

MACOUPIN COUNTY BOARD
ORDINANCE No. O-2023.06

AMENDING WIND ENERGY CONVERSION SYSTEMS SITING ORDINANCE

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I. INTRODUCTION

A. Title

This Ordinance shall be known, cited and referred to as the Macoupin County Wind Energy Siting Ordinance.

B. Authority and Adoption

Adopted April 14, 2021; revised February March 14, 2023.

C. Findings and Purpose

Findings and Purpose. This Ordinance has been adopted for the following purposes after the Board made the following determinations and findings:

1. To assure that any development and production of wind-generated electricity in Macoupin County is safe and effective;
2. To facilitate economic opportunities for local residents;

3. To promote the supply of wind energy in support of Illinois' statutory goal of increasing energy production from renewable energy sources;
4. To adopt regulations to govern the construction, installation, operation and removal of wind energy systems to enhance the protection of the health, safety and welfare of the County's residents, property owners, business owners and the public within the County's planning and zoning jurisdiction; and
5. To adopt the general zoning regulations and add certain new regulations, such as plan review fee reimbursement regulations, to ensure that the financial costs incurred by the County in the review of new development wind energy proposals are paid by developers of such projects.

The Board of Macoupin County, Illinois find that it is in the best interests of the County residents, the property owners and the businesses of the County, as well as the general public, to enact the Code Amendments as set forth below; and

II. DEFINITIONS

- A. "Applicant" means the entity who submits to the County, pursuant to Article V (Siting Approval Permit Application) of this Ordinance, an application for the siting and operation of any WECS or Substation. All references to Applicant in this Ordinance shall include Applicant's successors-in-interest and assigns, which includes a WECS Permittee (as defined below).
- B. "Commercial Operation Date" means the calendar date on which the WECS Project produces power for commercial sale, not including test power
- C. "County Board" means the County Board of Macoupin County.
- D. "Financial Assurance" or "Financial Security" or "Decommission Security" means assurance from a credit worthy party, examples of which include a surety bond (e.g., performance and payment bond), trust instrument, cash escrow, or irrevocable letter of credit.

- E. "Meteorological Tower" means those towers which are erected primarily to measure wind speed and direction plus other data relevant to siting and operation of a WECS Project. For purposes of this ordinance, Meteorological Towers do not include towers and equipment used by airports, the Illinois Department of Transportation, or other similar applications or government agencies, to monitor weather conditions. Light Detection and Ranging (LiDAR) technology may be used in place of Meteorological Towers.
- F. "Nonparticipating property" means real property that is not a participating property.
- G. "Nonparticipating residence" means a residence that is located on nonparticipating property and that is existing and occupied on the date that an application for a permit to develop the WECS Project is filed with the county.
- H. "Occupied community building" means any one or more of the following buildings that is existing and occupied on the date that the application for a permit to develop the commercial wind energy facility is filed with the county: a school, place of worship, day care facility, public library, or community center.
- I. "Operator" means the person or entity responsible for the day-to-day operation and maintenance of a wind energy conversion system, including any third-party subcontractors. The Operator must be a qualified wind power professional. All references to Operator in the Ordinance shall include Operator's successors-in-interest and assigns.
- J. "Owner" means the person or entity or entities with an equity interest in a wind energy conversion system, including their respective successors-in-interest and assigns. The Owner does not mean (i) the property owner from whom land is leased for locating a wind energy conversion system (unless the property owner has an equity interest in a wind energy conversion system) ; or (ii) any person holding a security interest in a wind energy conversion system solely to secure an extension of credit, or a person foreclosing on such security interest, provided that after foreclosure, such person seeks to sell a wind energy conversion system at the

earliest practicable date. This definition includes the definition of Facility Owner as defined in 55 ILCS 5/5-12020.

- K. "Participating Property" means real property that is the subject of a written agreement between the Applicant and the owner of the real property that provides the facility owner an easement, option, lease, or license to use the real property for the purposes of construction a WECS Project or supporting facilities. "Participating property" also includes real property that is owned by an Applicant for the purposes of constructing a WECS Project or supporting facilities.
- L. "Participating residence" means a residence that is located on participating property and that is existing and occupied on the date that an application for a Siting Approval Permit is filed with the County.
- M. "Primary Structure" means, for each property, the structure that one or more persons occupy the majority of time on that property for either business or personal reasons. Primary Structure includes structures such as residences, commercial buildings, hospitals, and day care facilities. Primary Structure excludes ancillary structures such as hunting sheds, storage sheds, pool houses, unattached garages and barns.
- N. "Professional Engineer" means a qualified individual who is licensed as a professional engineer in Illinois. Where a structural engineer is required to take some action under terms of this Ordinance, a Professional Engineer may serve as the structural engineer if he or she has the appropriate structural engineering certification license in Illinois.
- O. "Property Line" means 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, lease, easement, or other appropriate contractual relationship between the Applicant and landowner.
- P. "Protected Lands" means real property that is:

