

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 while balancing the concerns of preserving the natural beauty, visual resources, protecting natural resources, water quality, wildlife, **tourism and other economic draws** of Jackson County, Iowa. 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, operator or developer 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.

Catastrophic Damages: Any damage by act of fire, severe weather, structural or mechanical failure that causes the WECS unit to be inoperable.

Commercial Wind Energy Conversion System (C-WECS): A WECS equal to or greater than (100/40) kW in total name plate generating capacity or greater than 100' in height.

Easement: A legal interest in land, as defined in a document recorded in the office of the Jackson County Recorder, granted by the landowner to another person or entity, which allows that person(s) or entity(ies) the use of all or a portion of the landowner'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. (We are no longer using fall zone in any of our ordinance. Can we remove this, please?)

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.

Federal Aviation Administration (FAA): 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 / developer 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/Developer: Entity or entities with an equity interest in the WECS, 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 landowner has an equity interest in the WECS); or (ii) any person holding a security interest in the WECS 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 at the earliest practical date.

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

Public Lands: Lands that are managed by federal government, state government, local government or sovereign tribal nations.

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.

Sensitive Areas: A geographic area defined by natural features where there is a significant risk of groundwater degradation from activities conducted at, under or near the land surface. A sensitive area includes but is not limited to sinkholes, rivers, streams, creeks, natural springs, lakes, farm ponds and public water supplies.

Setback: The minimum required distance from the property line or other point of reference.

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 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. Total height restriction of C-WECS shall be no greater than 400'.

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.

Viewshed: A geographical area that is visible from a specific location. It includes all surrounding points that are in line-of-sight with that location and excludes points that are beyond the horizon or obstructed by bluffs, hills, buildings or trees. (This is new language that was added at the suggestion of the asst County Attorney. We talk about viewshed within the ordinance, but there was not a definition.)

Visual Resources: The natural character of the county including the topography, waterways, wetlands, scenic views, natural vegetation, wooded areas and viewsheds.

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 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 using airfoils or similar devices to capture the wind.

SECTION 3. SITING APPROVAL APPLICATION REQUIREMENTS.

After a required pre- application meeting with the Jackson County Board of Supervisors or their designated representative, 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. Each wind turbine will require its own applications and each will be address individually with 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 property lines of the C-WECS tower sites.

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, number of WECS, and the name plate

generating capacity of each WECS; and (2) a description of the applicant, owner, developer and operator, including their respective business structures.

2. The name, address, 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. Tower 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. All required engineering specifications provided as part of the application process shall be reviewed by the Jackson County Engineer to ensure documents are prepared, stamped and signed by a duly licensed professional engineer under the laws of Iowa.
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. FAA Permit Application: Evidence should be provided that a permit application was made to FAA and must have FAA approval prior to beginning construction.
14. Location of all known communications towers/facilities within 2 miles of the proposed C-WECS.
15. A detailed decommissioning plan shall include a means of providing a means of financial assurance, in the form of an irrevocable letter of credit, bond through an "A rated bonding company," cash, escrow or other form of security or guaranty acceptable to Jackson County Board of Supervisors and County Attorney. The decommissioning costs and bonding amount shall be reviewed by a third party to be a licensed engineer specializing in the construction or decommissioning of C-WECS units to be chosen by Jackson County Board of Supervisors, (expenses to be covered by the owner of the C-WECS unit), and the Jackson County Engineer and approved by the Jackson County Attorney and bond secured before issuance of a zoning permit. The required financial

assurance will be the estimated cost of decommissioning plus 10%. De-Commissioning costs shall be reviewed by a licensed engineer every 3 years.

16. Description of potential impacts on nearby C-WECS ~~and Non C-WECS and~~ wind resources on adjacent properties.
17. The applicant, owner, developer 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.
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 or special exception from the requirements after the following has occurred:
 - a) The Board of Adjustment will follow public hearing timelines to public notice.
 - b) Notification of the hearing will be sent to all adjoining property owners as well as neighbors within one (1) mile from the property line 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 or special exception request if all of the standards have been met for the variance or special exception.

