

**Wind Energy Conversion System Ordinance of Otter Tail County
Effective February 15, 2011**

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THE COUNTY BOARD OF COMMISSIONERS OF OTTER TAIL COUNTY, MINNESOTA ORDAINS:

I. GENERAL PROVISIONS

1. Title:

This ordinance from the date of its passage shall be known as the Wind Energy Conversion System Ordinance of Otter Tail County, Minnesota.

2. Purpose:

This Ordinance is established to regulate the installation and operation of Wind Energy Conversion Systems (WECS) within Otter Tail County not otherwise subject to siting and oversight by the State of Minnesota under the Minnesota Power Plant Siting Act (MS 216E.01-216E.18) and/or the Wind Energy Conversion System Act (MS 216F.01-216F.09).

3. Statutory Authorization:

This Ordinance is adopted pursuant to the authorization and policies contained in Minnesota Statutes Chapter 394 and 216F.

4. Legal Authority/Jurisdiction:

The provisions of this Ordinance shall apply to the unincorporated areas of Otter Tail County lying outside the incorporated areas of a City.

5. Compliance:

The use of any land for wind energy development shall be in full compliance with the terms of this Ordinance and any other applicable regulations.

6. Enforcement:

The Land & Resource Management Administrator is responsible for the administration and enforcement of this Ordinance. Any violation of the provisions of this ordinance or failure to comply with any of its requirements shall constitute a misdemeanor and shall be punishable as defined by law. Each 24 hour day that a violation continues shall constitute a separate offense.

In the event of a violation or a threatened violation of this Ordinance, the County Board and/or the Administrative Officer, in the addition to other remedies may institute appropriate actions or proceedings to prevent, restrain, correct or abate such violations or threatened violations, and it shall be the duty of the County Attorney to institute such action. This will include, but not be limited to, actions for injunctive relief before a court of competent jurisdiction.

7. Interpretation:

In their interpretation and application, the provisions of the Ordinance shall be held to be the minimum requirements and shall be liberally construed in favor of the governing body and shall not be deemed a limitation or repeal of any other powers granted by State Statutes.

8. Savings Clause/Severability:

All permits issued under this Ordinance are permissive only and shall not release the permittee from any liability or obligation imposed by Minnesota Statutes, Federal Law, or local Ordinances relating thereto. In the event any section, clause, portion or provision of this Ordinance shall be found contrary to law by a court of competent jurisdiction from whose final judgment no appeal has been taken, such provision shall be considered void. All other provisions of this Ordinance shall continue in full force and effect as though the voided provision had never existed.

9. Abrogation and Greater Restrictions:

It is not intended by this Ordinance to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this ordinance imposes greater restrictions, the provisions of this Ordinance shall prevail.

10. Owner Liable:

In addition to any other person or persons involved in a violation or threatened violation of this Ordinance, the owner of record of any property falling under the jurisdiction of this ordinance shall be responsible both criminally and civilly for any construction, alteration, excavation, decommissioning, or any other activity occurring upon his property which is contrary to the provisions of this Ordinance.

11. Right to Access:

All employees of the Otter Tail County Land and Resource Management Office, members of the County Board of Commissioners, Planning Commission and Board of Adjustment, in the performance of their duties, shall have free access on all land included within the jurisdiction of this Ordinance.

II. DEFINITIONS

1. Aggregated Project: Aggregated projects are those which are developed and operated in a coordinated fashion, but which have multiple entities separately owning one or more of the individual WECS within the larger project. Associated infrastructure such as power lines and transformers that service the facility may be owned by a separate entity but are also included as part of the aggregated project.

2. Bluff: A topographic feature such as a hill, cliff, or embankment having all of the following characteristics:

- A. Part or all of the feature is located in a Shoreland Area.
- B. The slope rises at least 25 feet (ft.) above the ordinary high water level (OHWL).
- C. The grade of the slope from the toe of the bluff to a point 25 ft. or more above the OHWL level averages 30% or greater.
- D. The slope must drain toward the waterbody.

3. Bluff Impact Zone (BIZ): A bluff and land located within 30 ft. from the top of a bluff.

4. Commercial WECS: A WECS equal to or greater than 100 kW in total name plate generating capacity.

5. Fall Zone: The area, defined as the furthest distance from the tower base, in which a guyed tower will collapse in the event of a structural failure. This area is less than the total height of the structure.