1. Subject to a permanent conservation right consistent with the Real Property Conservation Rights Act;
 2. Registered or designated as a nature preserve, buffer, or land and water reserve under the Illinois Natural Areas Preservation Act.
- Q. Supporting facilities" means the transmission lines, substations, access roads, meteorological towers or other technology used to measure wind speed and direction, storage containers, equipment or towers associated with ADLS, and equipment associated with the generation and storage of electricity by the WECS Project.
- R. "Siting Approval Permit" means a permit approved by the County Board, after a public hearing allowing a particular use at specified location subject to compliance with certain special conditions as may be required by the County Board.
- S. "Substation" means the supporting facility that collects and connects the electrical collection system of the WECS(s) and increases the voltage for connection with the utility's transmission lines.
- T. "Transmission Line" means those electrical power lines that carry voltages of at least 69,000 volts (69 KV) and are primarily used to carry electrical energy over medium to long distances rather than directly interconnecting and supplying electric energy to retail customers.
- U. "Wind Energy Conversion System" ("WECS") means all necessary devices, other than supporting facilities, that together convert wind energy into electricity, including the rotor, nacelle, generator, WECS Tower, electrical components, WECS foundation, transformer, and electrical cabling from the WECS Tower to the Substation(s).
- V. "WECS Permittee" means an Applicant who applies for and receives a Siting Approval Permit under this Ordinance for the siting and operation of any WECS or Substation. All references to a WECS Permittee in this Ordinance

shall include a WECS Permittee's successors-in-interest and assigns.

- W. "WECS Project" means the collection of WECSs and Substations, operations and maintenance buildings, and permanent Meteorological Towers or other technology to measure wind speed and direction plus other data relevant to siting and operation of a WECS Project, as specified in the Siting Approval Permit application pursuant to Article V (Siting Approval Permit Application) of this Ordinance.
- X. "WECS Tower" means the support structure to which the nacelle and rotor are attached.
- Y. "WECS Tower Height" means the distance from the rotor blade at its highest point to the top surface of the WECS foundation.
- Z. "WECS Pre-Construction Submittal" means a submittal necessary for the commencement of work performed toward the construction, erection or installation of an approved WECS, Substation or operations and maintenance building in connection with a WECS Project. A WECS Pre-Construction Submittal must be submitted to the Chair of the Macoupin County Board at least sixty (60) days prior to commencement of construction and after a WECS Project has obtained a Siting Approval Permit from the County Board and the Chair of the Macoupin County Board determines that all conditions, if any, have been satisfied that are imposed by the Siting Approval Permit. The term "commencement of construction", as used in this Ordinance, includes any site development work (e.g., demolition, grubbing, grading, excavation, road work, construction of Project-related structures and infrastructure improvements, etc.) regarding the WECS Project.
- AA. "Wind Turbine" means any piece of electrical generating equipment that converts the kinetic energy of moving wind into electrical energy through the use of airfoils or similar devices to capture the wind.

III. APPLICABILITY

- A. This Ordinance governs the siting of WECS that generate electricity to be sold to wholesale or retail markets and supporting facilities.

- B. Owners of WECS with an aggregate generating capacity of 0.5MW or less who locate the WECS(s) on their own property are not subject to this Ordinance.

IV. PROHIBITION

- A. No WECS or Substation governed by Section 111(A) (Applicability) of this Ordinance shall be constructed, erected, installed, or located within the County, unless prior siting approval has been obtained for each individual, WECS or Substation or ~~for~~ a group of WECS Projects under a joint siting application pursuant to this Ordinance.

V. SITING APPROVAL PERMIT APPLICATION

- A. To obtain siting approval, the Applicant must first submit a Siting Approval Permit application to the County.
- B. The Siting Approval Permit application shall contain or be accompanied by the following information:
 - 1. A WECS Project Summary, including, to the extent available: (a) a general description of the project, including (i) its approximate overall name plate generating capacity, (ii) the potential equipment manufacturer(s), (iii) type(s) of WECS(s), (iv) the number of WECS, and name plate generating capacity of each WECS, (v) the maximum height of the WECS Tower(s) and maximum diameter of the WECS(s) rotor(s), (vi) the number of Substations, (vii) a preliminary project site plan, project phasing plan and project construction timeline plan, and (viii) the general location of the project; and (b) a description of the Applicant, Owner and Operator, including their respective business structures;
 - 2. The name(s), address(es), and phone number(s) of the Applicant(s), Owner and Operator, and all property owner(s), if known, and documentation demonstrating land ownership or legal control of the property;
 - 3. A preliminary site plan for the WECS Project showing the planned location of each WECS Tower,

