv. Statement signed by the landowner acknowledging that the landowner is financially responsible if the owner fails to reclaim the site as required by SECTION 7.0 ABANDONMENT AND RESTORATION (4) and that any removal and reclamation costs incurred by the County will become a lien on the property and may be collected from the landowner in the same manner as property taxes.

xvi. Any additional information (e.g., environmental assessment etc.) that may be required by the Committee.

#### 4. Site Plan – SMALL WIND ENERGY SYSTEMS.

(a) The owner must provide a site plan and pay the fee for a site plan review if such a review is required by the Committee.

(b) The site plan shall contain at a minimum the following information:

i. Name, address, telephone number and signature of the property owner.

ii. Legal description of the property.

iii. Number, description, and design specifications of the wind tower including the manufacturer, model, capacity, blade length, height, lighting, and total height.

iv. Blueprints or drawings that have been approved by a registered professional engineer or system installer, showing a WIND ENERGY SYSTEM diagram and height.

v. A diagram of convenient scale showing: the proposed location of the WIND ENERGY SYSTEM, aboveground and underground electrical wiring; system setback distance to property lines, overhead utility lines within or adjacent to the property and all existing and proposed buildings and structures within a distance equal to 150% of the height of the tower.

vi. Copy of a Certificate of Authority and Environmental Assessment, if required by the Wisconsin Public Service Commission.

vii. Statement that each WIND ENERGY SYSTEM shall be installed in compliance with manufacturer's specifications, along with a copy of the manufacturer's specifications.

viii. Statement that the owner will construct and operate the system in compliance with all applicable local, state, and federal codes, laws, orders, regulations, and rules.

ix. Statement signed by the landowner acknowledging that the landowner is financially responsible if the owner fails to reclaim the site as required by SECTION 7.0 ABANDONMENT AND RESTORATION (4) and that any removal and reclamation costs incurred by the County will become a lien on the property and may be collected from the landowner in the same manner as property taxes.

x. Any additional information that may be required by the Committee.

**5. Site Plan – PERSONAL WIND ENERGY SYSTEMS.**

**(a) The site plan shall contain at a minimum the following information:**

- i. Name, address, telephone number and signature of the property owner.**
- ii. Legal description of the property.**
- iii. Description and design specifications of system including the manufacturer, model, capacity, blade length, height, lighting, and total height.**
- iv. A diagram of convenient scale showing that the proposed location of the WIND ENERGY SYSTEM meets those structure setbacks that are the greater of those required in the Sawyer County Zoning Ordinance or 1.1 times the TOTAL HEIGHT of the system.**
- v. Copy of a Certificate of Authority and Environmental Assessment, if required by the Wisconsin Public Service Commission.**
- vi. Statement that the WIND ENERGY SYSTEM shall be installed in compliance with manufacturer's specifications, along with a copy of the manufacturer's specifications.**
- vii. Statement that the owner will construct and operate the system in compliance with all applicable local, state, and federal codes, laws, orders, regulations, and rules.**

**6. Expiration. A permit issued pursuant to this ordinance expires if the WIND ENERGY SYSTEM is not installed and functioning within 2 years from the date the permit is approved by the Committee. The Committee may extend the permit in response to a written request made prior to its expiration if the Committee determines that the request is reasonable under the circumstances.**

**7. Financial Assurance.**

**(a) LARGE WIND ENERGY SYSTEMS and WIND FARM SYSTEMS. The owner must provide a performance bond, completion bond, or other financial assurance of at least \$20,000 for each LARGE WIND ENERGY SYSTEM to guarantee the performance of the restoration requirement set forth in Section 6.0 ABANDONMENT AND RESTORATION.**

**(b) SMALL WIND ENERGY SYSTEMS. The Committee may at its discretion require financial assurance.**

**(c) PERSONAL WIND ENERGY SYSTEMS. The Committee may at its discretion require financial assurance.**

**SECTION 5.0 CONDITIONAL USE PERMIT PROCEDURE**



1. A person may submit an application to the Administrator for a conditional use permit for a WIND ENERGY SYSTEM. The application must be on a form approved by the Administrator and must be accompanied by 10 copies of a scaled drawing, other descriptive information sufficient to enable the Committee to determine whether the requirements of this ordinance will be satisfied, and such other information as may be specified on the application form. The Administrator will review the application materials for completeness and may request that the applicant provide additional

information. When the Administrator determines that the application is complete, the Administrator will forward it to the Committee.

