

**WORTH COUNTY ORDINANCE 2022.06.27**

**AN ORDINANCE REGULATING THE CONSTRUCTION AND  
OPERATION OF COMMERCIAL WIND ENERGY CONVERSION SYSTEMS  
IN WORTH COUNTY, IOWA**

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## Introduction

This Ordinance is to provide an orderly process for regulating the development and operation of large-scale commercial wind farm projects in the unincorporated areas of Worth County. Because of the significant, long-lasting impacts on the County's residents and infrastructure resulting from such projects, the Worth County Board of Supervisors believes that it is in the public's best interest that the Supervisors retain the final authority over the issuance of a Permit for these type projects.

## Purpose and Intent

1. The purpose of this ordinance is to establish minimum requirements and regulation of entities engaged in the construction, erection, placement, location, maintenance, modification, and operation of commercial/industrial wind energy projects in Worth County.
2. The intent is to provide development of commercial wind projects in a fair and balanced manner, consistent with principles of safety, general welfare and preservation of private property rights of current and future landowners in Worth county. The goal is to ensure wind development sites are appropriately located to preserve and protect the safety and general welfare of the public; the character, image, and stability of Worth County's residential, tourism, recreational, agricultural, commercial, industrial, and other areas; the county's important and sensitive environmental and ecological assets and areas, open space, viewscales, aesthetics, and wetlands; and avoid nuisance forced on Adjacent Properties, as well as ensuring against public taking of the enjoyment of personal property.
3. These regulations have been developed in consideration of impacts and needs for all stakeholders, including present residents, Landowners, businesses and developers, and future generations. It is intended to be in accordance with the Comprehensive Development Plan for Worth County. That plan calls for implementation of guidance and regulation designed to preserve the agriculture nature of the county and to protect health and the general welfare, which is understood to include; protection individual property rights that don't abridge other property owner rights; to prevent overcrowding of land; to provide recreational areas; to protect the finite natural and historic resources and fragile ecosystems of Worth County including forests, wetlands, rivers, streams, lakes and shorelines, aquifers, prairies, and recreational areas and other public requirements; to support intelligent protections for threatened or endangered species native to the county.

## Jurisdiction and Scope

1. This ordinance is adopted by the Worth County Board of Supervisors governing all lands within the unincorporated areas of Worth County, Iowa. Commercial Wind Energy Conversion Systems (C-WECS). (See definition of C-WECS) may only be installed on lands encompassed in zoned townships within Worth County in zoned districts that provide for such conditional use, and lands outside the zoned townships which have a land use classification for tax purposes of Agriculture or Commercial. This ordinance and its provisions shall not apply to those properties or projects occurring within the incorporated cities in Worth County.
2. The requirements of this Ordinance shall apply to all Commercial Wind Energy Conversion System (C-WECS) proposed after the effective date of this Ordinance. A proposed C-WECS is



any C-WECS that has not been issued a conditional use permit under existing county Zoning Ordinance, or one which is not the subject of a development agreement with the county and has not begun construction, as of the date of the Worth County Temporary Moratorium under Resolution 2021.04.05. A C-WECS for which a required permit has been issued under rules in effect prior to the date Resolution 2021.04.05 and for which all necessary Agreements has previously been signed by the Worth County Board of Supervisors prior to the effective date of that Resolution shall not be required to meet the requirements of this Ordinance; provided, that any such pre-existing C-WECS, which does not provide energy for a continuous period of twelve (12) months after the Resolution, shall meet the requirements of this Ordinance prior to recommencing production of energy. Also, no modification or alteration to an existing C-WECS that alters the size, structure or capacity of an existing C-WECS shall be allowed without full compliance with this Ordinance.

A. A waiver of requirements specified herein shall apply exclusively to Worthwhile Wind Project during the 12-month period beginning on date of approval of this ordinance. If Worthwhile Wind submits an application for permit within the 12-month period beginning on date of approval of this Ordinance, the project shall not be required to have reviews conducted as specified in Section III.2 for the following agencies, provided these agencies have already conducted a review and provided their comments in a two-year time period outside that specified by Section III.2.

- 1) Iowa Department of Transportation
- 2) Iowa State Archeologist Office
- 3) U.S. Department of Agriculture (Local FSA and NRCS)
- 4) U.S. Department of Energy (Wind Energy Technology Office)
- 5) U.S. Environmental Protection Agency
- 6) U.S. Fish and Wildlife
- 7) U.S. Army Corps of Engineers
- 8) U.S Bureau of Land Management

3. No construction activities on a C-WECS Project may begin until a C-WECS Permit has been issued, except meteorological towers as permitted in Section III.1.

4. Any material violation of any provision of this Ordinance that remains uncured after thirty (30) days' written notice from the County to the Permit Holder shall be grounds for revocation of the C-WECS Permit.

5. If construction on a Permitted Project has not begun within 18 months from the date of issuance of the C-WECS Permit, the C-WECS Permit shall be automatically revoked without further action by the County. In such event, no work on the Project may take place unless and until a new C-WECS Permit is issued, and any portion of the Project then completed shall be deemed a discontinued use.

## Definitions

Terms not otherwise defined herein shall be consistent with definitions contained in the Worth County Zoning Ordinance.

**dB**A means decibels (measure of sound intensity or “strength”) as measured using an A-weighted filter (“centered” around 1000 Hz – thus when used discriminates against low frequencies; primarily measures in the 500-10K Hz range).

**dB**C means decibels (measure of sound intensity or “strength”) as measured using a C weighted filter (centered as zero) between 250 and 1000 Hz; unlike A-weighting, C-weighting does not discriminate against low frequencies and measures uniformly over the frequency range of 30-10K Hz).

**dB**G means decibels (measure of sound intensity or “strength”) as measured using a G weighted filter for frequencies up to 40 hz.

**Adjacent Property** means the property beyond the property line of Turbine Hosting Land (THL) which is or may be impacted by sound of operating C-WECS, Shadow Flicker, or danger from falling debris from a C-WECS on the THL.

**Agreement** shall mean a written contract that legally binds the signatory parties to the terms of the contract.

**Applicant** shall mean the business entity that is planning the project and legally responsible to ensure compliance with criteria established herein, has authority to legally commit the business entity to terms consistent with this Ordinance and which shall be the entity to submit the applications specified by this Ordinance.