6. Feeder Line: Any power line that carries electrical power from one or more wind turbines or individual transformers associated with individual wind turbines to the point of interconnection with the electric power grid, in the case of interconnection with the high voltage transmission systems the point of interconnection shall be the substations serving the WECS.

7. Meteorological Tower (MET): For the purposes of this Wind Energy Conversion System Ordinance, Meteorological Towers are those towers which are erected primarily to measure wind speed and directions plus other data relevant to siting WECS. Meteorological Towers do not include towers and equipment used by airports, the Minnesota Department of Transportation, or other similar applications to monitor weather conditions.

8. Micro-WECS: Micro-WECS are WECS of 1 kW nameplate generating capacity or less and utilizing supporting towers of 40 feet or less.

9. Non-Commercial WECS: A WECS of less than 100 kW in total name plate generating Capacity.

10. Non-Conformity: Any legal use, structure or parcel, of land established before the effective date of this Ordinance, which does not conform to use restrictions of a particular zoning district.

11. Ordinary High Water Level (OHWL): The boundary of public waters and wetlands, and shall be an elevation delineating the highest water level which has been maintained for a sufficient period of time to leave evidence upon the landscape, commonly that point where the natural vegetation changes from predominantly aquatic to predominantly terrestrial. For water courses, the OHWL is the elevation of the top of the bank of the channel. For reservoirs and flowages, the OHWL is the operating elevation of the normal summer pool.

12. Property Line: The boundary line of the area over which the entity applying for a WECS permit has legal control for the purposes of installation of a WECS. This control may be attained through fee title ownership, easement, or other appropriate contractual relationship between the project developer and landowner.

13. Public Conservation Lands: Land owned in fee title by State or Federal agencies and managed specifically for conservation purposes, including but not limited to State Wildlife Management Areas, State Parks, State Scientific and Natural Areas, Federal Wildlife Refuges and Waterfowl Production Areas. For the purposes of this section public conservation lands will also include lands owned in fee title by non-profit conservation organizations. Public conservation lands do not include private lands upon which conservation easements have been sold to public agencies or non-profit conservation organizations.

14. Rotor Diameter: The diameter of the circle described by the moving rotor blades.

15. Shore Impact Zone (SIZ): Land located between the Ordinary High Water Level of a public water and a line parallel to it at a setback of 50% of the structure setback (see Section III.4. of the Shoreland Management Ordinance (SMO)), but not less than 50'. For Ag land the SIZ is 50 ft. from the OHWL (see Section IV.4. of the SMO).

16. Shoreland: Land located within the following distances from public water: 1,000 ft. from the OHWL of a lake, pond or flowage; and 300 ft. from a river or the landward extent of a flood plain designated by Ordinance on a river, whichever is greater. The limits of shorelands may be reduced whenever the waters involved are bounded by topographic divides which extend landward from the waters for lesser distances and when approved by the Commissioner of the Department of Natural Resources.

17. Substations: Any electrical facility designed to convert electricity produced by wind turbines to a voltage greater than 35,000 volts (35 kV) for interconnection with high voltage transmission lines shall be located outside of the road right of way.

18. Toe of Bluff: The point on a bluff where there is, as visually observed, a clearly identifiable break in the slope, from gentler to steeper slope above. If no break in the slope is apparent, the toe of the bluff shall be determined to be the lower end of a 50 ft. segment, measured on the ground, with an average slope exceeding 18%.

19. Top of Bluff: The point on a bluff where there is, as visually observed, a clearly identifiable break in the slope, from steeper to gentler above. If no break in the slope is apparent, the top of the bluff shall be determined to be the upper end of a 50 ft. segment, measured on the ground, with an average slope exceeding 18%.

20. Total Height: The highest point, above ground level, reached by a rotor tip or any other part of the WECS.

21. Tower: Towers include vertical structures that support the electrical generator, rotor blades, or meteorological equipment.

22. Tower Height: The total height of the WECS exclusive of the rotor blades.

23. Transmission Line: Those electrical power lines that carry voltages of at least 41,600 volts (41.6 kV) and are primarily used to carry electric energy over medium to long distances rather than directly interconnecting and supplying electric energy to retail customers.

24. Wind Energy Conversion System (WECS): An electrical generating facility comprised of one or more wind turbines and accessory facilities, including but not limited to: power lines, transformers, and substations that operate by converting the kinetic energy of wind into electrical energy, and MET. The energy maybe used on-site or distributed into the electrical grid.

