

Wind Energy Conversion System Ordinance

For

Red Lake County, Minnesota

August 14, 2012

1. Purpose

The purpose of the ordinance is to provide a regulatory scheme for the construction and operations of Wind Energy Conversion Systems (WECS) in Red Lake County, subject to reasonable restrictions, which will help to preserve public health and safety. These regulations are in addition to Minnesota Statutes, chapter 216F, Wind Energy Conversion Systems, as amended.

2. Statutory Authority and Policy

This ordinance is adopted pursuant to authority granted by Minnesota Statutes 216F as well as planning and zoning enabling legislation in 394 and 462 as amended.

Wind power is new to Red Lake County, however the county sees this new technology as a means of economic development and growth for residents of the county and the United States as a whole. Electrical demand continues to grow and we, as a society, must find new, economical and environmentally friendly means of meeting this increasing demand.

The following standards for the control of WECS in Red Lake County have been promulgated to provide protection against noise pollution and create a standard of safe construction and living conditions for residents who may be living near these facilities in the future.

3. General Provisions and Definitions

Subd. 1 Jurisdiction and Standards:

The provisions of this ordinance shall apply to all WECS constructed in Red Lake County outside the incorporated limits of municipalities. Non-commercial WECS and meteorological towers of less than 200 feet shall be exempt from the conditional use process. All WECS and meteorological towers over 200 feet must apply for a conditional use permit.

Subd. 2 Compliance

The use of any land for the establishment, expansion or management of a WECS shall comply with the provisions of this ordinance and the laws of the State of Minnesota.

Subd. 3. Administration, Enforcement and Fees.

The Red Lake County Environmental Services Administrator (Administrator) is responsible for the administration and enforcement of this ordinance. The Red Lake County Board of Commissioners may establish by resolution, application, permit and other such fees as they deem necessary.

Any violation of the provisions of this ordinance or failure to comply with any of its requirements, including violations of conditions and safeguards established in connection with grants of variances or conditional uses, shall constitute a misdemeanor, and shall be punishable as defined by law.

The Administrator may enter any property where a commercial or non-commercial WECS or meteorological tower has been constructed or for which a conditional use or zoning permit has been issued under this ordinance to conduct an inspection to determine whether the conditions stated in this ordinance and on the conditional use permit have been met.

The Administrator may issue orders to abate any violation of this ordinance by providing a written notice to the WECS owner by certified mail. The Administrator may issue a citation for any violation of this ordinance and/or may refer any violation of this ordinance to the Red Lake County Attorney for further action and enforcement.

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

Subd. 4. Interpretation.

In the interpretation and application, the provisions of this ordinance shall be held to be minimum requirements and shall be liberally construed in favor of the public health, safety and welfare of the citizens of Red Lake County, by providing for the commonly approved practices used in the construction, operations and management of WECS.

Subd. 5. Severability.

If any section, clause, provision or portion of this Ordinance is adjudged unconstitutional or invalid by a Court of competent jurisdiction, the remainder of this Ordinance shall not be affected thereby.

Subd. 6. Abrogation and Greater Restrictions.

It is not the intent of this Ordinance to repeal, abrogate, or impair any existing ordinance, rules or statute. However, when this Ordinance is inconsistent with any other ordinance, rule or statute, the ordinance, rule or statute which impose the greater restriction shall prevail.

Subd. 7. Amendment.

This Ordinance may be amended whenever the public necessity and the general welfare require such amendment by following the procedures specified in this subdivision. The County Board of Commissioners may amend the procedures, standards, requirements, charts, and other provisions

of this Ordinance after holding such public hearings as it deems necessary. At least one (1) public hearing shall be required with notice published in the official county newspaper at least ten (10) days before the public hearing. In addition, the Board shall give written notice of any changes and/or amendments of the official control(s) to the governing bodies of all townships and municipalities located within the county.

Subd. 8. Definitions

As used in this ordinance, the following terms shall have the meanings indicated:

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 aggregate project.

Commercial WECS. A WECS of equal or greater than 100 kilowatts (KW) in total name plate generating capacity.

County. Shall mean Red Lake County, Minnesota.