**Ambient Noise** shall mean the background sound pressure level that is exceeded 90 percent of the time (190) at a given location measured with a sound level meter. It is measured in dB relative to a reference pressure of 20  $\mu$ Pa (micropascals. Ambient noise levels shall be measured using both A and C frequency weighting filters and without operational C-WECS within a 2.5 mile radius. The level of Ambient noise shall be determined for daytime (0600-2200) and nighttime (2200-0600) periods. The level of Ambient noise for each period shall be determined by the average of readings taken over a 10- minute period measured on three different days, and during times of varying wind and weather conditions, and ground level wind speeds not to exceed 12 MPH.

**Building Site** means an area of land in the County which has been designated for land use as a Building Site in tax records of the County and represented as such in the County GIS.

**Commercial Activity** mean an activity intended for exchange in the market with the goal of earning an economic profit.

**Commercial Entity** means any corporation, partnership, limited partnership, proprietorship, sole proprietorship, firm, enterprise, franchise, or association that performs a commercial activity in this state.

**Commercial Wind Energy Conversion System (“Commercial WECS” or “C-WECS”)** shall mean the equipment that converts and then stores or transfers energy from the wind into usable forms of energy and includes any base, blade, foundation, generator, nacelle, rotor, tower, transformer, turbine, vane, wire, or other component used in the system., that is developed, owned or operated by a Not-for-Profit Organization or Commercial Entity for the purpose of producing electricity for sale to a rate regulated or nonregulated utility or for use off site.



**Components** shall mean all of the physical facilities comprising a C-WECS; including Turbines (i.e. – the Tower, nacelle, hub, motor, and blades), Turbine foundations, transformers, crane pads, Feeder Lines, Energy Storage Systems and any accessory buildings and equipment. Components shall include any substations that are constructed in conjunction with a Commercial WECS Project.

**Confinement Feeding Operation Building** shall have the same meaning as found in Iowa Code 459.102(15)

**Daytime** shall mean the period of time between 6:00 AM and 9:00 PM (0600-2100) local time.

**Developer** means a commercial entity that owns legal interest by purchasing or leasing land for the purpose of installing meteorological equipment to quantify the wind resource, and securing transmission, power sales, turbine supply, construction, and financing agreements in support of a C-WECS Project

**Easement** A legal interest in land, as defined in a document recorded in the office of the 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, including, but not limited to, access or placement of utilities.

**Effects Easement** means an Easement that specifies any and all effects such as, but not limited to sound, shadow, vibration, air turbulence, electromagnetic interference, visual impact or other such results on, over, under or across any or all of the Landowners property from the operation of a C-WECS, and which specifies the granting of such rights from the Landowner to the Developer

**Energy Storage System** means a system that that assists in converting electrical energy from power systems into a form that can be stored for converting back to electrical energy and which captures energy produced at one time, stores that energy for a period of time, and delivers that energy as electricity for use at a future time.

**(fast)** – means a value measured by a specific type of sound level (dB) meter. “Fast” reflect the type of meter (fast, slow or impulse) and corresponds to a 125 msec time constant (precise collection interval (in msec) used by meter). Such sound meters are standardized, are readily available and, like A and C weighting, are “standard” on acoustical measuring equipment.

**Feeder Line** shall mean any above or below-ground line that carries electrical power from one or more Turbines.

**Human Occupiable Building** shall mean any building that is structurally sound, available, and designed for use by people. In includes, without limitation, such things as office buildings, churches, schools, houses, stores, green houses, barns, workshops, or garages, regardless of whether the building is occupied at any given time. This definition is not meant to encompass Confinement Feeding Operation Buildings or abandoned buildings that would require structural repairs (i.e load bearing repairs for safety) prior to being able to be occupied. To meet the definition of Human Occupiable Building the structure must also be located on land that is not located on land designated by the county as Crop Land use for tax purposes.

**IDNR** Means Iowa Department of Natural Resources



**IDNR Identified Eagle Nesting Site** shall mean the sites identified on the Iowa Department of Natural Resources Website as a location of an eagle nest.

**ILFN** Refers to Infrasound Low-Frequency Noise. This includes "infrasound" (0-20 Hz) combined with "low-frequency" sound (20-200 Hz) when referring to noise emissions on the lowest range of the sound spectrum.

**Landowner** means a person or Commercial Entity that has ownership rights of land and is listed on the tax assessment roles as responsible for tax payments on the property.

**Lmax** - means "maximal sound level" and is a descriptor of the highest sound for the noise source under test.

**Manufacturer Safety Distances** shall mean the distance specified by the manufacture for the specific design of each wind turbine to address common events of things such as fire, lightning strike, damaged blades, fall zones, blade throw zones (based on average rotation speed), Ice Throw, or danger from uncontrolled blade rotation. Since each of these may have varying distance specifications, Manufacture Safety Distance shall be equal to the largest of the distances specified among the individual conditions.

**Meteorological ("MET") Tower** shall mean a tower which is erected primarily to measure wind speed and directions, plus other atmospheric/weather data relevant to siting and operating a Wind Energy Conversion System. Meteorological towers do not include towers and equipment used by airports, the Iowa Department of Transportation, or other applications to monitor weather conditions.

**Nighttime** shall mean the period of time between 9:00 PM and 6:00 AM (2100-0600) local time.

**Not-for-Profit Organization** means a non-profit organization is a group organized for purposes other than generating profit and in which no part of the organization's income is distributed to its members, directors, or officers.

**Occupied, Non-residential Building** shall mean any building (other than a residence) that is regularly occupied by humans, and that is open to the public, sells goods or services, or a public, religious, or other non-profit institution.

**Occupied Residence** shall mean a building designed for, and actually occupied on a permanent basis as, an abode.

**Permit** means a written order issued by the County that specifies permission and conditions for construction of a C-WECS in accordance with this Ordinance.

**Permit Holder** Shall mean the business entity which assumes all responsibility and authority for the C-WECS project that is encompassed in the C-WECS Permit issued by Worth County for purposes of constructing, operating and maintaining the C-WECS through the completion of decommissioning activities in accordance with the Ordinance.

