

# 1400.2500 PETITION FOR RULEMAKING.

## PETITION FOR RULEMAKING TO THE MINNESOTA PUBLIC UTILITIES COMMISSION

Name: Carol A. Overland

Group Represented or Title: Goodhue Wind Truth

Address: c/o Legalectric

1110 West Avenue

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I request that the agency named above (check one):

Adopt a new rule governing siting of wind projects/LWECS 25 MW and above

Amend Minnesota Rules, Chapter 7854, incorporating rules for siting of wind projects/LWECS 25MW and above.

1. Explain the need or reason for the rulemaking you request. The agency will consider your reasons in making its decision, so your explanation must be detailed. You can use additional pages.

In Minn. Stat. § 216F.05, the Public Utilities Commission was directed that it **SHALL** adopt rules governing the consideration of an application for a site permit for an LWECS ...” Minn. Stat. §216F.05 (emphasis added).

The PUC has adopted rules for wind turbines under 25 MW. See Order, In the Matter of Establishment of General Permit Standards for the Siting of Wind Generation Projects Less than 25 Megawatts, Docket No. E, G-999/M-07-1102. This applies, as the caption states, to projects less than 25 megawatts.

The Commission has not adopted any rules for siting of wind projects 25 MW or greater.

2. For a new rule, state the proposed new language of the rule. For rule amendments, repeat the text of the rule, striking through deletions and underlining new language. If you cannot provide new rule language, then write a detailed description of the rule that you are requesting. You can use additional pages.

This will require a full public process, likely a contested case. Specific language that I'd recommend as a starting place for discussion can be found in Section 18, Goodhue County Ordinance, attached.

You must file this petition with the executive director or head of the agency in person or by United States mail. The agency must reply in writing to your petition within 60 days after receiving it.



January 31, 2012

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## Article 18 Wind Energy Conversion System Regulations

### SECTION 1. PURPOSE

**Purpose** – This ordinance is established to regulate the installation and operation of Wind Energy Conversion Systems (WECS) within Goodhue County that have a total nameplate capacity of 5 Megawatts or less (Small Wind Energy Conversion Systems – SWECS) and are not otherwise subject to siting and oversight by the State of Minnesota pursuant to Minnesota Statutes, Chapter 216F, Wind Energy Conversion Systems, as amended. For LWECS, the county does not assume regulatory responsibility or permit authority under MS 216F.08, but any standards more stringent than those of the MPUC are to be considered and applied to LWECS per MS 216F.081

### SECTION 2. DEFINITIONS

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- Subd. 1. **Airfoil:** A part such as a blade, with a flat or curved surface, designed to provide a desired reaction.
- Subd. 2. **Azimuth:** A horizontal angle measured clockwise in degrees with 00° 00' 00" being the north reference point.
- Subd. 3. **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.
- Subd. 4. **C-BED Project:** As defined in Minnesota Statutes 216B.1612, as amended. Based on the total name plate generating capacity, C-BED Projects are considered to be (1) Micro-WECS, (2) Non-Commercial WECS or (3) Commercial WECS as defined in this Section.
- Subd. 5. **Commercial WECS:** A WECS of 1 megawatt to 5 megawatts in total name plate generating capacity.
- Subd. 6. **Comprehensive Plan:** Comprehensive Plan means the policies, statements, goals, and interrelated plans for private and public land and water use, transportation, and community facilities including recommendations for plan execution, documented in texts, ordinances and maps which constitute the guide for future development of the unincorporated area of the County.
- Subd. 7. **Decibel:** A unit of measure of sound pressure.
- Subd. 8. **dB (A), A-Weighted Sound Level:** A measure of over-all sound pressure level in decibels, designed to reflect the response of the human ear.
- Subd. 9. **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.
- Subd. 10. **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 substation serving the WECS.