Dwelling. Shall mean a building suitable for affording shelter for human beings on a permanent or temporary basis.

FAA. Shall mean the Federal Aviation Administration.

Fall Zone. The area, defined as the furthest distance from the tower base, in which a tower will collapse in the event of a structural failure. This area is not less than the total height of the structure.

Feeder Line. Power lines that transport electrical power from one or more wind turbines to the point of interconnection with a high voltage transmission line.

High-voltage transmission line. A conductor of electric energy and associated facilities designed for and capable of operations at a nominal voltage of 100 kilovolts or more and is greater than 1,500 feet in length.

Hub Height. Shall mean, when referring to a WECS, the distance measured from ground level to the center of the turbine hub.

Meteorological Tower. For the purposes of this Wind Energy Conversion Systems Ordinance, meteorological towers are those towers which are erected primarily to measure wind speed and direction 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.

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

Non-Commercial WECS. A WECS of less than 100 KW in total name plate generating capacity.

Power Purchase Agreement. A legally enforceable agreement between two or more persons where one or more of the signatories agrees to provide electrical power and one or more of the signatories agrees to purchase the power.

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.

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.

Right of Way. The area on, below, or above a public roadway, highway, street, cart way, bicycle trail or lane, boulevard, and public walk, including the ditch bank on both sides of the road and opposite bank adjoining other property, in which the county or township has an interest and including other rights-of-way for travel purposes, drainage and utility easements.

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

Substations. Any electrical facility designed to convert electricity produced by wind turbines to a voltage for interconnection with transmission lines.

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

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

Tower height. The total height of the WECS exclusive of the rotor blades.

WECS – Wind Energy Conversion System. A device such as a wind charger, windmill, or wind turbine and associated facilities that convert wind energy to electrical energy.

WECS facility sitting permit. Shall mean a construction and operating permit granted in accordance with the provisions of this Ordinance.

Wind Turbine. A wind turbine is a 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.

4. Applicability

The requirements of this Ordinance shall apply to all WECS proposed after the effective date of this Ordinance. However, any pre-existing WECS which do not provide energy for a continuous period of twelve (12) months shall meet the requirements of this Ordinance prior to recommencing production of energy. No modification or alteration to an existing WECS shall be allowed without full compliance with this Ordinance.

Non-commercial WECS and meteorological towers of less than 200 feet shall be exempt from the conditional use process. All WECS and Meteorological towers over 200 feet must apply for a conditional use permit.

Any WECS, regardless of size or use, within one half (1/2) mile of the city limits of Brooks, Plummer, Oklee or Red Lake Falls must comply with all ordinances and regulations applicable within the applicable city limits.

5. Procedures.

Conditional use permits and/or variances shall be required for all WECS in Red Lake County except where noted below. An application to the County for a conditional use permit under this section is not complete and will not be accepted by the County until a size determination is made pursuant to Minnesota Statutes, chapter 216F, as amended.

Subd. 1. Application

The application for a conditional use permit for all WECS shall be made to the Red Lake County Environmental Services Administrator and shall include the following information:

1. The name(s) and address(s) of project applicants.
2. The name(s) and address(s) of the project owner(s).
3. The legal description and address of the project.

4. 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.
5. 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.
6. Documentation of land ownership or legal control of the property.
7. Evidence of a Power Purchase Agreement.
8. The latitude and longitude of individual wind turbines.
9. 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.
10. Location of wetlands, scenic, and natural areas including bluffs within 1,320 feet of the proposed WECS.
11. An acoustical analysis, as determined by the Environmental Services Administrator.
12. FAA permit application.
13. Location of all communications towers within a two (2) mile radius of the proposed WECS.
14. A decommissioning plan including a description of how much and where funds will be retained for WECS removal.
15. Description of potential impacts on nearby WECS and wind resources on adjacent properties.
16. Additional information as stated in Minnesota Rules, part 7836.0500 (subpart 1), as amended.