**Project** shall mean an electrical generating project designed as an integrated system of C-WECS's, the Components and individual C-WECS of which are installed as a group under a common construction effort and managed under a single Developer and set of Permits and Agreements within the county.

**Project Area** shall mean the geographic area encompassing all Turbines and associated Components of a Commercial WECS Project.



**Property Line** shall mean the legal boundary between separately-owned real estate parcels, and between privately-owned parcels and publicly-owned land or public right-of-way.

**Protected Area** shall mean the list of items contained in the first column on the left of Table 1 in Section I.

**Public Conservation Areas** shall mean land owned by County, State or Federal agencies and managed for conservation/preservation purposes, including but not limited to Wildlife Management Areas, Conservation Areas, , Preserves, Wildlife Refuges, Waterfowl Refuges and Waterfowl Production Areas as defined by Iowa Department of Natural Resources (IDNR). For purposes of this regulation, Public Conservation Areas also include land owned by non-profit conservation organizations and other privately-owned lands upon which permanent conservation easements have been granted to public agencies or non-profit conservation organizations. Public Conservation Areas do not include land enrolled in the Conservation Reserve Program.

**Public Recreation Area** shall mean parks, public hunting land and other such areas that have been set aside by the county, state or federal government for use and enjoyment by the public, but which do not meet the definition of Public Conservation Area

**Rotor Diameter** shall mean the diameter of the circle described by the Turbine's moving rotor blades.

**Setback** shall mean the minimum distance that a Tower, as part of a C-WECS, shall be established from a stated object such as property line, building, Right of Way or other items as subsequently specified in this ordinance. Distance shall be measured between the points at which the tower and other object are closest to each other along a straight line.

**Shadow Flicker** shall mean the alternating changes in light intensity caused when the blades of an operating wind energy conversion unit pass between the sun and the ground or other objects resulting casting a readily observable, moving shadow across the ground or other objects.

**Supervisory Control and Data Acquisition (SCADA)** is a system of software and hardware elements that allows industrial organizations to: Control industrial processes locally or at remote locations, monitor, gather, and process real-time data, directly interact with devices such as sensors, valves, pumps, motors, and more through human-machine interface (HMI) software, record events into a log file.

**Significant Bodies of Water** shall mean all lakes and ponds in the county that fall under management purview of county, state, or federal agencies, along with named rivers, streams and creeks that are not solely designed as field drainage.

**Tenant** means a person or Commercial Entity that holds a legal lease on the property extending specific rights to the use of the land by the Tenant.

**Total Height** shall mean the highest point above ground level reached by a rotor tip or any other part of a Turbine.

**Tower** shall mean the vertical structure that supports the electrical generator, rotor blades, or meteorological equipment.

**Tower Height** shall mean the total height of a Turbine inclusive of the Nncelle, exclusive of the rotor blades.

**Turbine** shall mean any piece of electrical generating equipment that converts the kinetic energy of blowing wind into electrical energy using airfoils, blades, or similar devices to capture the wind.

**Turbine Hosting Land (THL)** means the land upon which a C-WECS Turbine is installed

**Viewscape** means the scene of natural landscape observed by an individual when viewed from a position on the ground or in their home.

**Visual Resources** means the natural character of the county including the topography, waterways, wetlands, scenic views, natural vegetation and wooded areas.

**Waiver** shall mean a decision made and documented by the County Zoning Board of Adjustment, supported by required additional documentation as specified by this Ordinance, which serves to allow a condition not otherwise allowed by this ordinance.



## Section I – Siting and Design Standards

These shall be considered minimum design standards and setbacks. The Board of Supervisors may increase these minimums during review and approval if circumstances warrant, based on factors taken into consideration due to the unique nature or extenuating circumstance of any particular project or site. The Board of Supervisors may not reduce these design standards or setbacks beyond those provided for herein via defined waivers.

### I. Setbacks

A. All Turbines and Project substation designs shall observe the design standards and setbacks described in this Section I. All measurements shall be from the edge of the of the Tower (or from the nearest above-ground non-fence structure at a substation site) nearest to the point being measured to, to the nearest point on any building; or to the nearest Property Line, easement line, zone district boundary, or boundary of any other Protected Area of each of the types of items specified in Section I.1.

B. Physical setbacks specified in Table 1 are to be considered minimum distance requirements to accommodate safety of personnel and property. They may be waived in accordance with procedures established in subsection I.4. Other standards expressed in Subsections 2 and 3 of this Section I and stated elsewhere throughout this Ordinance may require additional physical distances in order to be compliant with those standards.

**Table 1, Setback distances**

<u>Protected Area</u>	<u>Setback Requirement</u>
Adjacent Property Lines	The greater of 1.25 times the Total Height, or Manufacture Safety Distances
Building Site Property Lines	The greater of 1600 feet or 3.75 times the Total Height, or Manufacture Safety Distances
Human Occupiable Buildings	The greater of 1600 feet or 3.75 times the Total Height, or Manufacture Safety Distances
Confinement Operation Feeding Buildings	The greater of 1.25 times the Total Height, or Manufacture Safety Distances
Utility line and railroad easements	The greater of 600 feet 110% of total height
Public Road Right-of-Way	The greater of 600 feet or 110% of the Total Height
Public Drainage District Open Ditch Right-of-Way	The greater of 600 feet or 110% of the Total Height
Public Drainage Buried Tile (centerline)	The greater of 600 feet or 110% of the Total Height
Public Recreation Area	½ mile
Public Conservation Area	1 Mile
Significant Bodies of Water that do not fall under Public Recreation Area	½ mile

or Public Conservation Area definitions	
Woodland or Grassland habitat greater than 40 acres that is not a Public Conservation Area	½ mile
Iowa DNR recognized Eagle nest	1 mile
Zoning district boundaries	The greater of 1.25 times the Total Height, or Manufacture Safety Distances

C. During the construction phase, C-WECS Permit Holders are required to verify exact location of each Towers via GPS and provide certification to the Board of Supervisors that the installed location is fully compliant with the Setback requirements specified for each Tower as defined by the Permit.