- Subd. 11. **Generator nameplate capacity:** The maximum rated output of electrical power production of a generator under specific conditions designated by the manufacturer with a name plate physically attached to the generator.
- Subd. 12. **Hub Height:** The distance from the ground to the center axis of the turbine rotor.
- Subd. 13. **Large wind energy conversion system or LWECS.** "Large wind energy conversion system" or "LWECS" means any combination of WECS with a combined nameplate capacity of 5,000 kilowatts or more.
- Subd. 14. **Meteorological Tower:** 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.
- Subd. 15. **Micro-WECS:** Micro-WECS are WECS of 1 kilowatt nameplate generating capacity or less and utilizing supporting towers of 40 feet or less.
- Subd. 16. **Nacelle:** Contains the key components of the wind turbine, including the gearbox, yaw system, and electrical generator.
- Subd. 17. **Non-Commercial WECS:** A WECS of less than 1 megawatt in total name plate generating Capacity and 225 feet in total height or less.
- Subd. 18. **Non Prevailing Wind:** The non-dominant wind direction in Goodhue County.
- Subd. 19 **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 of power.
- Subd. 20. **Preliminary Acoustic Study:** A study certifying the WECS will be in compliance with State of Minnesota Noise Standards.
- Subd. 21. **Prevailing Wind:** The predominant wind direction in Goodhue County.
- Subd. 22. **Project:** A WECS or combination of WECS.
- Subd. 23. **Project Boundary:** The boundary line of the area over which the entity applying for a WECS permit has legal control for 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.
- Subd. 24. **Project Owner:** An individual or entity with legal ownership of WECS project.
- Subd. 25. **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.
- Subd. 26. **Qualified Independent Acoustical Consultant:** A person with Full Membership in the Institute of Noise Control Engineers/INCE, or other demonstrated acoustical

engineering certification. The Independent Qualified Acoustical Consultant can have no financial or other connection to a WECS developer or related company.

- Subd. 27. **Rotor:** A system of airfoils connected to a hub that rotates around an axis.
- Subd. 28. **Rotor Blades:** See Airfoil.
- Subd. 29. **Rotor diameter (RD):** The diameter of the circle described by the moving rotor blades.
- Subd. 30. **Small wind energy conversion system or SWECS:** "Small wind energy conversion system" or "SWECS" means any combination of WECS with a combined nameplate capacity of less than 5,000 kilowatts.
- Subd. 31. **Substations:** Any electrical facility designed to convert electricity produced by wind turbines to a voltage greater than 35,000 volts (35 kilovolts) for interconnection with high voltage transmission lines shall be located outside of the road right of way.
- Subd. 32. **Total height:** The highest point, above ground level, reached by a rotor tip or any other part of the WECS.
- Subd. 33. **Total Name Plate Capacity:** The total of the maximum rated output of the electrical power production equipment for a WECS project
- Subd. 34. **Tower:** Towers include vertical structures that support the electrical generator, rotor blades, or meteorological equipment.
- Subd. 35. **Tower height:** The total height of the WECS exclusive of the rotor blades.
- Subd. 36. **Transmission Line:** Those electrical power lines that carry voltages of at least 69,000 volts (69 kilovolts) and are primarily used to carry electric energy over medium to long distances rather than directly interconnecting and supplying electric energy to retail customers.
- Subd. 37. **WECS:** "Wind energy conversion system" or "WECS" means any device such as a wind charger, windmill, or wind turbine and associated facilities that converts wind energy to electrical energy.
- Subd. 38. **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.

### **SECTION 3. PROCEDURES**

- Subd. 1. Land Use Permits, Conditional Use Permits, and Variances shall be applied for and reviewed under the procedures established in Article 2, Article 4 and Article 5 of the Goodhue County Zoning Ordinance, except where noted below.
- Subd. 2. The application for WECS that are under the permitting authority of this ordinance shall include the following information:
  - A. The name and address of all project applicants and project owners.
  - B. The legal description, address, and parcel identification numbers associated with the project.

- C. Project description including: the number and type of towers, tower height; if applicable, name plate generating capacity, rotor diameter, and total structure height with blades.
- D. A site plan drawn to scale showing the following information within the project boundary and within one mile of the project boundary, unless otherwise noted, (in the case of single towers, the plan shall show this information within a one mile buffer of the individual tower):
  - 1. The project boundary, parcels lines, and landowner names.
  - 2. Contours: 2 foot – 10 foot depending on the scale of the project.
  - 3. Existing structures including but not limited to: buildings, communication towers, and WECS towers.
  - 4. Existing registered feedlots, registered mining operations, airports, air strips.
  - 5. Natural and Regulatory features as defined in the County's Environmental Constraints Land Use Evaluation (ECLUE) Model.
  - 6. Existing roads.
  - 7. Proposed location of towers, related accessory structures, concrete batch plants, and staging areas. If the location of related structures and staging areas are unknown at the time of application, indicate the proposed size or area dimensions as a note on the plan.
  - 8. Proposed Haul Routes within the County to be utilized for material transport, construction, and maintenance activities. Indicate which roads the anticipated loads are more than posted weight limits.
- E. If energy produced will be used exclusively on-site or connected to a utility electrical grid. If connected to a grid, indicate on the site plan the proposed route and connection points.
- F. A Decommissioning plan as outlined in Section 5 of this article.

