

**JACKSON COUNTY ORDINANCE # \_\_\_\_\_**

**AN ORDINANCE REGULATING THE PLACEMENT OF WIND  
ENERGY CONVERSION SYSTEMS (WECS) ON PROPERTY  
LOCATED IN THE UNINCORPORATED AREAS OF JACKSON COUNTY, IOWA**

**BE IT ENACTED BY THE JACKSON COUNTY BOARD OF SUPERVISORS**

**SECTION 1. PURPOSE**

The purpose of this ordinance is to establish guidelines for the siting, design, and construction of Wind Energy Conversion Systems (WECS) and substations which generate electricity for use at the location of the WECS or to be sold to wholesale or retail markets. In addition, the purpose of this ordinance shall be to promote the public health, safety, comfort, and general welfare, while facilitating economic opportunities for rural residents and promoting the goal of increased energy production from renewable energy sources. The requirements of this ordinance shall apply to all WECS constructed after the effective date of this ordinance. Before construction of a WECS is started, a properly issued permit is required. No modification or alteration to an existing WECS shall be allowed without full compliance with this ordinance.

**SECTION 2. DEFINITIONS**

For use in this ordinance, certain words used herein shall be defined as follows:

**Administrator:** Jackson County Zoning Administrator or other person(s) designated by the Jackson County Board of Supervisors.

**Applicant:** The owner or operator of a WECS.

**Aggregated Project:** Aggregated projects are those which are developed and operated in a coordinated fashion but may 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 Wind Energy Conversion System (C-WECS):** A WECS of equal to or greater than (100/40) kW in total name plate generating capacity.

**Easement:** A legal interest in land, as defined in a document recorded in the office of the Jackson County Recorder, granted by the owner to another person or entity, which allows that

person(s) or entity(ies) the use of all or a portion of the owner's land, generally for a stated purpose and duration, including, but not limited to, access or placement of utilities.

**Electromagnetic Interference (EMI):** The interference to communication systems created by scattering of electromagnetic signals.

**Fall Zone:** The area defined as the furthest distance from a tower base, in which a guyed tower or self-supporting tower will collapse in the event of a structural failure. This area includes the total height of the WECS structure based upon the tower's structural design plus ten (10) percent.

**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 electrical power grid. In the case of interconnection with the high voltage transmission systems, the point of interconnection shall be the substation serving the WECS(s).

**Federal Aviation Administration (F.A.A.):** In the service of its regulatory responsibilities, the FAA sets safety and efficiency standards for all U.S. airports and oversees domestic aviation through its Flight Standards District Offices. The FAA is primarily responsible for civil aviation.

**Landowner(s):** All persons, or entity with deeded or contract interest in the property in which the WECS operator or WECS owner has obtained an easement or a lease from to use property for the intent of accessing, installing, or maintaining WECS related equipment or to place, install or maintain WECS related equipment.

**Meteorological Tower (MET):** For the purpose of this ordinance, meteorological towers are those towers which are erected primarily to measure wind speed and direction plus other data relevant to siting WECS.

**Non-Commercial WECS (Non-C-WECS):** A WECS consisting of a wind turbine, a tower, and associated control or conversion electronics, which has a rated capacity of less than 100 kW, a height limit not to exceed 100', and which is intended to primarily reduce on-site consumption of utility power.

**Operator:** The entity responsible for the day-to-day operation and maintenance of the WECS, including third party subcontractors.

**Owner:** The entity or entities with an equity interest in the WECS(s), including their respective successors and assigns. Owner does not mean (i) the property owner from whom the land is leased for locating the WECS (unless the property owner has an equity interest in the WECS); or (ii) any person holding a security interest in the WECS(s) solely to secure an extension of credit,

or a person foreclosing on such security interest provided that after foreclosure, such person seeks to sell the WECS(s) at the earliest practical date.