## 2. Airport Setbacks

A. The following landing areas shall be considered for purposes of this ordinance Airports if, prior to the initial filing date of the Notice, are in operation or to which a sponsor has submitted to the Federal Aviation Administration (“FAA”) a valid application for Certificate of Site Approval as set forth in Iowa Administrative Code Rules 761-720.4 and 761-720.5:

- 1) a public-use airport as defined in Iowa Code Sections 329.1(1) and Iowa Administrative Code Rule 761-720.2; or
- 2) a private-use airport as defined in Iowa Code Section 329.1(1) and Iowa Administrative Code Rule 761-720.2 that had: (i) begun filings for or obtained all necessary local, state, and federal approvals to construct and operate as a private-use airport; and (ii) received an airport identification assignment from the Federal Aviation Administration (“FAA”) pursuant to Federal Aviation Regulations Part 157.

B. The setback distance for Airports shall be governed by the rules and regulations of the Federal Aviation Administration (“FAA”) and/or any laws or rules of the State of Iowa that are applicable. Without regard to the aforementioned FAA or state requirements for distance, no turbine shall be erected within a 3 nautical mile radius of any airport or proposed airport that has begun filing for approval per Section I.2.

C. If the setback restriction is due to a valid Certificate of Site Approval, then the airport shall be in operation within the initial validation period (2 years) or it shall no longer be considered an Airport subject to the setback within Section I.2.

D. First in Time, First in Right. An Applicant’s filed Notice that pre-dates a valid Certificate of Site Approval, or filings per Section I.2.A.2), shall not be subject to the setback within this Section I.2.

E. It is the express intention of the Board of Supervisors to allow for the future expansion and construction of both public and private airports and C-WECS Projects within the county while providing for the protection of the lives and property of users of both public and private airports and of occupants of land and other persons in its vicinity.



### 3. Other Standards

A. 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. Exceptions may be made for meteorological towers, where concerns exist relative to aerial spray applicators.

B. Tower configuration. All wind Turbines, which are part of a commercial WECS, shall be installed with a tubular, monopole type tower. Reinforced concrete Towers shall not be permitted in Worth County. Meteorological towers may be guyed.

C. Lighting. C-WECS sites shall not be artificially lighted, except to the extent required by the FAA or other applicable authority. Each project shall be designed, constructed, and operated with operational Aircraft Detection Lighting Systems (ADLS) to reduce the impact of nighttime lighting on nearby communities and migratory birds. The ADLS system shall be in accordance with the guidance set forth in the current edition of the Federal Aviation Administration Circular AC 70-7460, Obstruction Marking and Lighting. Lighting, including lighting intensity and frequency of strobe, shall adhere to but not exceed requirements established by Federal Aviation Administration permits and regulations. Red strobe lights are preferred for night-time illumination to reduce impacts on migrating birds. Red pulsating incandescent lights should be avoided. Exceptions may be made for meteorological towers, where concerns exist relative to aerial spray applicators.

D. Signage. All Turbine sites shall be required to have individual 911 rural address signs at each access road. All other signs except those required for safety and directional purposes (or otherwise authorized by the County) shall be prohibited in the Project Area.

E. Feeder Lines. All communications and feeder lines, equal to or less than 34.5kV in capacity, installed as part of a C-WECS shall be buried.

F. Waste Disposal. Solid and hazardous wastes, including but not limited to crates, packaging materials, damaged or worn parts, Components, as well as used oils and lubricants, shall be removed from the site and disposed of in accordance with all applicable local, state and federal regulations.

G. Minimum Ground Clearance. The blade tip of any Wind Turbine shall, at its lowest point, have ground clearance of no less than seventy-five (75) feet.

H. Signal Interference. The applicant shall minimize and mitigate any potential interference with electromagnetic communications, including, but not limited to, Global Positioning Satellite (GPS) reception, weather or navigation radar, radio, telephone, cell phone or television signals caused by any C-WECS. The Applicant shall be responsible for resolution of substantial electrical interference issues caused by operation of the C-WECS.

I. Agency Permits. The applicant shall comply with all applicable permits issued to the project. Where differences in permit requirements may conflict, the conflict shall be brought to the attention of the Zoning Administrator and no further actions taken with regard to conflicting activities/guidance until the Zoning Administrator has agreed that the conflict has been resolved.



The Applicant has responsibility for coordinating with the agencies that issued the permits to resolve the conflict.

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

K. Sound. Prior to final design and siting decisions, the combination of Turbine design and siting considerations shall be analyzed by the Applicant for a design goal of no LMAX (fast) measured sound produced by the operation of Turbine to be greater than the levels specified below in subsection 1) at the Human Occupiable Buildings, and property line of Building Sites within one and one half miles of a Turbine.

- 1) Sound emissions from the Turbine operations shall not exceed the following limits.
  - a. On the property of a THL Landowner from the outside edge of a turbine to the nearest outside edge of any Human Occupiable building; 50 dBA Lmax (fast) Daytime or Nighttime noise, and 65dBC Lmax (fast) Daytime or Nighttime noise, and 60dBG Lmax(fast) daytime or Nighttime noise. This requirement is void if the Landowner has previously signed an effects easement that eliminates their right to enforce noise limits as part of the agreement to host a Turbine on their property.
  - b. At the Human Occupiable Building of an Adjacent Property; No measured sound above 45dBA Lmax (fast) and 60dBC Lmax(fast) and 85dBG Lmax(fast) during Daytime periods and no measured sound above 35 dBA Lmax (fast) and 50dBC Lmax (fast) and 60dBG Lmax(fast) during Nighttime periods.
  - c. At the Building Site of an Adjacent Property; No measured sound above 45dBA Lmax (fast) and 60dBC Lmax(fast) and 85dBG Lmax(fast) during Daytime periods and no measured sound above 35 dBA Lmax (fast) and 50dBC Lmax (fast) and 60dBG Lmax(fast) during Nighttime periods.
- 2) 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 above shall be reduced by five (5) dBA/dBC.
- 3) In the event the Ambient noise level (exclusive of the construction of the C-WECS activity) exceeds the applicable standards given above, the applicable standard shall be adjusted so as 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 or dBC, which is succeeded for more than five (5) minutes per hour. Ambient noise levels shall be measured at the Property Line for Building Sites and exterior of potentially affected Human Occupiable Buildings. 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.
- 4) The Applicant shall establish an escrow account of \$25,000 to address Noise complaint testing. All testing shall be paid for from this account, except that noise complaints once

investigated that find the Turbine is in compliance with Section I.3.K above, the person submitting the noise complaint shall cause the escrow account to be reimbursed. The escrow account for noise complaint shall expire 3years after the last Turbine in the project is made operational. Section VI.2 contains additional detail related to noise complaints.

