

## An Ordinance for Integration of Wind Energy Production into Madison County Resident Properties

I. **PURPOSE:** To fulfill the responsibility of county officials to protect residents while promoting responsible development.

II. **DEFINITIONS:**

**Aggregate Project:** Project developed and operated in a coordinated fashion, which may include multiple separate entities owning one or more of the individual wind turbines within the project. Associated infrastructure such as power lines and transformers are also part of the aggregate project.

**Applicant:** Entity submitting application for wind energy project to County for consideration.

**Clustering:** The grouping of wind turbines positioned closely together in proximity to a particular dwelling.

**Dwelling:** The structure that one or more persons occupy the majority of time on a property for personal reasons. The structure may be a residence or commercial building. Barns, sheds, and unattached garages are not considered dwellings.

**Fall Zone:** The area defined by the furthest distance from the tower base any part of a turbine could collapse in any direction in the event of a structural failure. This area typically extends out to a distance less than the total height of the structure.

**Feeder Line:** Any power line carrying, or designed to carry, electrical power from one or more turbines to the point of interconnection with the electric power grid.

**Financial Assurance:** Assurance provided by project applicant, and/or owner by means of surety bond, cash escrow, or irrevocable letter of credit to the County for potential damages and decommissioning expenses.

**Hub:** Central point of nacelle where rotor blades connect to the unit.

**Non-participating Property:** Any property within the project boundary not involved via lease, easement, or contract that may be impacted by the project.

**Operator:** Entity responsible for day-to-day operation and maintenance of WECS and substations, including any third-party contractors.

**Owner:** Entity or entities with any equity interest in the WECS, including respective successors and assignees.

**Participating Landowner:** An owner of land within the project boundary who is involved via

lease, easement, or contract for the siting, development, and operation of a WECS as well as all landowners who have waived their rights to setbacks provided in the ordinance.

**Participating Property:** A property within the project boundary where a WECS is located, or proposed to be located, pursuant to lease, easement, or contract with the owner of the project.

**Professional Engineer:** A qualified individual licensed as a professional structural engineer in the State of Iowa.

**Shadow Flicker:** Moving shadows cast from the rotating blades of a WECS.

**Substation:** Apparatus to collect electrical power from WECS units and convert to high voltage for interconnection with high-voltage transmission lines.

**Wind Energy Conversion System (WECS):** All necessary devices that together convert wind energy into electricity, including the rotor, nacelle, generator, tower, electrical components, foundation, and transformer (collectively, the “turbine”), and electrical cabling from the WECS to the feeder line.

### III. APPLICATION:

Each wind energy project, regardless of size or scope, must submit application to the County for approval under the current County Wind Ordinance a minimum of 30 calendar days *prior to* soliciting any land Easement Agreements.

Application must include:

1. Name(s) of project applicant(s);
2. Name(s) of project owner(s) and operator(s) if different than applicant(s);
3. Legal description and addresses of the proposed project;
4. The applicant or owner of the proposed wind project shall furnish proof of a current general liability policy covering bodily injury and property damage with limits of at least \$2,000,000 per occurrence and \$5,000,000 in the aggregate. Madison County shall be a certificate holder in this policy.
5. Project description including total number of WECS, model(s) of WECS to be used, name plate generating capacity, tower height, rotor diameter, and total height from grade to highest point of rotor tip;
6. A complete, legible copy of the operating manual for the exact model(s) of WECS unit to be used within the project;
7. Site layout, including property lines, existing structures, proposed location of turbines, feeder lines, and all related accessory structures. Layout is to be labeled with distances and drawn to scale.
8. USGS map of the region indicating location of proposed project as well as identification of any wetlands, migratory flyways, designated historical landmark, wildlife preserve, public park, or campground;
9. Completed review of soil types, drainage requirements, and other concerns from the County Soil and Water Commission;

10. Certification by an Engineer competent in the disciplines utilized for WECS projects that electrical, structural, and acoustics systems are compliant with all applicable code;
11. A visual simulation including scale elevations of the proposed WECS and perspective drawings or photographic representations showing the WECS spatially accurate to the landscape and surrounding land uses indicating shadows cast upon nearby dwellings;
12. A transportation map detailing exact roads to be used for transport of equipment and materials, including load zoning for each road and bridge.

The County will post a complete copy of the application in the Zoning Office of the Madison County Courthouse, openly visible for public viewing during all business hours, and will publish a complete copy of application for public review in the official newspaper for Public Notices in the next issue after receipt of application. The 30 calendar day period will commence with newspaper publication. Any Easement Agreements solicited and/or signed within the boundaries of the area in the application before this 30 day period is complete will be treated as an act of bad faith, and the Zoning Commission shall dismiss the application with prejudice.