The application for Commercial WECS, as defined in this article, shall also include the following information:

- G. Preliminary Stray Voltage Test as outlined in Section 6, Subd. 1 of this article.
- H. A Preliminary Acoustic Study as outlined in Section 8 of this article.
- I. A list of all other State and Federal regulatory permits necessary for the project. Evidence of these permit approvals must be provided to the County prior to the issuance of building permits.
- J. Documentation indicating if the project is a C-BED project. If the project is a C-BED project, the documentation shall indicate the percentage ownership of the project owners.
- K. If the energy produced from a project is not used exclusively on-site but is distributed to a utility electrical grid, provide documentation from the utility companies involved indicating they have entered a Power Purchase Agreement with the project participants.

Subd. 3. Aggregated Projects – Procedures: Aggregated Projects 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. Aggregated projects having a combined capacity equal to or greater than the threshold for State oversight as set forth in MS Statute 216F.01 through 216F.07 shall be regulated by the State of Minnesota.

- Subd. 4 The County may, at its discretion, require a Development Agreement to address specific technical procedures which may include but are not limited to: road use and repair, telephone line repair, site specific issues, payment in lieu of taxes, other financial securities, or real property value protection plans. The County may negotiate with applicants to limit night time noise to a limit of an annual average of 40 decibels (dBA), corresponding to the sound from a quiet street in a residential area (World Health Organization night noise guidelines for Europe).
- Subd. 5 WECS projects that have a total nameplate capacity of more than 5 megawatts as regulated by the County shall provide to the County copies of all PUC filings and decisions as it pertains to the proposed project. The owners/operators of such WECS projects shall also provide the items listed in this Section to the County at the time of filing with the PUC in order that the County has adequate time to review and comment on the project to the PUC. The County may, at its discretion, hold public meetings to discuss such projects.
- Subd. 6 The applicant must provide proof of liability insurance covering the towers/project covering the lifespan of the project from the initial construction to final decommissioning.

**SECTION 4. DISTRICT REGULATIONS**

- Subd. 1. WECS will be permitted, conditionally permitted or not permitted based on the generating capacity and land use district as established in the table below:

<b>DISTRICT</b>	<b>NON-COMMERCIAL MICRO WECS</b>	<b>NON-COMMERICAL *</b>	<b>COMMERCIAL</b>	<b>METEOROLOGICAL TOWER*</b>
A-1	Permitted	Permitted	Conditionally Permitted	Permitted
A-2	Permitted	Permitted	Conditionally Permitted	Permitted
A-3	Permitted	Conditionally Permitted	Not Permitted	Conditionally Permitted
R-1	Permitted	Not Permitted	Not Permitted	Not Permitted
B-1	Permitted	Conditionally Permitted	Not Permitted	Not Permitted
B-2	Permitted	Conditionally Permitted	Not Permitted	Not Permitted
MXH	Conditionally Permitted	Not Permitted	Not Permitted	Not Permitted
I	Permitted	Permitted	Conditionally Permitted	Permitted
S	Not Permitted	Not Permitted	Not Permitted	Not Permitted
FP	Not Permitted	Not Permitted	Not Permitted	Not Permitted
WS	Not Permitted	Not Permitted	Not Permitted	Not Permitted
CR	Not Permitted	Not Permitted	Not Permitted	Not Permitted
W	Not Permitted	Not Permitted	Not Permitted	Not Permitted