**Professional Engineer:** A qualified individual who is licensed in the state of Iowa as a professional engineer.

**Residence:** A house, apartment or other shelter that is the abode of a person, family, or household.

**Rotor Diameter:** The diameter of the circle described by the moving rotor blades of a WECS.

**Setback:** The minimum required distance from a residence, or other occupied permanent structure of a minimum size of 120sf, the property line, right-of-way, or easement to any portion of the structure.

**Shadow Flicker:** The alternating pattern of sun and shade caused by the wind tower blades casting a shadow.

**Structure:** Anything constructed or erected on the ground or attached to the ground, including but not limited to, antenna(s), buildings, sheds, cabins, dwellings (built on-site or factory-built homes), signs, storage tanks, towers, windmills, and other similar uses.

**Substation:** The apparatus that connects the electrical connection system of the WECS(s) and increases the voltage for connection with the utility's (or owner's) transmission lines.

**Total Height (WECS):** The highest point, above ground level, reached by the rotor tip or any other part of the WECS.

**Tower:** The vertical structure that supports the electrical generator, nacelle, rotor blades, or meteorological equipment.

**Transmission Line:** 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 electrical energy to retail customers.

**Wind Energy Conversion System (WECS):** All necessary devices that together convert wind energy into electricity, including the rotor, nacelle, generator, WECS tower, electrical components, WECS foundation, transformers, electrical cabling, and meteorological towers from the WECS tower to the substation(s).

**WECS Project:** The collection of WECS(s) and substations as specified in the siting approval application pursuant to Section 3 of this ordinance.

**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. SITING APPROVAL APPLICATION REQUIREMENTS.**

The applicant for the siting and construction of a WECS shall file an application with the Jackson County Zoning Administrator, accompanied by a fee as established by the Jackson County Board of Supervisors, and payable to the Jackson County Zoning Department, Jackson County, Iowa. WECS units will be allowed in all districts except R-1 Residential District. Non-C-WECS units will be treated as accessory structures in A-1, M-1, M-2, and C-1 districts. C-WECS applications will be by special exception use to be reviewed by the Board of Adjustment. Normal Board of Adjustment processes will be standard, except for the notification of area property owners will be extended to notification of property owners within one (1) mile of the C-WECS tower site.

**A.** In addition to the submittal requirements defined for permit application, all applications for C-WECS must submit the following information (as applicable).

1. A WECS project summary, including, to the extent possible: (1) a general description of the project, including its approximate nameplate generating capacity; the potential equipment manufacturer(s), type(s) of WECS(s), number of WECS(s), and the name plate generating capacity of each WECS; and (2) a description of the Applicant, Owner and Operator, including their respective business structures.
2. The names, addresses, contact phone numbers and emails of project applicants.
3. The name, address, contact phone numbers, and emails of the project owner.
4. The legal description and address of the project.
5. Total height, rotor diameter, and total height of all wind turbines and means of interconnecting with the electrical grid.
6. 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.
7. Engineer's certification(s) as required in these supplemental standards.
8. Documentation of land ownership or legal control of the property. **(and Proof of landowner consent .)**
9. The latitude and longitude of individual wind turbines.
10. A United States Geological Survey (U.S.G.S.) topographical map, or map with similar data, of the property and surrounding area, including any other C-WECS within 10 rotor diameters of the proposed C-WECS.
11. Location of wetlands, scenic, and natural areas [including bluffs] within 1,320 feet of the proposed C-WECS.

12. An Acoustical Analysis.
13. F.A.A. Permit Application: Evidence should be provided that a permit application was made to F.A.A. and must have F.A.A approval prior to beginning construction.
14. Location of all known communications towers/facilities within 2 miles of the proposed C-WECS.
15. Decommissioning Plan.
16. Description of potential impacts on nearby C-WECS and Non-C-WECS and wind resources on adjacent properties.
17. A. The Applicant, Owner, or Operator in conjunction with the Jackson County Zoning Administrator and the Jackson County Emergency Management Administrator shall develop an Emergency Action Plan and have it in place before permitting is to be granted.