Subd. 2. Procedures

- A. Applicants for conditional use permits must fill out and submit to the Red Lake County Environmental Services Administrator an application containing the information requested above and the application must be determined to be complete.
- B. After determining the application is complete, the Red Lake County Environmental Services Administrator must forward the application and supporting documents to the Red Lake County Board of Commissioners for their review. The Red Lake County Board then has 30 days to review the application and schedule a public hearing.
- C. The Red Lake County Board of Commissioners must hold at least one public hearing on the proposal. Notice of the public hearing must be published in the official newspaper at least ten (10) days before the hearing. Written notice of the hearing must also be provided to the governing bodies of all townships, municipalities and property owners of record within one (1) mile of the WECS.
- D. The applicant or their authorized representative must appear before the Red Lake County Board of Commissioners at the scheduled public hearing(s) to answer questions concerning the proposed conditional use. A decision on the conditional use permit will not be made at the public hearing(s) but shall be developed into a final report to the Red Lake County Board of Commissioners.

- E. The report to the Red Lake County Board of Commissioners shall be placed on the agenda at its next regular meeting after the final public hearing is conducted.
- F. Following consideration of the application and all information from the public hearing(s), the Red Lake County Board of Commissioners must act to approve the application, approve the application with conditions, or deny the application. Decisions must be based on the Conditional use permit findings and on the standards for conditional use permits.
- G. In granting approval of a conditional use permit, the Red Lake County Board of Commissioners may impose conditions it considers necessary to avoid or mitigate adverse land-use impacts associated with the proposed use and protect the public health, safety, and welfare. Any conditions imposed must relate to a situation created or aggravated by the proposed use and must be roughly proportional to the impact of the proposed use.
- H. A written copy of the Red Lake County Board of Commissioners decision, including an explanation of the basis for the decision, must be provided to the applicant.
- I. An amended conditional use permit application will be processed in the same manner as a new conditional use permit.
- J. No application for a denied conditional use permit may be resubmitted for a period of 6 months from the date of denial.
- K. In the event that the applicant violates any of the conditions set forth in the approved conditional use permit, the Red Lake County Board of Commissioners is authorized to revoke the conditional use permit, following the same procedures as required for considering a new conditional use permit request.

Subd. 3. Conditional Use Permit Findings.

- A. The proposed conditional use permit shall not be approved unless the following findings are applicable.
 - 1. The general requirements of this section have been met and can be adhered to.
 - 2. All other applicable requirements of this Ordinance have been met.
 - 3. Any required permits from other state or federal authorities have been obtained.

Subd. 4. Standards for Conditional Use Permits.

- A. The County may impose, in addition to the standards and requirements expressly specified by this ordinance, additional conditions which the County Board or County Environmental Services Administrator considers necessary including conditions relating to any of the management practices and other items required to be submitted with the application.
- B. Any change involving structural alterations, enlargement, or similar changes not specifically permitted in the conditional use permit shall be considered only as part of a new application for a conditional use permit, unless the County Environmental Services Administrator determines the change to be inconsequential, following which the existing Conditional Use Permit may be amended without another public hearing.
- C. The County Board shall deny a Conditional use Permit for a WECS if it determines that the proposed WECS may have the potential for significant effect to:
 - 1. The environment
 - 2. The protection of the public health, safety, and general welfare of the public or

3. The County's promotion of the orderly development and/or maintenance, of agricultural residential, recreational, public, commercial and industrial areas; or
4. The compatibility of different land uses and the most appropriate use of land throughout the county, or
5. Conserving the value of property.

6. Setbacks – Wind Turbines and Meteorological towers

	Wind Turbine - Non-commercial	Wind Turbine-Commercial WECS	Meteorological & micro towers
Property Lines	1.25 times the total height or the distance of the fall zone as certified by a Professional engineer + 10 feet.	1.25 times the total height	The fall zone, as certified by a professional engineer + 25 feet or 1.25 times the total height.
Dwellings	NA if setbacks are met.	1000 feet*	The fall zone, as Certified by a Professional engineer + 25 feet or 1.25times the total height.
Noise Standard	MN Rule 7030	MN Rule 7030	N/A
Road Right-Of-Way	The distance of the fall zone, as certified by a professional Engineer + 25 feet	1.25 times the total height may be reduced for minimum maintenance roads or road with a traffic count of less than 10 per day.	The fall zone, as certified by a professional engineer + 25 feet.
Other Rights-Of-Way (Railroads, power lines, ect.)	The lesser of 1.25 x the total height or the distance of the fall zone, as certified by a professional engineer	To be considered by the County board.	The fall zone, as Certified by a professional engineer + 25 feet or 1.25 times the total height.

