

SECTION 14-18.5 SPECIAL REQUIREMENTS FOR WIND ENERGY CONVERSION SYSTEM

Purpose

The purpose of this section is to set forth a process for permitting wind energy facilities with a rated capacity of 100 kW and less.

(a) Definitions.

D→Rotor Diameter – diameter of the disk transcribed by the rotating rotor blades

H→Hub Height – heights of the center of rotation of the rotor above the local ground level

T→Total Height ($H + \frac{1}{2} D$) – height of the tip of a blade extended at the apex of rotation above the local ground level

Microwave Beam Paths (Aisleway) – An area 500 feet on either side of the center line from the communications tower to the receiving location. The area is required for movement of microwave beams for communication systems.

Residence – means any dwelling for habitation either seasonally, meaning all or a portion of the months of November through April, or permanently by one or more persons. A residence may be part of a multidwelling or multipurpose building, but shall not include buildings such as hotels, hospitals, motels, dormitories, sanitariums, nursing homes, schools or other buildings used for educational purposes, or correctional institutions. A manufactured home as defined in section 168.011, subdivision 8, shall be a residence for purposes of this section.

(b) Permitted Use. These wind turbines are a permitted use in the Agricultural, Rural Management, Freeway Interchange, Business & Industrial zoned areas provided they comply with these standards.

(1) Setback Standards

<u>Object</u>	<u>Setback – measured from center of Tower</u>
Residence	1.25 Total Height (T) of the tower
Project Boundary/Property Line	150 feet unless turbine is a joint venture between adjoining property owner then setback may be reduced to zero
Public Roads right-of-way	150 feet
Other Structures on Owner's Same Parcel	1 rotor diameter

(2) Criteria Standards

- (a) All wind turbine towers, turbines and associated appurtenance above and below ground shall be in compliance with all other applicable State and Federal Regulatory Standards.
- Uniform Building Code as adopted by the State of Minnesota.
 - The National Electrical Code as adopted by the State of Minnesota.
 - Comply with FAA Requirements – Form 7460-1 (submit recommendations from FAA to Mower County and the MN Environmental Quality Board) – only applies to equipment over 200 feet tall or if within two miles of an airport.
 - MPCA/EPA Regulations.
- (b) Complete and submit to Mower County Environmental Services an Acoustic Analysis to assure compliance with the Minnesota Noise Rules as defined in Minnesota Rules Chapter 7030.
- (c) All turbine towers shall be marked with a visible identification number and petitioner will be required to provide the latitude and longitude of each tower and the elevation of the ground and tower height to the Environmental Services Office.
- (d) Wind turbines constructed by a property owner as an accessory use to supply power to a single homestead or commercial venture, and located on the same parcel and within 500 feet of a principal use structure(s) on the parcel, petitioner is exempt from obtaining a separate E 9-1-1 address.
- (e) The Permittee shall prepare a fire protection plan in consultation with the fire department having jurisdiction over the area prior to construction.
- (f) Wind turbines and all associated facilities, including foundations, access roads, underground cable, and transformers, shall not be placed in public waters or wetlands, as defined in Minnesota Statutes section 103G.005 subp. 15a.
- (g) Project developer is responsible for remediation of damaged roads upon completion of project or maintenance of turbines.
- (h) All solid waste and hazardous waste shall be removed from the site and managed in a manner consistent with all appropriate rules and regulations.

(3) Signage. Signs shall be regulated as set forth in Article V of this ordinance.

- (4) Prohibited Locations for Wind Turbines and Associated Electrical Lines Serving Wind Turbines or Wind Farms. These microwave beam paths are based on a 500 foot aisle on either side of the center line. In addition, electrical lines, wind turbines and wind farms are not allowed in an area that falls within a one-mile radius of the center point.

CENTER POINT

Mower: Elkton 400 Final 020505 (Central Radio Tower)

43 39 30.10 N
92 41 19.30 W

END POINTS

Mower: Racine Water Tank

43 46 28.20 N
92 28 52.00 W

Mower: Waltham Water Tank

43 49 16.00 N
92 52 36.70 W

Mower: Lyle Tank

43 30 27.60 N
92 56 40.90 W

Mower: Leroy Tank

43 30 39.10 N
92 30 16.10 W

Mower: Austin 14th Street Tank

43 40 7.10 N
92 59 32.20 W

Each Aisle is Center Point to End Point

(See Attached Map)

Additional Prohibited Locations:

Freeborn County – MN Department of Transportation Tower:

The end points are as follows: Oakland Woods: 43-39-43, 21N 93-06-51.49W

Olmsted County – MN Department of Transportation Tower:

Rock Dell: 43-56-4.86N 92-37-2.45W

SECTION 14-18.6 SPECIAL REQUIREMENTS FOR WIND ENERGY CONVERSION SYSTEM

Purpose

The purpose of this section is to set forth a process for permitting wind energy facilities with a rated capacity of greater than 100 kW but less than 5 MW.

(a) Definitions.

D→Rotor Diameter – diameter of the disk transcribed by the rotating rotor blades

H→Hub Height – heights of the center of rotation of the rotor above the local ground level

T→Total Height ($H + \frac{1}{2} D$) – height of the tip of a blade extended at the apex of rotation above the local ground level

Residence – means any dwelling for habitation either seasonally, meaning all or a portion of the months of November through April, or permanently by one or more persons. A residence may be part of a multidwelling or multipurpose building, but shall not include buildings such as hotels, hospitals, motels, dormitories, sanitariums, nursing homes, schools or other buildings used for educational purposes, or correctional institutions. A manufactured home as defined in section 168.011, subdivision 8, shall be a residence for purposes of this section.