25. Wind Turbine: A wind turbine is any piece of electrical generating equipment that converts the kinetic energy of blowing wind into electrical energy through the use of airfoils or similar devices to capture the wind.

III. PROCEDURES

All WECS and MET require a Site Permit. Site Permits, Conditional Use Permits and Variances shall be applied for and reviewed under the appropriate procedures established within the County's Shoreland Management Ordinance, except where noted below.

1. The Application for all WECS and MET shall include the following information:

- A. The names of project applicant.
- B. The name of the project owner.
- C. The legal description, parcel number, and E-911 address of the project.
- D. A description of the project including: number, type, name plate generating capacity, tower height, rotor diameter, and total height of all wind turbines and means of interconnecting with the electrical grid (written confirmation from the affected electrical utility company required).
- E. Site layout, including the location of property lines, wind turbines, electrical wires, interconnection points with the electrical grid, and all related accessory structures. The site layout shall include distances and be drawn to scale.

- F. Decommissioning Plan (see Section VII.2.H.).
- G. Documentation of land ownership or legal control of the property.
- H. The longitude, latitude, and height, above ground level in feet.
- I. Written verification from the MN Department of Transportation, Aeronautics Division, indicating registration with their Office.

2. The Application for Commercial WECS shall also include:

- A. The latitude and longitude of individual wind turbines.
- B. A USGS topographical map, or map with similar data, of the property and surrounding area, including any other WECS within 10 rotor diameters of the proposed WECS.
- C. Location of wetlands, scenic, and natural areas (including bluffs) within 1,320 feet of the proposed WECS.
- D. FAA Permit Application.
- E. Location of all known Communications Towers within 2 miles of the proposed WECS.
- F. Engineer’s certification (see Section VII.1.A.).
- G. Description of potential impacts on nearby WECS and wind resources on adjacent properties.

IV. AGGREGATED PROJECTS

Aggregated Projects of less than 5 MW may jointly submit a single Application and be reviewed under joint proceedings, including notices, hearings, reviews and as appropriate approvals. Permits will be issued and recorded separately. Joint Applications will be assessed fees as one project.

V. DISTRICT REGULATIONS

	<u>Non-Commercial WECS</u>	<u>Commercial WECS</u>	<u>MET</u>
Shoreland			
Lakes – All Classes	P	N	P
Rivers – All Classes	P	N	P
Non-Shoreland	P	C	P

P = Permitted Use
C = Conditional Use
N = Prohibited Use

VI. SETBACKS

<u>From:</u>	<u>Non-Commercial WECS</u>	<u>Commercial WECS</u>	<u>MET</u>
Dwelling	total height + 10'	750'	total height + 10'
Property Line	total height + 10'	1.1 x total height	total height + 10'
Road ROW	1 x total height	1 x total height	1 x total height
Other ROW	1 x total height	1 x total height	1 x total height
Public Conservation Land	600'	600'	600'
Wetlands	100'	600'	100'
Other WECS	5 rotor diameters	5 rotor diameters	5 rotor diameters
Shore Impact Zone (SIZ)	total height + 10'	not applicable	total height + 10'
Bluff Impact Zone (BIZ)	total height + 10'	not applicable	total height + 10'

VII. REQUIREMENTS AND STANDARDS

1. Safety Design Standards:

- A. Engineering Certification — For all Commercial WECS, the manufacture's engineer or another qualified engineer shall certify that the turbine, foundation and tower design of the WECS is within accepted professional standards, given local soil and climate conditions.
- B. Clearance — Rotor blades or airfoils must maintain at least 12 feet of clearance between their lowest point and the ground.
- C. Warnings – For all Commercial WECS, a sign or signs shall be posted on the tower, transformer and substation warning of high voltage.

For all guyed towers, visible and reflective objects, such as plastic sleeves, reflectors, or tape, shall be placed on the guy wire anchor points and along the outer innermost guy wires up to a height of 10 feet above the ground. In addition, two highly visible cable balls must be attached to each of the outside guy wires. Visible fencing shall be installed around anchor points of guy wires.