State or Federal Wildlife Management Lands. (not CRP)	NA	600 feet	600 feet
Wetlands Type 3, 4 And 5	NA	600 feet	600 feet
Other Structures	NA	To be considered by the County Board	NA
Lakes	1000 feet	1000 feet	1000 feet
Rivers	300 feet	300 feet	300 feet

*The setback for dwellings shall be reciprocal in that no dwelling shall be constructed within 1000 feet of a commercial wind turbine.

Setbacks – substations, accessory facilities, and feeder lines not located within a public right-of-way or any utility easement required by Red Lake County shall be setback at least fifty (50) feet from the public road right of way.

7. Safety Design Standards.

- A. Engineering Certification. For all 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 30 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. Signs with emergency contact information shall also be posted on the turbine or at another suitable point.
- D. 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 and innermost guy wires up to a height of 8 feet above the ground. Visible fencing shall be installed around anchor points of guy wires. Consideration shall be given to painted aviation warnings on meteorological towers of less than 200 feet.
- E. All access doors to WECS and electrical equipment shall be locked.

8. Tower Configuration.

- A. All wind turbines, which are part of a commercial WECS, shall be installed with a tubular, monopole type tower.
- B. Meteorological towers may be guyed.
- C. Color and finish. All wind turbines and towers that are part of a commercial 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. Exceptions may be made by the Environmental Services Administrator for meteorological towers, where concerns exist relative to aerial spray applicators.
- 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. Exceptions may be made by the Environmental Services Administrator for meteorological towers, where concerns exist relative to aerial spray applicators.
- E. Other Signage. The manufacturers or owners company name and/or logo may be placed upon the nacelle, compartment containing the electrical generator, of the WECS.
- F. All feeder lines subject to Red Lake County Authority equal to or less than 34.5 KV in capacity shall be buried. Feeder lines installed as part of a WECS shall not be considered an essential service. If not buried, the owner must apply for a variance within this permit application.
- G. Waste Disposal. Solid and hazardous wastes, including but not limited to crates, packaging materials, damaged or worn parts, as well as used oil 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 one year without energy production, unless a plan is developed and submitted to the Red Lake County Environmental Services Administrator outlining the steps and schedule for returning the WECS to service. All WECS and accessory facilities shall be removed four feet below ground level within 180 days of the discontinuation of use.
- I. Each commercial 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.
- J. Meteorological towers shall be considered discontinued after one year with no collection of data or other use. The discontinued tower must be removed or written permission obtained by the tower owner, from the land owner to continue the site.
- K. Orderly development. Upon issuance of a conditional use permit, all commercial WECS shall notify the Environmental Quality Board Power Plant Siting Act program staff of the

project location and details on the survey form specified by the Environmental Quality Board.

9. Other Applicable Standards.

- A. Noise. All WECS shall comply with Minnesota Rules 7030, as amended governing noise.
- B. Electrical codes and standards. All WECS and accessory equipment and facilities shall comply with the National Electrical Code and other applicable standards.
- C. Federal Aviation Administration. All WECS shall comply with FAA standards and permits.

10. Interference.

The applicant shall minimize or mitigate interference with electromagnetic communications, such as radio, telephone, microwaves, or television signals caused by any WECS. The applicant shall notify all communication tower operations 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.

11. Avoidance and Mitigation of Damages to Public Infrastructure.

- A. Roads. Applicants shall identify all county, city or township roads to be used for the purpose of transporting WECS, substation parts, materials, and/or equipment for construction, operation or maintenance of the WECS and notify the County Engineer at least 30 days prior to construction startup. All repairs and maintenance issues with the county, city or township shall be negotiated prior to the start of construction.
- 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.