Question for the county attorney: In item 18... do you feel this is worded correctly. Can we have a separate variance that is part of a special exception? ( The C-WECS are a special exception in the Ag, Industrial and Commercial zoning districts.)

18. If the project does not conform to the requirements for C-WECS and meteorological towers set forth in this ordinance, the Board of Adjustment may consider a request for a variance from the requirements after the following has occurred:
  - a) The Board of Adjustment will set a public hearing on the variance and publish notice not less than ten (10) nor more than twenty (20) days before the date of the meeting at which the variance will be considered.
  - b) Notification of the hearing will be sent to all adjoining property owners as well as neighbors within one (1) mile of the proposed site/parcel of land. The notice will be sent via regular US Postal Service by the Jackson County Zoning Department on behalf of the Board of Adjustment.

The Board of Adjustment may grant the variance request if the applicant demonstrates that the variance is necessary or that the requirement causes undue hardship. The Board of Adjustment will also consider the impact of the variance on the other residents in the neighborhood / area.

19. The Applicant shall notify Jackson County Zoning Department of any changes to the information provided in Section 3 that occur while the siting approval application is pending.

#### **SECTION 4. GENERAL REQUIREMENTS FOR C-WECS AND METEOROLOGICAL TOWERS.**

A. In addition to satisfactorily addressing the considerations set forth in the previous section, the applicant must provide documentation that the following requirements have been met.

1. **Color and Finish.** Wind turbines shall be painted a non-reflective color. Blades may be black in order to facilitate de-icing. Finishes shall be matte or non-reflective. At C-WECS sites, the design of the buildings and related structures shall, to the extent reasonably possible, use materials, colors, textures, screening, and landscaping that will blend the C-WECS to the natural setting and existing environment.
2. **Tower Configuration.** All wind turbines, which are part of a C-WECS, shall be installed with a tubular, monopole type tower. Meteorological towers may be guyed **towers.**
3. **Lighting.** C-WECS sites shall not be artificially lit, except to the extent required by the Federal Aviation Agency (FAA). The developer shall request within the filing of the application with the FAA, that Aircraft Detection Lighting Systems (A.D.L.S.) be installed on all wind turbines where the FAA will allow. A.D.L.S. will reduce the impact of continuous red flashing nighttime lights upon residents, communities, and migratory birds. Exception may be made for meteorological towers, where concerns exist relative to aerial spray applicators.
4. **Signage.** Upon completion of the WECS Tower, the Owner's company name and/or logo and the phone number and name of the person to contact in case of emergency shall be placed upon the base of the WECS Tower or the entrance to any enclosure fence. Wind turbines shall not be used for displaying any advertising except for reasonable identification of the manufacturer, owner, or operator of the C-WECS sites. Should the ownership of the towers or management transfer, name updates (contact information) and emergency action plan, have up to 10 days to be updated.
5. **Feeder Lines.** All communications and feeder lines, equal to or less than 34.5 kV in capacity, installed as part of a C-WECS shall be buried not less than forty-eight (48) inches deep.
6. **Waste Disposal.** Solid and hazardous wastes, including but not limited to crates, materials, damaged or worn parts, as well as used oils and lubricants, shall be removed from the site within the time period as established by the Jackson County Wind Energy Conversion ordinance and disposed of in accordance with all applicable local, state, and federal regulations.
7. **Minimum Ground Clearance.** The blade tip of any wind turbine shall, at its lowest point, have ground clearance of no less than fifty (50) feet.
8. **Signal Interference.** The applicant shall provide applicable microwave transmission providers and the Emergency Management Administrator with copies of the project summary and site plan, in accordance with Section 3, of this ordinance. The applicant

shall minimize and mitigate any interference with electromagnetic communications, such as radio, telephone or television signals caused by any C-WECS. If, after construction of the WECS, the Owner or Operator receives a written complaint related to the above-mentioned interference, the Owner or Operator shall take reasonable steps to respond to the complaint.