2. Standards:

- A. Total Height — Non-Commercial WECS shall have a total height of less than 200 feet.
- B. Tower Configuration — All wind turbines, which are part of a Commercial WECS, shall be installed with a tubular, monopole type tower.
- C. Color and Finish — All wind turbines and towers that are part of a WECS shall be white, grey or another non-obtrusive color. Blades may be black in order to facilitate deicing. Finishes shall be matt or non-reflective.

All MET must be painted in seven equal alternating bands of aviation orange and white; beginning with orange at the top of the tower, and ending with orange at the base.

- D. Lighting — Lighting, including lighting intensity and frequency of strobe, shall adhere to but not exceed requirements established by Federal Aviation Administration permits and regulations. Red strobe lights are preferred for night-time illumination to reduce impacts on migrating birds. Red pulsating incandescent lights should be avoided.
- E. Other Signage — The manufacturer's or owner's company name and/or logo may be placed upon the nacelle, compartment containing the electrical generator, of the WECS.
- F. Feeder Lines — All communications and feeder lines, equal to or less than 34.5 kV in capacity, installed as part of a WECS shall be buried where reasonably feasible. Feeder lines installed as part of a WECS shall not be considered an essential service.

- G. Waste Disposal — Solid and Hazardous Wastes, including but not limited to crates, packaging materials, damaged or worn parts, as well as used oils and lubricants, shall be removed from the site promptly and disposed of in accordance with all applicable Local, State and Federal regulations.
- H. Discontinuation and Decommissioning — A WECS shall be considered a discontinued use after 6 months without energy production, unless a plan is developed and submitted to the County Land & Resource Management Administrator, outlining the steps and schedule, for returning the WECS to service. All WECS and accessory facilities shall be removed to four feet below ground level and within 90 days of the discontinuation of use.

All WECS shall have a Decommissioning Plan outlining the anticipated means and cost of removing WECS at the end of their serviceable life or upon becoming a discontinued use. The cost estimates shall be made by a competent party; such as a Professional Engineer, a contractor capable of decommissioning or a person with suitable expertise or experience with decommissioning. The plan shall also identify the financial resources that will be available to pay for the decommissioning and removal of the WECS and accessory facilities.

- I. Orderly Development — Upon issuance of a Conditional Use Permit, all Commercial WECS shall notify the Environmental Quality Board Staff of the project location and details on forms specified by the Environmental Quality Board.
- J. Noise — All WECS shall comply with Minnesota Rules 7030 governing noise.
- K. Electrical Codes and Standards — All WECS and accessory equipment and facilities shall comply with the National Electrical Code and other applicable standards.
- L. Federal Aviation Administration— All WECS shall comply with FAA standards and permits.
- M. Interference — The applicant shall minimize or mitigate interference with electromagnetic communications, such as radio, telephone, microwaves, or television signals cause by any WECS. The applicant shall notify all communication tower operators within two miles of the proposed WECS location upon application to the County for permits. No WECS shall be constructed so as to interfere with County or Minnesota Department of Transportation microwave transmissions.

3. Avoidance and Mitigation of Damages to Public Infrastructure:

- A. Roads — The applicants shall:
 - 1. Identify all County, City or Township roads to be used for the purpose of transporting WECS, substation parts, cement, and/or equipment for construction, operation or maintenance of the WECS and obtain applicable weight and size permits from the impacted road authority(ies) prior to construction.
 - 2. Conduct a pre-construction survey, in coordination with the impacted local road authority(ies) to determine existing road conditions. The survey shall include photographs and a written agreement to document the condition of the public facility.

3. Be responsible for restoring or paying damages as agreed to by the applicable road authority(ies) sufficient to restore the road(s) and bridge(s) to preconstruction conditions.

B. Drainage System — The applicant shall:

Be responsible for immediate repair of damage to public drainage systems stemming from construction, operation or maintenance of the WECS.

C. Dust Control – The applicant shall:

Be responsible for appropriate dust control while the project is under construction and/or decommissioning.

4. Non-Conforming Uses:

A. If a non-conforming use ceases to be used and properly maintained for a period of twelve consecutive months or is changed to a conforming use, any subsequent use shall meet the requirements of the zoning district wherein located.

B. A non-conforming use shall not be moved to any other part of its site or to another site where it would still constitute a non-conforming use.

5. Exemptions:

A Wind Turbine or WECS may be erected, exempt from the provisions of this Ordinance, provided that either construction has begun and/or all appropriate permits have been applied for prior to the effective date of this Ordinance.

6. Effective Date: February 15, 2011