- 5) In the event of a noise complaint, noise from the Turbine, measured at the locations specified in Section I.3.K.1) that exceed either of the limits specified in Section I.3.K.1) through I.3.K.3) will be noncompliant and be required to be removed from operation until such time as the noise complaint is resolved.

L. Shadow Flicker.

- 1) No Occupied Residence of a THL Landowner will experience more than thirty (30) hours per year, or more than thirty (30) minutes per day, of Shadow Flicker.
- 2) No shadow flicker shall be experienced at the Human Occupiable Building of an Adjacent Property, or property line of an adjacent Building Site, of a non-Turbine Hosting Landowner.

M. Fire Suppression. All Turbines and substations shall be equipped with operational automatic fire suppression. The fire suppression systems shall be designed appropriate to the materials and conditions present in the Turbine 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 system shall be installed in accordance with state and federal standards and inspected by a state fire marshal prior to operation. Such fire suppression equipment shall be tested and verified operation on an annual basis by personnel certified for such validation by an independent third-party.

4. Waivers

A. The setbacks specified in Section I.1 and Section I.2 may be reduced via approved Waiver to the extent defined below, provided it meets the Waiver terms specified in Section I.4.C through I.4.E.

- 1) Adjacent Property Line – to not less than 110 percent of the Total Height of the Turbine.
- 2) Building Site Property Line - to not less than 125 percent of the Total Height of the Turbine.
- 3) Human Occupiable Building - to not less than 125 percent of the Total Height of the Turbine.
- 4) Confinement Operation Feeding Building - to not less than 110 percent of the Total Height of the Turbine.
- 5) Private-use airport – to one half mile.

B. Only the following Other Standards may be the subject of a Waiver, provided it meets the Waiver terms specified in Section I.4.C through I.4.E

- 1) Shadow Flicker
- 2) Sound

C. To apply for a Waiver, the Applicant must provide the Zoning Administrator with:



- 1) A recordable instrument signed by all owner(s) (or the controlling governmental entity) of the Adjacent Property that specifically identifies the nature and extent of the Waiver.
- 2) A copy of the Effects Easement that has been filed with the County Recorder that shows the burden on the property (e.g. safety danger, sound Shadow Flicker, etc.) and which advises all subsequent owners of the burdened property of limits other than of those permitted by this Ordinance. The Easement will clearly state all rights and effects that are being released and granted.

D. A Waiver may only be granted after review of the application for Waiver by the Board of Adjustment. The Board of Adjustment will review and adjudicate each Waiver request by following the Variance procedures and rules defined in the Worth County Zoning Ordinance in effect at the time, regardless of the township in which the Waiver is sought.

E. A Waiver shall not alter any other non-waived requirement than that specifically allowed by this ordinance and approved by the Board of Adjustment.

F. All requests for Waivers shall be submitted to the Zoning Administrator and adjudicated by the Board of Adjustment prior to submission of any C-WECS Permit application.

#### 5. Height, Spacing, Project Size Limitations

A. Height. The Total Height of any Turbine shall not exceed 500 feet.

B. Project Size. No Project shall have more than 75 total Turbines.

#### 6. Safety

A. All Turbine sites shall have individual 911 rural address signs at each access road. Placement of other signs by Applicant except those required for safety and directional purposes, or as required herein or otherwise authorized by the county, shall be prohibited in the project area. Applicant shall ensure that directional signs are removed on conclusion of construction.

B. Wind Turbine towers shall not be climbable up to fifteen feet above ground level.

C. Access doors to all equipment on each site shall be locked unless being serviced.

D. Appropriate 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. For all guyed 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 eight (8) feet above the ground. Visible fencing shall be installed around anchor points of guy wires.

G. Each C-WECS shall be equipped with both a manual and automatic braking device capable of stopping the C-WECS operation in high winds within 80% of design limits of the braking system.

H. Signs displaying emergency contact information in case of fire must be posted.



I. Applicant shall work with the leadership of the city and county agencies responsible for emergency response for all areas encompassed by the proposed C-WECS Project to ensure that rescue authorities have sufficient knowledge, training, and equipment sufficient to implement or assist in emergency response and/or rescue during an incident associated with construction or operation of C-WECS or Meteorological towers. All new or refresher training or equipment specifically required to meet unique needs associated with C-WECS construction or operation will be at Applicant expense. The leadership of each city or county agency shall have purview and authority to determine the suitability of training and equipment of their responders and rescue personnel.

J. Any emergency fire/rescue action expenses incurred by local authorities will be chargeable to Permit Holder so that county funds are not required to cover expenses related to response actions.

K. All Turbines shall be equipped with ice sensors and Permit holders shall ensure that the turbines are programmed to automatically stop when ice is detected. Turbines shall not be allowed to operate until free of ice and danger of ice throw has passed.

## Section II – Notice of Intent to Construct a C-WECS Project

### 1. Notice Submission.

A Notice of Intent to Construct is not a required activity. However, in recognition of the length of time necessary for completion of planning and preparation of a C-WECS project, and to recognize that competing plans for future land use may also be in progress, this section provides for filing a Notice of Intent to Construct prior to the submission of a C-WECS Permit Application. This is to provide a means for applicants to exercise the principle of First in Time, First in Right. If such Notice to Construct is filed, the Notice shall include the following:

- A. The name, address, and telephone number of the Applicant and its authorized representative(s).
- B. A map of the Project Boundary. The Project Boundary shall be defined as the outermost perimeter of the Project.
  - 1) The map shall visually depict a three (3) mile area from the Project Boundary and shall identify any public or private-use airports as defined herein within three (3) miles of the Project Boundary.
  - 2) The map shall distinctly mark the sections or parcels of land that is anticipated to be used by the project.
- C. Evidence of legal control of at least seventy-five percent (75%) of the land within the project boundary. Evidence sufficient to satisfy this requirement includes publicly recorded memorandum of an easement or option agreement or written approval from the Landowner and Tenant (if any Tenant lease exists) of the property that the Applicant may seek a C-WECS Permit for their property.
- D. An estimated commencement of construction date and the estimated length of construction.