**9. Federal Aviation Administration.** All C-WECS shall comply with F.A.A. standards and permits.

**10. Electrical Codes and Standards.** All C-WECS and accessory equipment and facilities shall comply with the National Electrical Code and other applicable standards.

**11. Setbacks.** The following setbacks and separation requirements shall apply to all wind turbines and meteorological towers:

**a) Inhabited Structures.** Each wind turbine shall be set back from **all occupied structures (of over 144sq' that are occupied by humans or livestock.)** ~~the nearest residence, which is able to be occupied, school, hospital, church or public library,~~ a distance no less than (i) two (2) times its total height or (ii) one thousand two hundred (1,250) feet, whichever is greater. Waivers to this stipulation may be granted. MET Tower setbacks shall be a minimum of 1.1 times the total height of the tower.

**b) Property Lines.** Setback from neighboring property lines should be no less than 1.10 times the height of the tower unless appropriate waivers have been received from the adjoining property owner. At no time shall any part of the wind turbine and meteorological tower overhang an adjoining property without securing appropriate easements and waivers from adjoining property owners.

**c) Public Right-of-Way.** Setbacks from public right-of-way, railroad right-of-way, power lines and structures shall be a minimum of 1.1 times the total height.

**d) Communication and Electrical Lines.** Each wind turbine and meteorological tower shall be set back from the nearest above-ground public electric power line or telephone line a distance no less than 1.1 times its total height, determined from the existing power line or telephone line.

**12. Noise.** Audible noise due to C-WECS sites operations shall not exceed fifty 50(dBA) decibels for any period of time, when measured at **any occupied structures (of over 144sq' that are occupied by humans or livestock.)** ~~dwelling, school, hospital, church or public library~~ existing on the date of approval of any permit.

**a)** In the event audible noise due to C-WECS operations contains a steady pure tone, such as a whine, screech or hum, the standards for audible noise set forth in this subsection shall be reduced by five (5) dBA.

**b)** In the event the ambient noise level (exclusive of the development in question) exceeds the applicable standard given above, the applicable standard shall be adjusted to equal the ambient noise level. The ambient noise level shall be expressed in terms of the highest whole number sound pressure level in dBA, which is exceeded for more than five (5) minutes per hour. Ambient noise levels shall be measured at the exterior of potentially affected existing residences, schools, hospitals, churches, public libraries, and all other occupied structures. Ambient noise level measurement techniques shall employ all practical means of reducing the effect of wind generated noise at the microphone. Ambient noise level measurements may be performed when wind velocities at the proposed project site are sufficient to allow wind turbine operation, provided that the wind velocity does not exceed thirty (30) mph at the ambient noise measurement location.

**c)** It is recognized that eastern Iowa experiences storms which produce high winds and there will be temporary extreme weather events with winds more than 45 mph that will cause short term increased noise levels.

**d)** In the event the noise levels resulting from the C-WECS exceed the criteria listed above, a waiver to said levels may be granted by the Board of Adjustment provided that the following has been accomplished:

**(i)** Written consent from the affected property owners has been obtained stating that they are aware of the C-WECS, and the noise limitations imposed by this ordinance, and that consent is granted to allow noise levels to exceed the maximum limits otherwise allowed; and

**(ii)** If the applicant wishes the waiver to apply to succeeding owners of the property, a permanent noise impact easement shall be recorded in the Office of the Jackson County Recorder which describes the burdened properties and which advises all subsequent owners of the burdened property that noise levels in excess of those permitted by this ordinance may exist on or at the burdened property.

**13. Safety.**

**a)** All wiring between wind turbines and the C-WECS substation shall be underground. If the developer can demonstrate the need for an overhead line and the acceptance of landowners for this line, such an option may be approved conditionally by the Jackson County Board of Adjustment.