(b) Conditional Use Permit Required. A conditional use permit shall be required in the Agricultural, Rural Management, Freeway Interchange, Business & Industrial zoned areas. All proposed wind energy facilities must fill out a conditional use permit application provided by the Mower County Environmental Services Office, as regulated in Section 14-51, 14-56 and 14-83.

(1) Setback Standards

<u>Object</u>	<u>Setback – measured from center of tower</u>
Residence or previously platted subdivision	750 feet
Project Boundary/Property Line	400 feet or 1 Total Height (T) whichever is greater (unless turbine is a joint venture between adjoining property owner then setback may be reduced to zero) or unless a signed wind easement is provided.
Public Roads or Railroad right-of-way	400 feet or 1 Total Height (T)
Other Structures on Owner's Same Parcel	1 rotor diameter

(2) Criteria Standards

(a) All wind power towers, turbines and apparatuses shall be in compliance with all other applicable State and Federal Regulatory Standards.

- Uniform Building Code as adopted by the State of Minnesota.

The National Electrical Code as adopted by the State of Minnesota.

Comply with FAA Requirements – Form 7460-1 (submit recommendations from FAA to Mower County and the MN Environmental Quality Board)

MPCA/EPA Regulations.

(b) Complete and submit to Mower County Environmental Services an Acoustic Analysis to assure compliance with the Minnesota Noise Rules as defined in Minnesota Rules Chapter 7030.

(c) All turbine towers shall be marked with a visible identification number and petitioner will be required to provide the latitude and longitude of each tower and the elevation of the ground and tower height to the Environmental Services Office.

(d) All turbine towers must be of tubular construction.

(e) The Petitioner shall be responsible for obtaining 9-1-1 rural address from the Mower County Engineer and for obtaining proper signage for the property. Any and all costs associated with 9-1-1 addressing and signage are the responsibility of the Petitioner.

(f) The Permittee shall prepare a fire protection plan in consultation with the fire department having jurisdiction over the area prior to construction.

(g) Wind turbines and all associated facilities, including foundations, access roads, underground cable, and transformers, shall not be placed in public waters or wetlands, as defined in Minnesota Statutes section 103G.005 subp. 15a.

(h) Project developer is responsible for remediation of damaged roads upon completion of project or maintenance of turbines.

(i) All solid waste and hazardous waste shall be removed from the site and managed in a manner consistent with all appropriate rules and regulations.

The Permittee shall not operate a turbine so as to cause microwave, television, radio, telecommunications or navigation interference contrary to Federal Communications Commission (FCC) regulations or other law. In the event the turbine and its associated facilities or its operations cause such interference, the Permittee shall take timely measures necessary to correct the problem.

- (j) The Permittee shall conduct an assessment of television signal reception prior to construction and an assessment of television reception degradation after construction of the turbines, to determine if the television signal is affected by the presence of the wind turbine and associated facilities. The Permittee shall provide the Environmental Services Office a copy of these studies.
 - (k) A professional engineer registered in the State of Minnesota shall certify that the tower and foundation are compatible with and appropriate for the turbine to be installed and that the specific soils at the site can support the apparatus.
- (3) Decommissioning. Provisions shall ensure that facilities are properly decommissioned upon end of project life or facility abandonment. Decommissioning shall include: removal of all structures and debris to a depth of 3 feet, restoration of the soil; and restoration of vegetation (consistent and compatible with surrounding vegetation) shall also be required. The decommissioning plan shall include a \$3,000 non-refundable fee per turbine to be held in escrow by Mower County. This money would be held in escrow by the County and could only be withdrawn with accumulated interest upon a successful implementation of a decommissioning plan. Should the implementation of decommissioning plan fail to meet the goals and objectives of said plan, then the County can use all or a portion of the money in escrow to implement or finish said plan. If the cost of the decommissioning exceeds the escrow amount, the County has the right to collect or assess the cost to the property owner through property taxes or a special assessment.

The owner or operator must inform Mower County in writing if a wind turbine(s) has been idle for one year. The County shall send a certified letter to property owner or turbine owner. The letter shall ask for details of implementation of a decommissioning plan and allow property owner or turbine owner 60 days to respond. Should the owner not respond or respond but not fulfill the decommissioning plan the County, upon County Board approval, can use the money in escrow to pay for the removal of the structures.

- (4) Signage. Signs shall be regulated as set forth in Article V of this ordinance.

(5) Aesthetics. The following items are recommended standards to mitigate visual impacts:

- ♣ Coatings and colorings: Non-reflective unobtrusive color.
- ♣ Lighting: Projects shall utilize minimal lighting. No tower lighting, other than normal security lighting, shall be permitted, except as may be required by the FAA. It may be appropriate for permits to allow for some infra-red lights or heat lamps to prevent icing of sensors.

(6) Permit Application. The following information shall be required with the conditional use permit application:

- ♣ A description of the project, including the number and capacity of turbines, height and rotor diameter and turbine color.
- ♣ A site plan detailing the location of the project area boundaries, turbines, roads, transformers, power lines, interconnection point with transmission lines, and other ancillary facilities or structures.
- ♣ Topographic map of the project site and surrounding area.
- ♣ Current land use on the site and surrounding area.
- Decommissioning plan

(7) Prohibited Locations for Wind Turbines and Associated Electrical Lines Serving Wind Turbines or Wind Farms. These microwave beam paths are based on a 500 foot aisle on either side of the center line. In addition, electrical lines, wind turbines and wind farms are not allowed in an area that falls within a one-mile radius of the centerpoint.

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(See Attached Map)

Each Aisle is Center Point to End Point

SECTION 14-18.61 STATE REGULATED WIND TURBINES & WIND FARMS

Wind farms and wind turbines over 5 MW regulated by the State of Minnesota are also prohibited from locating wind turbines within these designated microwave beam paths or in an area that falls within a one-mile radius of the center point.

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