2. The Committee will conduct a hearing on the application after the publishing of a class 2 hearing notice.

3. The Committee may grant a conditional use permit if it determines that the requirements of this ordinance are met and that granting the permit will not unreasonably interfere with the orderly land use and development plans of the County. The Committee may in writing and with findings of fact supported by documentation and/or testimony:

(a) Include conditions in the permit and waive or reduce the burden of this ordinance if, in the Committee's judgment, such actions meet and serve the purpose of this ordinance (SECTION 1.0 PURPOSE, AUTHORIZATION AND INTERPRETATION).

(b) The Committee may consider the following factors when setting conditions (These factors shall not be considered to be all inclusive):

- i. Proposed ingress and egress.
- ii. Proximity to transmission lines to link the system to the electric power grid.
- iii. Number of WIND TOWERS and their location.
- iv. Nature of land use on adjacent and nearby properties.
- v. Location of other WIND ENERGY SYSTEMS in the surrounding area.
- vi. Surrounding topography.
- vii. Proximity to residential structures, residential zoning districts, or areas identified for future residential use.
- viii. Design characteristics that may reduce or eliminate visual obtrusiveness.
- ix. Possible adverse effects on migratory birds, raptors, and other animals and wildlife.

- x. Possible adverse effects of stray voltage, interference with broadcast signals, shadow effect, and noise.
- xi. Impact on the orderly development, property values, and esthetic conditions within the County.
- xii. Effect on public and private roads.
- xiii. Recommendation of the Town Board.
- xiv. Any other factors that are relevant to the proposed system.

4. The installation and continued operation of a WIND ENERGY SYSTEM is contingent upon compliance with any conditions that are set by the Committee, including fees and licenses.

5. The Committee's decision, the reason for its decision, and any conditions will be recorded in the Committee's minutes. The Administrator will issue a conditional use permit or inform the applicant that the conditional use permit has been denied.

6. Any person or persons jointly or severally aggrieved by any decision of the Committee, or any taxpayer, or any officer, department board or bureau of the County may commence an action with the Sawyer County Board of Appeals to review the Committee's decision in whole or in part, within thirty (30) days after the filing of the decision in the office of the Committee.

#### **SECTION 6.0 ABANDONMENT AND RESTORATION**

1. A WIND ENERGY SYSTEM that is out of service for a continuous 12-month period will be deemed to have been abandoned and the Administrator may issue a Notice of Abandonment to the owner. If, within 30 days of receipt of a Notice of Abandonment, the owner provides the Administrator with written information showing that the system has not been abandoned, the Administrator will withdraw the Notice.

2. An owner shall provide the Administrator with a written Notice of Termination of Operations if the operation of a WIND ENERGY SYSTEM is terminated. Such notice shall be provided within 30 days of system operation termination.

3. A WIND ENERGY SYSTEM must be removed within 3 months of the mailing date of the Notice of Abandonment unless the Administrator withdraws the Notice or within 6 months of providing Notice of

Termination of Operations. The Notice of Abandonment shall be mailed by certified mail to the address of the property owner as listed by Land Records Department. The owner must remove all:

- (a) Wind turbines, aboveground improvements, and outdoor storage;
- (b) Foundations, pads, and underground electrical wires and reclaim the site to a depth of 4 feet below the surface of the ground; and
- (c) Hazardous material from the property and dispose of the hazardous material in accordance with Federal and State law.