**b)** Wind turbines and meteorological towers shall not be climbable up to fifteen (15) feet above ground level.



- c) All access doors to wind turbines, meteorological towers, and electrical equipment shall be locked when not being serviced.
- d) Appropriate visible warning signage shall be placed on wind turbine towers, electrical equipment, and C-WECS entrances.
- e) For all C-WECS, the manufacturer's engineer or another qualified engineer shall certify that the turbine, foundation, and tower design of the C-WECS is within accepted professional standards, given local soil and climate conditions.
- f) All WECS shall be equipped with a redundant braking system. This includes both aerodynamic over speed controls (including variable pitch, tip, 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 over speed control.
- g) For all guyed MET 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 twelve (12) feet above the ground. Visible fencing shall be installed around anchor points of guy wires. The landowners must sign a notarized acknowledgement and consent form allowing construction of the turbine and guyed wires without fencing as required in this ordinance to be presented to the Board of Adjustment.
- h) Exceptions to this section may be made for meteorological towers, where concerns exist relative to aerial spray applicators.
- i) Specific signage related to aerial spray applicators shall be displayed and have phone numbers and other contact information, so requests can be made by aerial applicators to shut down turbines for a specific period allotting time for safe aerial spray applications.
- j) Electromagnetic Interference (EMI) No wind energy device / facility shall be located within the microwave path of an emergency communication tower. Any wind energy device / facility shall not cause interference with existing radio, telephone or microwave signals. If it is determined that the interference is being created due to the wind energy device / facility, the owner shall take the necessary corrective measures to eliminate interference.

#### **14. Shadow Flicker.**

- a) The shadow flicker requirements of this section apply to a non-participating residence, or occupied community building that exists when the owner files an application in accordance with Section 3 of this ordinance with the Zoning Administrator.

- b)** An owner shall design the proposed C-WECS or Non-C-WECS to minimize shadow flicker at a residence, or occupied community building to the extent reasonably practicable
- c)** An owner of a C-WECS shall use shadow flicker computer modeling to estimate the amount of shadow flicker anticipated to be caused by the C-WECS and shall design the wind energy conversion system so that computer modeling indicates that no non-participating residence, or occupied community building will experience more than thirty (30) hours per year of shadow flicker under planned operating conditions.
- d)** An owner shall operate the C-WECS in a manner that does not cause more than thirty (30) hours per year of shadow flicker occurring on the walls or windows at a non-participating residence, or occupied community building. If a non-participating residence, or occupied community building experiences more than thirty (30) hours per year of shadow flicker under the C-WECS normal operating conditions, the owner shall use operational curtailment to comply with this section.
- e)** An owner of a C-WECS shall work with an owner of a non-participating residence, or occupied community building to mitigate the effects of the shadow flicker to the extent reasonably practicable.
- f)** An owner of a C-WECS shall provide reasonable shadow flicker mitigation at the owner's expense for a non-participating residence, or occupied community building experiencing twenty (20) hours or more per year of shadow flicker.
- g)** An owner of a C-WECS shall model shadow flicker and a non-participating residence, or occupied community building is eligible for mitigation if computer modeling shows the shadow flicker at the previously listed structures will be twenty (20) hours or more per year. An owner of a non-participating residence or occupied community building is not required to document the actual hours per year of shadow flicker if modeling indicates the structure is eligible for mitigation.
- h)** An owner of a C-WECS may provide shadow flicker mitigation for any residence or occupied community building in addition to the mitigation required under paragraph (f).
- i)** The requirements under par. (f), to mitigate shadow flicker shall apply when the owner receives a written complaint or request for mitigation regarding shadow flicker from an eligible non-participating residence or occupied community building, within two (2) years of commencement of operation of the C-WECS.