During the 30 calendar days following official publication of the application, all Township Trustees and Clerks within the proposed wind project area will conduct a referendum among Township residents to obtain consent for the project. A minimum of two-thirds of Township residents of voting age must endorse the project. Upon successful endorsement by Township residents, the Zoning Commission may consider the application through regular Zoning Commission procedures at the Commission's next regularly scheduled meeting following the 30 days, and Easement Agreement solicitation may begin.

#### IV. REQUIREMENTS:

A. **Easements:** All completed Easement Agreements must be filed with the County Assessor within 5 business days of completion. Failure to do so will render each late Agreement void. The Assessor shall keep a publicly accessible list of all properties, property owners, and Easement holders with completed Easement Agreements within each approved project.

B. **Height:** No WECS unit may exceed 500 feet from grade in height. Rotating blades must be positioned such that the lowest point in the rotational arc is a minimum of 50 feet above grade.

C. **Noise:** Audible noise, measured in dB(A), may not exceed 32 dB(A) at the nearest exterior wall of any dwelling adjacent to a WECS unit. Prior to permitting for regular operation, a licensed acoustician with experience in industrial noise shall measure ambient noise, and then certify that operational noise levels for each WECS unit do not exceed 32 dB(A)

D. **Shadow Flicker:** At no time shall the movement of turbine blades or nacelle cast shadows and flicker upon any adjacent non-participating property.

E. **Setbacks:** No WECS unit may be constructed closer than 5,280 feet (1 mile) from any existing residence or well, or 2,700 feet (1/2 mile) from adjacent property lines (whichever is greater), unless permitted by written agreement with affected adjacent property owner through Easement contract.

No WECS unit may be placed closer to any dwelling, owned by a participating landowner or non-participating landowner, than the distance established and defined by WECS manufacturer for the Safe Zone.

No dwelling, participating or not with easements, shall be surrounded on more than three sides by WECS units, defined as WECS units placed within the setback distance measured from the front door of the dwelling, and within setback distance measured from the remaining sides.

No WECS unit may be placed within 1 mile of recognized flyways for Federally protected or managed migratory species.

No WECS unit, substation, or transmission line may be placed within 1.5 times the usual setback distance from any designated historical landmark, wildlife preserve, public park, or campground.

**F. Lighting:** All WECS units must use FAA-approved safety lighting. This Ordinance further stipulates that each WECS unit must use FAA-approved Radar Activated Lighting to minimize nighttime light pollution and its impact on neighboring properties. These lights are activated only when an aircraft comes within operating safety range.

#### **G. Environmental**

1. **Sewer and water:** All facilities shall comply with Madison County septic and well regulations as determined by the County Board of Health. Water wells on adjacent properties shall be inspected by the County Environmental officer prior to construction and operation of WECS units to document baseline conditions.

2. **Dust:** All reasonable measures shall be employed to mitigate dust creation on roads and upon neighboring dwellings.

**H. Land Use Designation:** the Zoning Commission must designate each WECS location site as industrial usage for the lifetime of the WECS unit, substation, or other permanent structure.

#### **V. FINANCIALS:**

Prior to commencement of construction of any WECS unit within a project, Owner must furnish Madison County Supervisors with proof of an irrevocable line of credit or an escrow bearing account equal to at least 25% of the total original cost of the aggregate project to be certain adequate funding is available for removal of same.

In the event applicant or owner intends to transfer ownership of WECS and/or associated generation and transmission equipment, the proposed new owner shall provide Madison County Supervisors with adequate evidence that the same line of credit or escrow bearing account has been secured prior to the transfer of ownership.

Property taxes for WECS units will be assessed based on 50% of unit valuation assessment for the first

year the unit is placed into service. All future years will be based on 90% value of each unit, consistent with taxation for other industrial properties within the county.

Property taxes for the land used for WECS units, substations, and other permanent fixtures will be assessed as industrial property, correctly reflecting the designation and nature of the land use.

## **VI. REMOVAL**

Applicant or owner must submit a decommissioning plan to the Zoning Commission prior to commencement of construction of any part of the approved project. Applicant or owner shall be solely responsible for decommissioning and removal of WECS units and associated structures and equipment. Owner shall notify Zoning Commission of the date of planned discontinuance of operation and removal. Owner is required to remove WECS and associated structures and equipment within 12 months.

Any WECS unit not in service for a period of 6 continuous months shall be considered to be abandoned, and County shall request removal by owner. Owner is required to remove WECS and associated structures and equipment within 12 months.

Upon removal of WECS and associated structures and equipment, owner is required to remove concrete foundation to a minimum of four feet below grade for each location, and restore soil to grade at owner's expense.