4. If the owner fails to remove a WIND ENERGY SYSTEM and reclaim the site, the County may remove or cause the removal of the system and the reclamation of the site. The County may recover the cost of removal and reclamation from any financial assurance provided by the owner pursuant

to SECTION 4.0 GENERAL REQUIREMENTS (6.). Any removal or reclamation cost incurred by the County that is not recovered from the owner will become a lien on the property where the removal or reclamation takes place and may be collected from the landowner in the same manner as property taxes.

**SECTION 7.0 SIGNAL INTERFERENCE** The owner of a WIND ENERGY SYSTEM must take such reasonable steps as are necessary to prevent, eliminate, or mitigate any interference with the transmission and reception of electromagnetic communications, such as microwave, radio, telephone, or television signals. If within 12 months of the installation of a WIND ENERGY SYSTEM, adjacent property owners can justify to the Committee that the system is causing unreasonable interference with such signals as received on their properties, the Committee shall give the system owner not more than 3 months to correct the interference problem. Should the Committee be convinced at the end of that 3-month period that the interference has not been adequately abated, the Committee may order the removal of the system.

**SECTION 8.0 VIOLATIONS** It is unlawful for any person to construct, install, maintain, modify, or operate a WIND ENERGY SYSTEM that is not in compliance with this ordinance or with any condition contained in a conditional use or land use permit issued pursuant to this ordinance.

**SECTION 9.0 ADMINISTRATION AND ENFORCEMENT**

1. This ordinance shall be administered by the Administrator.

2. The Administrator may enter any property for which application has been made for a conditional use or land use permit under this ordinance to verify the information on the application and to determine

whether the conditions stated in the issued permit have been met. The Sheriff or the Sheriff's designee may enter any property for which a land use permit has been issued under this ordinance to conduct an inspection to determine whether there is any violation of SECTION 3.0 STANDARDS (14).

3. The Administrator may issue orders to abate any violation of this ordinance. The Sheriff or the Sheriff's designee may issue an order to abate a violation of SECTION 3.0 STANDARDS (14).

4. The Administrator may issue a citation for any violation of this ordinance. The Sheriff or the Sheriff's designee may issue a citation for any violation of SECTION 3.0 STANDARDS (14).

5. The Administrator may refer any violation of this ordinance to the Corporation Counsel for enforcement. The Sheriff may refer a violation of SECTION 3.0 STANDARDS (14) to Corporation Counsel for legal action.

6. Nothing in this section shall be construed to prevent the County from using any other lawful means to enforce this ordinance.

#### **SECTION 10.0 PENALTIES**

1. **LARGE WIND ENERGY SYSTEM or a WIND FARM SYSTEM.** Any person who fails to comply with any provision of this ordinance or of a conditional use permit or a land use permit issued pursuant to this ordinance shall, upon conviction thereof, forfeit at least \$500 but not more than \$1,000 for each offense. A separate offense shall be deemed committed on each day during which a violation occurs or continues. Any person who is in default of payment of a forfeiture or costs may be imprisoned in the County jail until the forfeiture or costs are paid, except that the period of imprisonment may not exceed 30 days.

2. **SMALL WIND ENERGY SYSTEM or PERSONALWIND ENERGY SYSTEM.** Any person who fails to comply with any provision of this ordinance or of a conditional use permit or a land use permit issued pursuant to this ordinance shall, upon conviction thereof, forfeit at least \$100 but not more than \$500 for each offense. A separate offense shall be deemed committed on each day during which a violation occurs or continues. Any person who is in default of payment of a forfeiture or costs may be imprisoned in the County jail until the forfeiture or costs are paid, except that the period of imprisonment may not exceed 10 days.

3. The failure of any employee, official, or officer of the County to perform any official duty imposed by this code will not subject the employee, official, or officer to the penalty imposed for violation of this code unless a penalty is specifically provided.

**SECTION 11.0 RELATIONSHIP TO OTHER ORDINANCES**

This ordinance does not abrogate, annul, impair, interfere with, or repeal any existing ordinance.

**SECTION 12.0 SEVERABILITY** The provisions of this ordinance are severable, and the invalidity of any section, subdivision, paragraph, or other part of this ordinance shall not affect the validity or effectiveness of the remainder of the ordinance.