(i) If shadow flicker mitigation is required, the owner of the C-WECS shall allow the owner of the non-participating residence or occupied community structure to choose a preferred reasonable mitigation technique, including installation of window coverings or green plantings at the wind energy conversion system owner's expense. The requirement for shadow flicker mitigation is limited to window(s) which are directly impacted by shadow flicker.

j) In the event the shadow flicker resulting from the C-WECS exceeds the criteria listed above, a waiver to said shadow flicker may be granted by the Board of Adjustment provided that the following has been accomplished:

(i) Written consent from the affected property owners has been obtained stating that they are aware of the C-WECS, and the shadow flicker limitations imposed by this ordinance, and that consent is granted to allow shadow flicker to exceed the maximum number of hours per year otherwise allowed; and

(ii) If the applicant wishes the waiver to apply to succeeding owners of the participating property, a permanent shadow flicker impact easement shall be recorded in the Office of the Jackson County Recorder which describes the burdened properties and which advises all subsequent owners of the burdened property that shadow flicker in excess of the maximum permitted hours per year permitted by this ordinance may exist on or at the burdened property.

## **SECTION 5. AVOIDANCE AND MITIGATION OF DAMAGES TO PUBLIC INFRASTRUCTURE**

1. **Roads.** Applicants shall identify all roads to be used for the purpose of transporting C-WECS, substation parts, concrete, and/or equipment for construction, operation, or maintenance of the C-WECS and obtain applicable weight and size permits from the impacted road authority(ies) prior to construction.
2. **Existing Road Conditions.** The applicant shall conduct a pre-construction baseline survey, in coordination with the impacted local road authority(ies) to determine existing road conditions for assessing potential future damage. The survey shall include photographs and a written agreement to document the condition of the public facility. The applicant is responsible for on-going road maintenance and dust control measures identified by the Jackson County Engineer during all phases of construction. The applicant is responsible for any costs required to repair roads, bridges, and/or culverts to pre-construction baseline condition. Jackson County reserves the right to halt operations if road conditions deteriorate to a point that creates a hazard to the public.

The Jackson County Engineer will conduct a post construction survey with the applicant, and submit an invoice for all damages, to be paid within 30 days of receipt of the invoice. Applicants shall provide an assurance or performance bond of 130% of the estimated cost to bring the roads back up to the standards that existed at the time the pre-construction baseline survey was conducted.

3. **Drainage System.** The applicant shall be responsible for immediate repair for damage to public drainage systems stemming from construction, operation, or maintenance of the C-WECS. All bridge and culvert crossings must be preapproved by the Jackson County Engineer
4. **Performance Bond or Equivalent Financial Instrument** The applicant shall be required to hold a performance bond with their contractor/builder assuring that 100% of the project site is completed as shown in the application documents. A copy of the performance bond shall be submitted to the Jackson County Attorney's office before construction commences as part of permitting requirements.

#### **SECTION 6. DISCONTINUATION AND DE-COMMISSIONING**

1. C-WECS shall be considered discontinued use after one (1) year without energy production or non-use, unless a plan is developed and submitted to the Administrator outlining the steps and schedule for returning the C-WECS to service. All C-WECS and accessory facilities shall be removed to four (4) feet below ground level within ninety (90) days of the discontinuation of use. An extension to such period may be granted by the Board of Adjustment provided that the Owner or Operator submits an acceptable alternate plan for the decommissioning and thereafter diligently pursues such decommissioning until completed. **At the time of application**, each C-WECS shall have a decommissioning plan outlining the anticipated means and cost of removing C-WECS at the end of their serviceable life or upon becoming a discontinued use. The soil grade will also be restored following disturbance caused in the removal process. The cost estimates shall be made by a professional engineer licensed in the State of Iowa. The plan shall also identify the financial resources that will be available to pay for the decommissioning and removal of the C-WECS and accessory facilities. **At the expense of the owner, cost estimates for decommissioning shall be reviewed by the owner and Jackson County Board of Supervisors or their appointed representative, every five (5) years.** Jackson County reserves the right to verify that adequate decommissioning terms are contained in the landowner easement.