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.
20. The Applicant is responsible for reimbursing the County for legal costs incurred by Jackson County during the application process. All fees and legal costs shall be received by Jackson County before the issuance of the permit.
21. The Applicant shall provide mapping of any "sensitive areas" within 1320 feet radius of the proposed site and follow water quality protections as indicated in Section 8.
22. The Applicant shall provide information of the type of fire suppression and fire detection systems that will be installed in the C-WECS and substation and how it will be monitored.

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.** 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 C-WECS. Since A.D.L.S. will reduce the impact of continuous red flashing nighttime lights upon residents, communities, and migratory birds. **Permits will not be allowed for towers where the FAA won't allow A.D.L.S.** Exceptions may be made for meteorological towers, where concerns exist relative to aerial spray applicators. Tower not eligible to have A.D.L.S. shall not be permitted. **(It didn't go deep enough to prohibit anything without A.D.L.S. Added the new language in red. – Ir 11.25.24)**
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 and entrance to any enclosure fence. C-WECS 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 15 days and disposed of in accordance with all applicable local, state, federal regulations **and not affect neighboring landowners land, waterways, surface / ground water or leech into sinkholes.** **(There was discussion 11.15.24 meeting about the cutting of blades onsite. LR reached out with an email to a rep of NextEra to ask about their practice and if there were any mitigation practices they use to lessen or prevent debris from going into the ground water or air. As of 11.25.24 there was not a response. I reached back out to Next Era and copied one of their non NextEra consultants. The consultant called me back and I got an out of office "sick" email from NextEra Rep. The consultant is trying to get someone else to call or email me back answers to this question. 12.11.24)**
7. **Minimum Ground Clearance**. The blade tip of any C-WECS 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 and operator receive a written complaint related to the above-mentioned interference, the owner or operator shall take reasonable steps to determine if their equipment is the reason for the interference and to respond to the complaint.
9. **Federal Aviation Administration.** All C-WECS shall comply with FAA 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 C-WECS and meteorological towers:
- a) **Property Lines.** Setback from any neighboring property lines shall be no less than 1500’.
 - b) **Public Right-of-Way.** Setbacks from public right-of-way, railroad right-of-way, power lines and structures shall be no less than 1500’.
 - c) **Communication and Electrical Lines.** Each C-WECS and meteorological tower shall be set back from the nearest above-ground public electric power line or telephone line a distance no less than 1500’, determined from the existing power line or telephone line.

No waivers from neighboring property owners will be allowed to request closer property line setbacks. This was added new for this draft. No concerns from the county attorney for not allowing waivers for setbacks.

12. **Sound Analysis.** No operating wind energy system equipment shall produce decibel levels exceeding any of the following limitations, except for the initial construction and routine maintenance. Adequate setbacks and effective sound mitigating equipment shall be used to comply with these limitations:
- a) The average hourly C-WECS decibel level shall not exceed fifty (50) dBA as measured from the property line of any non-participating parcel. The average decibel limit is specific to the source of the sound and does not count against cumulative ambient decibel levels as established in a baseline acoustic evaluation.
 - b) The average hourly decibel level may be exceeded during short-term events such as severe windstorms.

- c) A pre and post-construction sound evaluation shall be completed by a certified professional by the Institute of Noise Control Engineering (INCE), or a licensed Professional Engineer (PE) to verify compliance with the County's standards.
- d) Every five (5) years (does the commission want to change this to 3 years?) a noise evaluation shall be completed, at the Operators expense, by a certified professional by the Institute of Noise Control Engineering (INCE), or a licensed Professional Engineer (PE) to verify compliance with the County's standards.
- e) The owner(s) of adjacent property may voluntarily agree, by written and recorded waiver, to a higher average hourly decibel level as measured from any property line of a non-participating parcel.