12. Violations and Penalties.

- A. It is unlawful for any person to construct, install, maintain, modify, or operate a large wind system, meteorological tower, or wind farm system that is not in compliance with this ordinance or with any conditions contained in a conditional use or land use permit issued pursuant to this ordinance. Any person who fails to comply with any provisions of this ordinance or of a conditional use permit or a land use permit issued pursuant to this ordinance shall, upon conviction be guilty of a misdemeanor. A separate offense shall be deemed committed on each day during which a violation occurs or continues.
- B. Whenever any work is being done contrary to the provisions of this ordinance, the Red Lake County Environmental Administrator may order the work stopped by written notice, served either personally upon the owner or by certified mail. All activities shall cease and desist until subsequent authorization to proceed is received from the Red Lake County Environmental Administrator or Red Lake County Attorney.

C. Any person who fails to comply with the conditions set forth on the Conditional Use Permit may be subject to revocation upon written notice either served personally upon the owner or by certified mail.

D. No person shall hinder or otherwise interfere with the Red Lake County Environmental Services Administrator or other designated staff in the performance of duties and responsibilities required pursuant to this Ordinance. Violators shall be guilty of a misdemeanor.

13. Variance

The Red Lake County Board of Adjustment may grant a variance upon application and only in accordance with Minnesota Statutes, Chapter 394. Any person may make an application to the Board of Adjustment for an area use variance from the literal provisions of this ordinance in instances where their strict enforcement would cause particular difficulties because of circumstances unique to the individual property under consideration and where the hardship is not solely economic. No variance application will be accepted from landowners on property on which there are existing violations or delinquent property taxes.

Notice of time, place and purpose of any public hearings shall be published in the official newspaper of the county at least ten (10) days before the hearing. Written notice of public hearings regarding the application for variances shall be sent to all property owners of record within one mile of the affected property and to affected Township Board of Supervisors, and the municipal council within two (2) miles of the affected property.

Subd. 1. Variance Criteria

A variance may not circumvent the general purposes and intent of this ordinance. In no case shall a variance be granted unless the board determines as follows:

1. how substantial the variation is in relation to the requirement
2. the effect the variance would have on government services
3. whether the variance will effect a substantial change in the character of the neighborhood or will be a substantial detriment to neighborhood properties
4. whether the practical difficulty can be alleviated by a feasible method other than a variance
5. how the practical difficulty occurred, including whether the owner created the need for the variance
6. whether, in light of all of the above factors, allowing the variance will serve the interests of justice.

Subd. 2. Findings of fact.

In ruling on a variance request, the Red Lake County Board of Adjustment must make written findings of facts upon the following considerations and Minnesota Statutes, Chapter 394.27, Subd. 7 and Minnesota Supreme Court Case Rulings;

Subd. 3. Conditions

Conditions, as deemed appropriate by the Red Lake County Board of Adjustment, may be attached to enforce the general purpose and intent of this ordinance.

Subd. 4. Appeal of Decision.

The decision of the Red Lake County Board of Adjustment shall not be final. Any person having an interest affected by this Ordinance or any decision made relating to it shall have the right to appeal to District Court on the question of law and fact within thirty (30) days from the date of recording with the County Recorder. No work may proceed or other permits issued until this appeal period has expired.

Subd. 5. Lapse of Variance.

A variance must be used within one year of the date the variance appeal period expires.

14. Effective Date:

This Ordinance shall be effective as of January 1, 2013.

Passed and approved by the Board of Commissioners, Red Lake County,
Minnesota, this 14th day of August, 2012.

Chairperson:

Ron Weiss
Red Lake County Board of Commissioners

Attest:

Robert Schmitz
Robert Schmitz, Red Lake County Auditor

I, Robert Schmitz, do hereby certify that this is a true and correct copy of the Red Lake County Wind Tower Ordinance as passed by the Red Lake County Board of Commissioners on August 14, 2012.

Robert Schmitz
Robert Schmitz, County Auditor

Date of Publication August 29, 2012

Filed in the Office of the County Recorder, Red Lake County, Minnesota, this
16th day of January, ~~2012~~ 2013