\*. **Setbacks – Wind Turbines and Meteorological Towers**

	<b>WIND TURBINE – NON-COMMERICAL MICRO WECS</b>	<b>WIND TURBINE – NON-COMMERICAL WECS</b>	<b>WIND TURBINE – COMMERCIAL WECS</b>	<b>METEOROLOGICAL TOWERS</b>
Property lines	1.1 times the total height or in A-1 and A-2 Districts only the distance of the fall zone as certified by a professional engineer plus 10 feet.	1.1 times the total height or in A-1 and A-2 Districts only the distance of the fall zone as certified by a professional engineer plus 10 feet.	3 RD Non-prevailing and 5 RD Prevailing***	The fall zone, as certified by a professional engineer plus 10 feet or 1.1 times the total height.
Neighboring Dwellings*	750 feet This setback requirement may be reduced by the Zoning Administrator subject to maintaining adequate health and safety requirements.	750 feet	750 feet from participating neighboring dwellings; non-participating dwelling setbacks are 10 RD; Setbacks can be less if an owner agrees to a reduced setback, but no less than 750 feet.	The fall zone, as certified by a professional engineer plus 10 feet or 1.1 times the total height.
ROAD RIGHTS OF WAY**	The Distance Of The Fall Zone, As Certified By A Professional Engineer Plus 10 Feet Or 1.1 Times The Total Height	The Distance Of The Fall Zone, As Certified By A Professional Engineer Plus 10 Feet Or 1 Times The Total Height	1.1 Times The Height May Be Reduced For Minimum Maintenance Roads Or A Road With An Average Daily Traffic Count Of Less Than 10.	The Fall Zone, As Certified By A Professional Engineer Plus 10 Feet Or 1.1 Times The Total Height.
OTHER RIGHTS-OF-WAY (RAILROADS , POWER LINES, ETC.)	THE LESSER OF 1.1 TIMES THE TOTAL HEIGHT OR THE DISTANCE OF THE FALL ZONE, AS CERTIFIED BY A PROFESSIONAL ENGINEER PLUS 10 FEET.	The fall zone, as certified by a professional engineer plus 10 feet or 1.1 times the total height.	THE LESSER OF 1.1 TIMES THE TOTAL HEIGHT OR THE DISTANCE OF THE FALL ZONE, AS CERTIFIED BY A PROFESSIONAL ENGINEER PLUS 10 FEET.	THE FALL ZONE, AS CERTIFIED BY A PROFESSIONAL ENGINEER PLUS 10 FEET OR 1.1 TIMES THE TOTAL HEIGHT.



	<b>WIND TURBINE – NON-COMMERICAL MICRO WECS</b>	<b>WIND TURBINE – NON-COMMERICAL WECS</b>	<b>WIND TURBINE – COMMERCIAL WECS</b>	<b>METEOROLOGICAL TOWERS</b>
Public conservation lands	1.1 TIMES THE TOTAL HEIGHT	The fall zone, as certified by a professional engineer plus 10 feet or 1.1 times the total height.	3 RD Non-Prevailing and 5 RD Prevailing***	600 feet
Wetlands	1.1 TIMES THE TOTAL HEIGHT	The fall zone, as certified by a professional engineer plus 10 feet or 1.1 times the total height.	1,000 FEET OR 3 RD NON-PREVAILING AND 5 RD PREVAILING***	600 feet
Other Structures	The fall zone, as certified by a professional engineer plus 10 feet or 1.1 times the total height.	3 RD Non-Prevailing and 5 RD Prevailing***	The fall zone, as certified by a professional engineer plus 10 feet or 1.1 times the total height.	The fall zone, as certified by a professional engineer plus 10 feet or 1 times the total height.
Other Existing WECS and Internal Turbine Spacing	NA	750 FEET FROM TOP OF BLUFF (MISSISSIPPI RIVER AND CANNON RIVER), 500 FEET FROM TOP OF BLUFF FROM OTHER BLUFFS IN SHORELAND AREAS OR FOR NON-SHORELAND BLUFFS.	3 RD Non-Prevailing and 5 RD Prevailing	The fall zone, as certified by a professional engineer plus 10 feet or 1 times the total height.  -Extent of wake interference impacts on existing WECS shall be considered
BLUFFS	750 FEET FROM TOP OF BLUFF (MISSISSIPPI RIVER AND CANNON RIVER), 500 FEET FROM TOP OF BLUFF FROM OTHER BLUFFS IN SHORELAND AREAS OR FOR NON-SHORELAND BLUFFS.		1350 FEET FROM TOP OF BLUFF (MISSISSIPPI RIVER AND CANNON RIVER), 500 FEET FROM TOP OF BLUFF FROM OTHER BLUFFS IN SHORELAND AREAS OR FOR NON-SHORELAND BLUFFS.	1350 FEET FROM TOP OF BLUFF (MISSISSIPPI RIVER AND CANNON RIVER), 500 FEET FROM TOP OF BLUFF FROM OTHER BLUFFS IN SHORELAND AREAS OR FOR NON-SHORELAND BLUFFS.