### 2. County Review and Right to Amend

- A. Upon receiving a filed Notice, the Worth County Zoning Administrator shall have a period of thirty (30) days to review and approve the filing.
- B. If the Zoning Administrator determines that the notice lacks the required information provided in Section II.1, then the Zoning Administrator shall provide the Applicant's authorized representative written notice of the deficiency. The Applicant shall then have the opportunity to refile the Notice within forty-five (45) days. If an Applicant refiles its Notice pursuant to this subsection, the initial filing date shall be deemed to be the effective date of the Notice.
- C. A Notice may be amended no more than four (4) times during the review specified in Section II.2.B so long as it complies with the required information within Section II.1 above, and the amended Notice shall be considered effective as of the date of the initial filing with the Worth County Zoning Administrator.
- D. The Worth County Zoning Administrator shall provide written acknowledgement of receipt and Acknowledgement of the Notice to the Applicant once it has been determined that all information is sufficient per Section II.1



E. An Applicant may assign the rights and privileges of its Notice without the approval of the County so long as the assignee is a parent or wholly owned affiliate of the Applicant, and the Worth County Zoning Administrator is notified in writing of the transfer. Such notice shall ensure that updates are made to information required by Section II.1.A.

F. No other changes to the details of the project that were provided in the Notice per Section II.1 are allowed. If such changes are necessary, a new Notice shall be filed.

### 3. Public Notice of Intent to Construct

The Worth County Zoning Administrator shall cause a public notice of the Intent to Construct in newspapers of record in the county and post the Notice of Intent to Construct on the Zoning page of the County Website. The public Notice shall include a map of the Project showing details as specified in Section II.1.B, as well as details received by Section II.1.D.

### 4. Time Limits

A. A Notice of Intent to Construct shall not be filed earlier than eighteen months prior to the estimated time that a C-WECS Permit application is expected to be filed.

B. The Notice of Intent to Construct shall expire 18 months after issuance and all rights associated with the First In, First Right shall also expire and be void unless a permit application has been filed during that 18 months. A new Notice with updated construction commencement date information may be filed if desired.

### 5. Changed Scope

A. In the event that during the course of planning, after a Notice has been approved, the potential project boundary changes, or more than the 10 percent of the impacted land that was included in the Notice changes, as measured against the specific sections identified in the original Notice, then the Applicant shall file an update to the Notice. Such filing will be managed in a manner consistent with the terms of this Section II in its entirety, as if it were a new Notice.

B. Failure to comply with the terms of Section II.5 will have the effect of nullification of any rights associated with a Notice if the nature of the potential project changes to the degree specified in Section II.5.A.

## Section III - Permit Application and Review

### 1. General

A. Before any construction activities related to a Commercial Wind Energy Conversion System can begin in Worth County, a **C-WECS Permit** must be issued by the County and applicable Agreements per Section VIII must be signed by all necessary parties. For purposes of this paragraph, the installation of MET Towers associated with a potential C-WECS shall not be deemed construction activities requiring a C-WECS Construction Permit; provided that any such tower must be installed in compliance with all other applicable county Ordinances and regulations.

B. Each Turbine shall require an individual permit, although the collection of Turbines included in a project may be submitted as a collection within the Permit Application.

### 2. Agency Notification

The Applicant of the commercial WECS proposed project shall provide notice of the project to the following agencies not less than 120 days prior to the projected date of the submission for a C-WECS Permit. Documentation of the required notifications is to be provided to the Zoning Administrator simultaneously with the notifications to the agencies listed below. The notice to agencies shall include sufficient information describing the location and extent of the proposed project Turbine locations and sizes to allow the agencies to conduct a preliminary review and respond with findings and recommendations related to the project. The Applicant shall ask the agencies for their review and recommendations (if any) with regard to the project and provide copies of such reports received from the agencies to the Zoning Administrator as they are received. The Applicant shall attempt to resolve any issues or concerns raised by the agencies prior to the application for the C-WECS Permit.

A. Worth County Engineer's Office (Impact analysis and recommendations related to county infrastructure)

B. Worth County Conservation Board (Impact analysis and recommendations related to Public Conservation Areas and Public Recreation Areas in the County)

C. Worth County Board of Health (Impact analysis and recommendations related to county health)

D. Worth County Sheriff (Impact analysis and recommendations related to county communications)

E. Local EMS Fire and Rescue Departments (Impact analysis and recommendations related to county emergency response)

F. Iowa Utilities Board (Assessment of project relative to IUB rules)

G. Iowa Department of Natural Resources (Impact analysis and recommendations related to natural resources within the county)

H. Iowa Department of Transportation (Impact analysis and recommendations related to state infrastructure within the county)

I. Iowa State Archeologist Office (Impact analysis and recommendations related to potential areas of archeological interest in the county)



- J. U.S. Department of Agriculture (Local FSA and NRCS) (Impact analysis and recommendations related to county agricultural and conservation interests in the county)
- K. U.S. Department of Energy (Wind Energy Technology Office) (Impact analysis and recommendations related to US DOE Policy and environmental impacts)
- L. U.S. Environmental Protection Agency (Impact analysis and recommendations related to US EPA Policy and environmental impacts)
- M. Federal Aviation Administration (Impact analysis and recommendations related to airfields and helicopter landing sites and proposed airfields and helicopter landing sites in the county)
- N. Federal Communications Commission (Impact analysis and recommendations related to electromagnetic communications in and adjacent to the county)
- O. U.S. Fish and Wildlife (Impact analysis and recommendations related to protected species and habitat)
- P. U.S. Army Corps of Engineers (Impact analysis and recommendations related to US ACE-managed land in or adjacent to the county)
- Q. U.S. Bureau of Land Management (Impact analysis and recommendations related to US BLM-managed land in or adjacent to the county)
- R. National Weather Service (Impact analysis and recommendations related to weather radar in the region)
- S. Any other agency determined by the Zoning Administrator to be appropriate

### 3. Pre-Application Informational Conference and Meeting

A. When a commercial WECS development is being considered, the Applicant shall conduct a pre-application informational conference on said development as a means of communicating the intent and specifics of the proposal to County Zoning Administrator and other interested persons. The pre-application informational conference is a two-part process and shall be held not less than 60, nor more than 90 days, prior to the projected date of the submission of the application for a C-WECS Permit.