#### **SECTION 7. NON-COMMERCIAL WECS (Non-C-WECS).**

1. **Non-Commercial WECS are subject to the following standards.** In addition to satisfactorily addressing all other requirements of this ordinance, the applicant must provide documentation that the following requirements have also been met.

a) **Tower Height:** Non-C-WECS shall not exceed one hundred (100) feet in height. Non-C-WECS shall be subject to all height limitations as necessary to comply with other sections of this ordinance and those imposed by F.A.A. regulations.

b) **Setbacks:** No part of the wind system structure, including guy wire anchors, may extend closer than minimum setbacks for the district in which the tower is erected. The distance of the base of the tower from any property line shall be a minimum of 110% of the total height of the tower.

c) **Noise:** Non-C-WECS shall not exceed 50 dBA, as measured at the closest neighboring inhabited dwelling.

In the event the ambient noise level (exclusive of the development in question) exceeds the applicable standard given above, the applicable standard shall be adjusted to equal the ambient noise level. The ambient noise level shall be expressed in terms of the highest whole number sound pressure level in dBA, which is exceeded for more than five (5) minutes per hour. Ambient noise levels shall be measured at the exterior of potentially affected existing residences, schools, hospitals, churches, public libraries, and all other occupied structures. Ambient noise level measurement techniques shall employ all practical means of reducing the effect of wind generated noise at the microphone. Ambient noise level measurements may be performed when wind velocities at the proposed project site are sufficient to allow wind turbine operation, provided that the wind velocity does not exceed thirty (30) mph at the ambient noise measurement location.

d) **Manufacturer's engineering specifications:** Applications for Non-C-WECS shall be accompanied by the manufacturer's documents in regard to standard drawings of the wind turbine structure, including the tower, base, and footings and documentation of engineering standards and proper onsite construction. All manufacturers' engineering and specifications for construction must be followed.

e) **Compliance with F.A.A. Regulations:** Non-C-WECS must comply with applicable F.A.A. regulations, including any necessary approvals for installations close to airports.

f) **Compliance with National Electric Code:** Applications for Non-C-WECS shall be accompanied by a line drawing of the electrical components in sufficient detail to allow for a determination that the manner of installation conforms to the National Electric code. This information is frequently supplied by the manufacturer.

g) **Utility Notification:** No Non-C-WECS shall be installed until evidence has been given that the utility company has been informed of the customer's intent to install an interconnected customer-owned generator. Off-grid systems shall be exempt from this requirement.

**SECTION 8. PERMITS.**

All WECS, C-WECS, and MET Towers are subject to zoning permit requirements. Permit issuance is contingent upon documentation of F.A.A. approval and approval of the Jackson County Board of Adjustment.

**SECTION 9. REPEALER.**

All ordinance(s) in conflict with the provisions of this ordinance are hereby repealed.

**SECTION 10. SEVERABILITY.**

Should any section or provisions of this ordinance be declared by the courts to be invalid or unconstitutional, such decision shall not affect the validity of the ordinance as a whole, or any part thereof other than the part so declared to be invalid or unconstitutional.

**SECTION 11. PENALTY**

Any person, persons, firms, partnerships, or corporations, whether acting alone or in concert with any other, who violates this ordinance, shall be guilty of a County Infraction and shall be penalized as set forth in Ordinance #281 of Jackson County, Iowa.

**SECTION 12. EFFECTIVE DATE.**

This ordinance shall be in effect after its final passage, approval and publication as provided by law.

Passed and approved this \_\_\_\_th day of \_\_\_\_\_ 2024.

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Mike Steines, Chairperson  
Jackson County Board of Supervisors

Attest: \_\_\_\_\_  
Alisa Smith, County Auditor

DRAFT 5/14/2024