\* The setback for dwellings, schools, churches, health care facilities, campgrounds shall be reciprocal unless the owner or authorized agent signs a letter of understanding waiving this setback, but no less than a 750 foot setback.

\*\* The setback shall be measured from future rights-of-way if a planned changed or expanded right-of-way is known.

\*\*\*Prevailing and Non Prevailing Rotor Diameter setbacks shall be measured horizontally from the

tower base.

- Prevailing Wind –Azimuth between 290 degrees to 30 degrees and between 130 degrees and 230 degrees.
- Non-Prevailing Wind – Azimuth between 30 degrees and 130 degrees and between 230 degrees and 290 degrees.

### **Setbacks – Substations and Accessory Facilities:**

Minimum setback standards for substations and feeder lines shall be consistent with the standards for essential services established in Article 15 (Essential Services) of the Goodhue County Zoning Ordinance.

### **Substation setbacks**

- 0 feet / structure setback from road ROW – located wholly outside the ROW.
- Property lines 0 feet / structure setback from property lines/side yard.

## **SECTION 5. REQUIREMENTS AND STANDARDS**

### Subd. 1. Safety Design Standards

- A. Engineering Certification – For all WECS, a Minnesota licensed 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.

Subd. 2. Total height – Non-Commercial WECS shall have a total height of 225 feet or less.

Subd. 3. Tower configuration – All wind turbines, which are part of a commercial WECS, shall be installed with a tubular, monopole type tower.

Subd. 4. Meteorological towers may be guyed.

Subd. 5. 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 matte or non-reflective. Exceptions may be made for metrological towers, where concerns exist relative to aerial spray applicators.

Subd. 6. 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 for metrological towers, where concerns exist relative to aerial spray applicators.

Subd. 7. Other Signage – All signage on site shall comply with Article 11 (Performance Standards), Section 18. (Sign Regulations) of the Goodhue County Ordinance. The manufacturer's or owner's company name and/or logo may be placed upon the nacelle of the WECS.

- Subd. 8. Feeder Lines – All communications and feeder lines, equal to or less than 34.5 kilovolts 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. This standard applies to all feeder lines subject to Goodhue County Ordinances.
- Subd. 9. 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.
- Subd. 10. Avoidance and mitigation of damages to Public Infrastructure:
- A. All public roads to be used for the purpose of transporting WECS, substation parts, materials, and/or equipment for construction, operation or maintenance of the WECS shall obtain applicable weight and size permits from the impacted road authorities prior to construction.
  - B. Contact the road authority for road closures, road signage removals, road signage re-locating, road signage restoring, moving permits, culverts, access/driveway permits, tile outlet permits, widening road intersections, standard utility permits and any other road activities that may require permits.
  - C. Contact Goodhue County Dispatch prior to any road closures for the re-routing of emergency vehicles. Notify and consult with affected property owners to ensure reasonable access.
  - D. Contact the road authority to conduct an inspection of the road conditions of the haul routes prior to and after construction.
  - E. The applicant shall retain a Minnesota Licensed Engineer approved by the County Engineer to analyze bridges along the haul routes to determine if the bridges have the capacity to support the oversized vehicles. The applicant shall provide a signed report by the registered engineer to the road authority to the use of the bridges identified on the haul routes.
  - F. The applicant shall provide financial assurance in the form of a cash escrow or irrevocable letter of credit in an amount equal to 125% of the cost(s) to repair anticipated damages to public infrastructure including public roads and drainage systems as determined by the road authority, to be held by the County until the Township and/or County road authority have provided the County Public Works Director and the County Finance Director with a written release that all haul routes within their jurisdiction in Goodhue County have been returned to pre-construction condition by the Applicant/Developer. As an alternative for paved roads the road authorities may agree to accept a payment as reimbursement for the road life consumed by the project.
  - G. The developer will be responsible to maintain the haul roads during construction to insure they can be used by the travelling public.
  - H. The road authority will repair the roads if the Applicant/Developer is not responsive and invoice Applicant/Developer.
- Subd. 11. The Applicant shall be responsible for immediate repair of damage to public and private drainage systems stemming from construction, operation, maintenance, or decommissioning.