B. Stage one is the pre-application conference which is to be used as an information exchange between the Applicant of the project and the Zoning Administrator to ensure that each understand the project scope, bounds, requirements, and subsequent actions and schedule

- a. The Applicant shall provide a review of project details during the conference, sufficient to answer any questions of the Zoning Administrator.
- b. The Zoning Administrator shall provide a review of the application requirements and the county review and approval process, sufficient to answer any questions of the Applicant.

C. Stage two shall consist of a public meeting to be used for public information and solicitation of public input. Applicants shall cause a notice of the time, date and location of the pre-application informational conference to be published in the official county newspaper at least once each of the two weeks prior to the date of the stage two meeting. The notice shall be not less than 1/8 of a page in the newspaper and shall include the name of the proposed project, a contact person for the Applicant, a map and description of the location of the proposed project



including proposed Turbine locations, the time, date and location of the conference, and a clear, concise description of the proposed project including number and total height of Turbines.

D. The Applicant shall be responsible for mailing a notice via United States Postal System to each landowner within 1 mile of any Turbine within the potential project, as well as to the owners of the Public Conservation Areas and all communication and other antenna identified in the potential project area.

E. The Applicant shall be responsible for setting up and conducting the pre-application informational conference, including providing the required public notice and shall provide documentation of same to the Zoning Administrator.

F. The pre-application informational conference and meeting shall each be conducted at a location convenient to interested persons in a facility adequate in size for the anticipated attendance.

#### 4. Application

The Worth County Zoning Administrator's office will supply an Application format to be used by any Applicant seeking a C-WECS Permit. Completed Applications shall be filed with the Worth County Zoning Administrator. Each Project shall require a separate Application. The Application shall contain:

A. The name, address, EIN of the Applicant, as well as the proposed owners or operators of the Project, including the contact information (name, address, telephone and email) of their authorized representatives. The Application shall designate the entity who will be the Permit Holder of the C-WECS Permit if different from the Applicant.

B. A list of the names and addresses of all property owners (i) located within the Project Area, and (ii) located within 5,280 feet of any Turbine in the Project. Said list shall be verified by the Worth County Auditor.

C. A Development Plan ("**Plan**") for the Project, which Plan shall contain aerial photographs of the entire proposed Project Area, showing the proposed location of the Turbines, private access roads, Feeder Lines, Substations and all other Components of the Project. The Plan shall show Property Lines and setback distances Specified in Section I, as well as all public roads and public drainage district facilities (i.e. – public ditches and underground tiles) in the Project Area. The Plan shall also identify any other Turbines, communication and radar antennae, and airports (including private airstrips) located within five (5) miles of the Project Area; and all lakes, permanent water courses, Other Significant Bodies of Water, IDNR Identified Eagle Nesting Sites and Public Recreation Areas and Public Conservation Areas within five (5) miles of the Project Area boundaries. In providing the above information, the Plan shall use a GPS coordinate system that is compatible with the County's geographical information and data systems. The Plan shall also include a mailing address for the owner of each communication and radar antennae identified.

D. Project details, including the name of the Project, and the anticipated number, type, generating capacity, Tower Height, Rotor Diameter, and Total Height of the Turbines.

E. Any FAA, FCC, or other state or federal permits or approvals that are necessary for the project. Applicant shall submit a copy of the actual permit application, or proof that the permit has been filed with the appropriate agency, along with proof of approval or permit.



F. Documentation of Applicant's legal control over the private property necessary for the Project, signed by the Landowner and Tenant (if any Tenant lease exists). Such legal control must vest in the Permit Holder of the C-WECS Permit at the time of its issuance.

G. Acknowledgement and compliance statement with Setback requirements in Section I.1 and Section I.2.

H. Acknowledgement and compliance statement with Other Standards requirements in Section I.3

I. Evidence and results of the sound analysis specified in Section I.3.K. Included in the assessment shall be a sound level contour map that represents predicted wind turbine equivalent sound levels represented with Lmax.

J. Documentation in legal agreement form that the Applicant and landowners within one half mile of each Turbine site has agreed to the terms related to sound complaint resolutions as specified in Section VI.2.B. in its entirety.

K. A description of the public roads anticipated to be used during all phases of construction, as well as for access to material storage sites and staging areas. As set forth in Section V below, before construction commences on a Project, all public road and public drainage district crossings must be provided to the County Engineer and approved for compliance with the County's Road Use and Public Drainage System Protection Agreements.

L. To aid in covering county costs associated with permitting and oversight of a C-WECS project over its lifetime, a permit fee equal to \$2,000.00 for each Turbine in the Project, to be paid upon approval of the C-WECS Permit by the Board pursuant to Section IV. A non-refundable fee of \$8,000.00 shall be paid upon submission of the application for permit to cover application processing and review by the county. In the event that permits are issued, this processing and review fee expense shall be deducted from the \$2,000.00 fee per permitted Turbine.

M. A copy of all recommendations or findings from agencies conducting reviews per Section III.2, along with documentation of actions taken by the Applicant as result of those reviews. Where recommendations from reviews were not followed, the Applicant shall specifically indicate why they were not, along with any pertinent extenuating or mitigating circumstances.

N. Any FAA, FCC, or other state or federal permits or approvals that are necessary for the Project. Applicant shall submit a copy of the actual permit, or approval from the appropriate agency.

O. Evidence in the form of a report prepared by a qualified third-party acceptable to the Board that the Project will not materially interfere with any existing commercial and/or public safety communication systems including radio, telephone, internet, GPS, microwave, or television signals.

P. A report prepared by a qualified third-party using the most current modeling software available establishing that shadow flicker will be compliant with Section I.3.L based on a "real world" assessment modeling. The report must show the locations and estimated amount of shadow flicker to be experienced at locations as a result of the individual Turbines in the Project.



Q. For any Waivers per Section I.4, a copy of Easements that have been filed in the Recorders office shall be provided as part of the application, along with documentation of Waiver approval by the Board of Adjustment.