13. Safety.

- a) All wiring between THE C-WECS and the C-WECS substation shall be underground. If the owner/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) C-WECS 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 C-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.
- 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 signals, telephone service, television reception (including satellite television reception) 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.

k) All C-WECS and substations shall be equipped with operational automatic fire detection and fire suppression systems. The fire suppression and detection systems shall be designed appropriate to the materials and conditions present in the C-WECS or substation. Alarm signals from detection systems shall be transmitted to a central station, proprietary, or remote station service to a constantly attended location. Alarm and fire protection systems shall be installed in accordance with state and federal standards and inspected by a state fire marshal prior to operation. Such fire suppression and detection equipment shall be tested and verified operational on an annual basis by personnel certified for such validation by an independent third-party chosen by the County and paid for by the C-WECS owner or operator. The report then needs to be turned into Jackson County Board of Supervisors for verification of compliance.

14. Shadow Flicker.

a) The shadow flicker requirements of this section apply to a non-participating property.

b) An owner/developer shall design the proposed C-WECS to produce “zero hours” of shadow flicker to be projected onto a neighboring property. This is to be achieved through shadow flicker computer modeling and curtailment of operation.

(i) 9When written consent from the affected property owners has been obtained stating that they are aware of the C-WECS and waive 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 (This is a little rough, and needs cleaned up. ZC... suggestions?)

(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 site and obtain applicable weight and size permits from the impacted road authority(ies) a minimum of 60 days prior to construction.
2. **Existing Road Conditions.** The applicant shall be responsible for, conduct, and provide evidence of a preconstruction roadway conditions survey, in coordination with the Jackson County Secondary Roads Department, to determine baseline road conditions and authority(ies). The survey shall be prepared by a third party licensed professional engineer under the laws of the State of Iowa agreed to by the Jackson County Engineer. The survey shall adequately document all road, road right-of-way, and public drainage infrastructure conditions requested for use during all phases of construction. Applicants shall enter into a Road Use Agreement with Jackson County Secondary Roads Department that clearly details responsibilities for on-going road maintenance and dust control measures for all identified Jackson County jurisdictional roads during all phases of construction. The Road Use Agreement shall require certain applicant undertakings, including but not limited to providing financial assurance in the form of an irrevocable letter of credit, bond, cash, escrow or other form of security or guaranty acceptable to Jackson County. The form of security shall be posted prior to construction mobilization and remain in effect up to 12 months post construction. At construction completion, Applicant shall conduct and provide evidence of a post construction roadway conditions survey, following the same requirements as the preconstruction roadway conditions survey, in accordance with the Road Use Agreement and in coordination with Jackson County Secondary Roads, to determine Jackson County Road conditions meet the Jackson County Secondary Roads Engineer satisfaction.
3. **Drainage System.** The applicant shall be responsible for repair of damage to public drainage systems stemming from construction, operation or maintenance of the C-WECS. The applicant shall acknowledge any damage to public drainage systems and shall be responsible for repairs in a timely manner within 72 hours of damage discovery.
4. **Required Financial Security.** The applicant shall be responsible for restoring or paying damages as agreed to by the applicable road authority sufficient to restore the roads

and bridges to preconstruction condition. Financial assurance mechanism(s) in the form of a performance bond and/or other security approved by the Jackson County Attorney's Office shall be submitted covering 130 percent of the estimated costs of all required improvements. This requirement may be waived or modified by the Jackson County Board of Supervisors upon recommendation from the Jackson County Engineer. (Please read through this section. The county engineer re-read through his previous suggested language and found issues with it. He found the above language, from a larger county that he finds solid and not full of arbitrary figures.)