including legal descriptions for each site, guy lines and anchor bases (if any), Participating and Non-participating Residences, Occupied Community Buildings, parcel boundary lines (including identification of adjoining properties), setback lines, public access roads and turnout locations, Substation(s), operations and maintenance buildings, and permanent Meteorological Towers, if used, electrical cabling from the WECS Tower to the Substation(s), ancillary equipment, third party transmission lines, the location of any wetlands, flood plain, drainage structures including surface ditches and subsurface drainage lines, underground mines, scenic and natural areas within one thousand five hundred (1,500) feet of the proposed WECS, the location of all known communications towers within two (2) miles of the proposed WECS, and the layout of all structures within the geographical boundaries of any applicable setback (the locations of equipment and supporting facilities are subject to change from the preliminary site plan so long as the final locations comply with this ordinance and are shown in the final site plan to be included in the WECS Pre-Construction submittal);

4. A permit application filed with the Federal Aviation Administration;
5. A proposed Decommissioning Plan for the WECS Project including cost estimations;
6. All required studies, reports, certifications, and approvals demonstrating compliance with the provisions of this Ordinance and State statute;
7. An Agricultural Impact Mitigation Agreement (AIMA) executed between the Applicant and the Illinois Department of Agriculture;
8. The topographic map shall include the WECS Project site and the surrounding area;
9. Waivers from the setback requirements of Article VI (Design and Installation), Subsection H (Setback) below executed by the participating land owners and/or the non-participating property

owners bearing a file stamp from the County Recorder of Deeds Office confirming that the waiver was recorded against title to the affected real property.

10. Waivers from the shadow flicker mitigation requirements of Article VII (Operation), Subsection D (Shadow Flicker) below executed by the participating land owners bearing a file stamp from the County Recorder of Deeds Office confirming that the waiver was recorded against title to the affected real property.

11. Any other information requested by the County or the County consultants that is necessary to evaluate the siting application and operation of the WECS Project and to demonstrate that the WECS Project meets each of the regulations in this Ordinance, including the Siting Approval Permit standards set forth below.

C. The Applicant shall notify the County by delivering notice to the Macoupin County Board of any changes to the information provided in Section V(B) above that occur while the Siting Approval Permit application is pending; and

D. Unless otherwise specified by the Macoupin County Board, the Applicant shall submit two (2) hard copies and at least one (1) copy in electronic format of the Siting Approval Permit application to the Macoupin County Board and make the application available on a publicly available website that does not require a fee to access.

VI. DESIGN AND INSTALLATION

A. Design Safety Certification

1. WECSs shall conform to applicable industry standards, including those of the American National Standards Institute ("ANSI"). Applicants shall submit certificates of design compliance that equipment manufacturers have obtained from Underwriters Laboratories ("UL"), Det Norske Veritas ("DNV"), Germanischer Lloyd Wind Energie ("CGL"), or an equivalent third party in the WECS Pre-Construction Submittal. All turbines shall be

new equipment commercially available; no used or experimental equipment shall be used in the WECS Project without the approval of a variance by the County Board.

2. Following the granting of siting approval under this Ordinance, a structural engineer shall certify, as part of the WECS Pre-Construction Submittal, that the foundation and tower design of the WECS is within accepted professional standards, given local soil, subsurface and climate conditions.

B. Controls and Brakes

All WECSs shall be equipped with a redundant braking system. This includes both aerodynamic overspeed controls (including variable pitch, tip, tilt, and other similar systems) and mechanical brakes. Mechanical brakes shall be operated in a fail-safe mode. Stall regulation shall not be considered a sufficient braking system for overspeed protection.

C. Electrical Components

All electrical components of the WECS shall conform to applicable local, state, and national codes, and relevant national and international standards (e.g. **ANSI** and International Electrical Commission).

D. Aesthetics and Lighting

The following items are recommended standards to mitigate visual impact:

1. Coatings and Coloring: Towers and blades shall be painted white or gray or another non-reflective, unobtrusive color.
2. Turbine Consistency: To the extent feasible, the WECS Project shall consist of turbines of similar design and size, including tower height. Further, all turbines shall rotate in the same direction. Turbines shall also be consistent in color and direction with nearby facilities.
3. Lighting: WECS Projects shall utilize minimal lighting that is compliant with the applicable FAA