- Subd. 12. Discontinuation and Decommissioning - A WECS shall be considered a discontinued use after 1 year without energy production, unless a plan is developed and submitted to the Goodhue County Zoning Administrator outlining the steps and schedule for returning the WECS to service.
- A. All WECS towers shall be removed from the properties and properly disposed of, recycled, or reclaimed within 90 days of discontinuation of use. Accessory facilities, footings and foundations must be reviewed by an engineer, geoscientist, and/or the Building Official to determine the reuse or environmental impact of removal within 90 days of the discontinuation of use. If it is determined that the footings or foundations must be removed, a removal plan must be submitted to the County for approval.
  - B. Each 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.
  - C. The cost estimates shall be made by a competent party approved by the County; such as a Professional Engineer, a contractor capable of decommissioning or a person with suitable expertise or experience with decommissioning.
  - D. 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.
  - E. The owner and/or operator shall provide financial security in the form of a cash escrow or an irrevocable letter of credit in an amount equal to 125% of the cost estimate prepared by a competent party (see paragraph C) to ensure that decommissioning of Commercial WECS is completed as required in this subdivision.
- Subd. 13. Orderly Development – Upon issuance of a conditional use permit, all Commercial WECS shall notify the PUC or Department of Commerce, Energy Facility Permitting staff of the project, location, and details on the survey form specified by the PUC.

## **SECTION 6. STRAY VOLTAGE TESTING FOR COMMERCIAL WECS PROJECTS**

- Subd. 1 Pre-construction Stray Voltage Test. The applicant shall offer to perform at least two pre-construction stray voltage tests at all registered feedlots within the proposed project boundary and within a one-mile radius beyond the proposed project boundary. The applicant shall pay for these associated costs.
- Subd. 2. A copy of the test results shall be sent to each of the following: property owners, Minnesota Public Utilities Commission, local utilities, and the County. The applicant shall obtain written permission from property owners prior to stray voltage testing. If permission is denied, all responsibility for stray voltage problems shall be with the property owner.
- Subd. 3 If a registered feedlot owner within the project boundary has a stray voltage test performed for their facility, and it is found that the cause of the stray voltage is attributed to the Commercial WECS project, the project owners shall pay for all costs associated with the testing and correcting of the problem.

**SECTION 7. PRELIMINARY ACOUSTIC STUDY FOR COMMERCIAL WECS PROJECTS**

- Subd. 1. An acoustic study that demonstrates the project will be compliant with State of Minnesota Noise Standards.
- Subd. 2. This shall include the estimated dB (A) levels at all receptors within one (1) mile of the nearest turbine within a project area and shall include accumulated sound within the project.

**SECTION 8. LOCAL EMERGENCY SERVICES NOTIFICATION REQUIREMENTS FOR COMMERCIAL WECS PROJECTS**

- Subd. 1 The Applicant shall provide a copy of the project summary and site plan to local emergency services, including paid or volunteer Fire Department(s) that serve the WECS project area.
- Subd. 2. The Applicant shall coordinate with local emergency response serves for the WECS Project. A copy of the plan shall be submitted to the Goodhue County Office of Emergency Management.

**SECTION 9. OTHER APPLICABLE STANDARDS**

- Subd. 1. Noise – All WECS shall comply with State of Minnesota Noise Standards.
- Subd. 2. Electrical codes and standards – All WECS and accessory equipment and facilities shall comply with the National Electrical Code and other applicable standards.
- Subd. 3. Owner/Operator contact information shall be provided to the County on a yearly basis.
- Subd. 4. Minnesota State Building Code – All WECS shall comply with the Minnesota State Building Code.
- Subd. 5. 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.