SECTION 6. DISCONTINUATION, CATASTROPHIC FAILURE 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. (Was it the commissions desire to leave out any of this language since the commission is believing anything below the surface should be spelled out in the landowners contract.) An extension to such a period may be granted by the Board of Adjustment provided that the owner/ developer 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, upon becoming discontinued in use or in case of catastrophic failure. 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 and reviewed by the Jackson County Engineer for accuracy and potential errors or omissions in the estimated costs. The plan shall also identify the financial resources or bonding that will be available to pay for the decommissioning and removal of the C-WECS and accessory facilities. At the expense of the owner/operator, cost estimates for decommissioning shall be reviewed by the owner/operator and Jackson County Board of Supervisors or their appointed representative, every three (3) years. (We have 3 years in other places. Is consistency something you strive for within the ordinance? It would be easy for the administration to monitor if all the reviews were on the same review cycle.) Jackson County reserves the right to verify that adequate decommissioning terms are contained in the landowner easement. (I talked this over with the county attorney. Please consider removing this language.) A waiver or agreement with the landowner would be allowed should a landowner want to keep certain parts of the infrastructure.

2. A C-WECS shall be considered a catastrophic failure should it become inoperable due to fire, a natural disaster, severe weather event, or other serious structural or mechanical failure that causes the WECS unit to be inoperable. In the case of such catastrophic failure:
 - a) A written plan shall be submitted to the Jackson County Board of Supervisor within 30 days of the event rendering the C-WECS inoperable. The written plan shall detail a timeline for cleanup and debris removal.
 - b) The plan shall not extend out beyond 120 days from the day of the event rendering the C-WECS inoperable.
 - c) A concerted effort for clean-up must be notable within 45 days of the event.
 - d) Penalties for violation of these time lines will start one day after the missed deadline.

SECTION 7. WILDLIFE MONITORING AND MITIGATION PLAN (WMMP)

1. The C-WECS facility owner/ developer / operator shall submit a WMMP to mitigate risk to avian and bat populations during the construction and operation phases of the project. The purpose and procedures shall be designed to ensure:
 - a) Avian and bat fatalities and secondary effects on wildlife are minimized.
 - b) All C-WECS projects SHALL comply with both federal and state wildlife regulations AND recommendations.
 - c) Training shall be provided to the construction contractor and operations and maintenance staff.
 - d) Coordination between the owner, project developer and operators, wildlife agencies including Iowa Department of Natural Resources (IDNR), and the Iowa Utilities Board (IUB) is effective and continuous.
2. The WMMP shall include, at a minimum, a narrative including the following:
 - a) Local, state and federal regulatory framework.
 - b) Site characterization.
 - c) Field studies documenting C-WECS project area wildlife conditions and predict project impact.
 - (i) A baseline study of the avian and bat habitat within the project boundary and a 2-mile perimeter outside the project boundary. It shall be conducted by a third-party licensed professional and approved by Jackson County.
 - d) Preconstruction/construction avoidance and minimization measures.
 - e) Operation and maintenance procedures.

(i) At the cost of the **developer/** owner, post construction avian and bat fatality monitoring is conducted by third party licensed professional for three years and then **every third year** following completion of the project construction phase. Issues or concerns in need of correction to be identified by the licensed professional shall be presented to the Jackson County Board of Supervisors and the C-WECS owner. It is the responsibility and cost of the C-WECS owner to make the appropriate corrections.

(ii) Upgrades or retrofits to existing C-WECS should not result in increased avian/bat collisions. The 3-year monitoring timeline shall restart after 12 months of discontinued operation of any C-WECS following a repair, retrofit, or repowering event.

SECTION 8. WATER QUALITY PROTECTIONS

1. C-WECS shall not be built within 1000 feet of a known mapped "Sensitive Area." C-WECS built within 1320 feet of a known sensitive area must adhere to a water protection plan which includes installing and maintaining a buffer strip of perennial grasses and/or native trees with a minimum 30-foot width around the sensitive area. **The work of installing and ensuring the buffer around the sensitive area is to be done by a County approved independent 3rd party that is qualified to install and maintain buffer which controls run off. Reports of compliance shall be provided to the Jackson County Board of Supervisors at the time of project completion and every three years after. Cost of installing and maintaining the buffer around the sensitive area incurred by the C-WECS owner. Completion of the buffer strip shall be completed before the C-WECS is operational.** If there are more restrictive water quality setback restrictions by the State or another National regulatory agency, that will supersede this part of the ordinance.

SECTION 9. STATE AND NATIONAL SCENIC BYWAY VISUAL RESOURCE PROTECTIONS & INTRINSIC AREAS

1. No C-WECS shall be allowed within the **viewshed or** 5 miles (whichever is greater) of the center line from each side of a Scenic Byway. It is recognized that Jackson County, Iowa has the Grant Wood Scenic Byway that traverses east and west across the county and the National Great River Road that runs completely North and South through the county. **(This entire section has formatting issues)**

The Grant Wood Scenic Byway is the State designated scenic byway in Jackson County. Jackson County, being in the southernmost part of the Driftless region,

offers panoramic views of the area that provide awe and wonder to all of those who may have believed that all of Iowa is all flat farm ground. Per the 2017 corridor management plan of the GWSB, the primary corridor around the GWSB, is one mile on each side of the highway. The secondary corridor is all of Jackson County.

The CMP for the GWSB points out the byway's viewsheds, intrinsic features and the importance of protecting them. Chapter 5 specifically addresses wind turbines and the importance of zoning restrictions to reduce the impacts of wind turbines and other large structures that can impact sightlines within the viewshed. Development such as wind turbines could have a great impact on the byway's intrinsic resources and viewshed.

The Iowa Great River Road traverses along the entire east border of the county. It is primarily situated along the Mississippi River and it mainly follows Hwy 52. This is part of the National Scenic Byway. The part of the byway that goes through Jackson County, Iowa, is surrounded by a mix of rolling hills, towering bluffs, lush crop ground, sandy prairies, a large wildlife management area, and loads of history.

The 2015 Corridor Management Plan for the Iowa Great River Road outlines many targeted actions to conserve, maintain, develop and promote the part of the National Scenic Byway that is in Iowa. Some of which include: All levels of government invest to conserve, develop, and promote the Iowa Great River Road Corridor.

Not all the noted intrinsic features of Jackson County mentioned in the Iowa Great River Road and Grant Wood Scenic Byway are within the primary corridor of a scenic byway. Per the Iowa GRR 2015 CMP, it is recognized there are more than a dozen recognized intrinsic or supplemental points of interest in Jackson County that are outside of the primary corridor of a byway.

SECTION 10. DEVELOPMENT BUFFERS AROUND INCORPORATED CITY LIMITS WITHIN JACKSON COUNTY.

It is recognized that 3 cities in Jackson County have co-jurisdiction over subdivisions (including plats of survey) within 2 miles of their cities. (Preston, Bellevue and Maquoketa) This co-jurisdiction approval is to prevent locking up land for potential future city expansion. Other towns in the county have passed resolutions asking for buffers around their town for C-WECS development. Suggestion: Remove this sentence. To maintain a consistent buffer around the communities in our county and as to not impede future expansions to allow for possible future city development, no C-WECS shall be built within 2 miles of an incorporated city limits.

SECTION 11. HONORING BUFFERS ESTABLISH BY NEIGHBORING COUNTIES.

Jackson county shall honor any protection buffers that are placed around specified areas by neighboring counties, should that buffer extend into our county.

SECTION 12. PERMITS.

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

SECTION 13. REPEALER.

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

SECTION 14. 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 15. 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 #282 of Jackson County, Iowa.

SECTION 16. 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 _____ 2025.

Mike Steines, Chairperson
Jackson County Board of Supervisors

Attest: _____
Alisa Smith, County Auditor

Working DRAFT 12/16/2024