R. A Decommissioning Plan pursuant to Section VII.1.B, along with evidence that decommissioning terms are present in THL Landowner Easements, sufficient for all decommissioning activities necessary to be performed.

S. All Agreements and Plans specified in Section VIII have been reviewed and conditionally approved by all parties. Permits Shall be contingent on each party having signed said Agreements once Permits have been approved.

T. An Incidental Take Permit shall be required in the event that a Turbine in the project is planned to be sited within Iowa DNR recognized buffer areas of any known habitat of a Federally designated Endangered or Threatened Species, or bald or golden eagle nesting site. A copy of the Incidental Take Permit(s) for Federally Endangered or Threatened Species, or a bald or golden eagle issued in compliance with the Endangered Species Act and the Bald and Golden Eagle Act shall be included with the Application. A copy of the Habitat Conservation Plan that corresponds to any Incidental Take Permit(s) shall accompany the copy of Permit(s).

U. A copy of an Incident Response Plan to be used by the Applicant and subsequent Operator.

V. An unredacted copy of all manuals and notices related to safety, operations, maintenance and emergency response procedures that are produced by the Turbine and substation manufactures shall be provided by the Applicant. The Applicant shall ensure that all safety-related information contained in this submission is readily obvious or highlighted for review by the Board of Supervisors in their consideration of permit approvals.

W. Enforceable acknowledgement of Condemnation Waiver per Section X.1

X. Such additional information as the County may request due to the unique circumstances with the Project. Applicants are encouraged to have on-going discussions with the County Zoning Administrator and Engineer during preparation of the Application.

## 5. Notice of Application Filing

A. No later than seven (7) days after filing the Application, the Applicant shall provide a notice once a week for two consecutive weeks of the Application filing in the newspapers of record in the county in substantially the following form:

### PUBLIC NOTICE

*Notice is hereby given that (name of applicant) has filed an Application with Worth County to build a commercial windfarm to be located in (list Township names and section numbers). The windfarm is projected to have \_\_\_\_\_ individual Turbines that will be \_\_\_\_\_ total feet high and each generate \_\_\_\_\_, (Kw or Mw) of electricity. The Application is currently being reviewed by the County. There will be a separate notice of the public hearing on the project.*

B. The Notice of Filing shall also be:

- 1) mailed by the Auditor to each landowner identified in the Application pursuant to Section III.4.B, and to each City located within one (1) mile of the Project Area; and



- 2) mailed by the Auditor to the owners of the Public Conservation Areas and all communication and other antenna identified in the Application.

C. All costs of producing and mailing of notices shall be paid by Applicant to the Auditor in advance.

#### 6. County Review

The Zoning Administrator shall promptly provide a copy of the Application and supporting documents to the Board of Supervisors. The Zoning Administrator and Board of Supervisors shall have thirty (30) days to review a completed Application to ensure adequate information and understanding and provide comments or questions to Applicant.

#### 7. Public Hearing

A. Upon completion of the County's review of the Application, the County shall set a public hearing to be held no later than thirty (30) days after the County review period. Representatives of the Applicant who are familiar with all aspects of the Project must be present at the public hearing.

B. Notice of the time and place of the public hearing shall be published and mailed by the Auditor in the same manner as the Notice of Filing in 5.A above. The costs of such publication and mailing shall be paid by the Applicant to the Auditor in advance. The purpose of the Public Hearing is to review the details of the plan, compliance with provisions of this ordinance, and public input of pertinent information relative to such compliance.

#### 8. Final Plan Submission

In the event any details related to the project have changed from what was submitted per Section III.4 as a result of County Review or Public Hearing, Applicant shall submit a Final Development Plan ("**FDP**") to the Zoning Administrator no later than sixty (60) days following the public hearing. The FDP shall show the final location of all Turbines and other Components, as well as final number, type, generating capacity, Tower Height, and rotor diameter comprising the Project. The FDP shall include any necessary updates associated with information required by Section III.4 and serve to establish the Project's intent for compliance with this Ordinance.

## Section IV – Review and Approval Process

### 1. Review and Approval

A. Recommendations on Application. Within 30 days of completion of the Public hearing per Section III.7, and submission of Final Development Plan per Section III.8 (if applicable), the Zoning Administrator shall prepare a report for the Board of Supervisors setting forth findings concerning the application's conformance to this Ordinance, and any recommendations for requirements or conditions to be imposed on the proposed development by the Board of Supervisors. The report shall be submitted along with the application and any other pertinent data to the Board of Supervisors at least fifteen (15) days prior to the hearing date for their review.

B. In the event the Application does not comply fully with any recommendations provided by agency reviews received pursuant to Section III.2, the Zoning Administrator shall highlight same in their report to the Board of Supervisors. Additionally, the Zoning Administrator shall highlight any mitigating or other circumstances that the Applicant has provided in leu of compliance with the recommendations.

### 2. Standards for Approval

A. The Board shall review the proposed development for conformance to the following development criteria:

- 1) Conformance. The project shall be constructed, arranged and operated so as to be conforming with the specifics and character this ordinance and the County Comprehensive Development Plan, and not to interfere with the development and use of adjacent property.
- 2) Transition. The development shall provide for a suitable transition, and if necessary, buffer between the proposed project locations and surrounding properties.
- 3) Traffic. The development shall provide for adequate ingress and egress, with particular attention to vehicular and pedestrian safety and convenience, traffic flow and control and emergency access.
- 4) Parking and Loading. The development shall provide all off-street parking and loading areas, and adequate service entrances and areas. Appropriated screening shall be provided around parking and service areas to minimize visual impacts, glare from headlights, noise, dust, fumes or other detrimental impacts.
- 5) Environmental Protection. The development shall be planned and operated in such a manner that will safeguard environmental and Visual Resources. The development shall not generate excessive noise, vibration, dust, smoke, fumes, odor, glare, or impact surface water, surface water run-off, or cause groundwater or surface water or soil pollution or other undesirable, hazardous or nuisance conditions, including weeds.

B. If the Board concludes that all terms of this ordinance will be met by the development, it shall approve the application and plans unless it concludes, based on the information presented to the Board, and/or information submitted at the public hearing, that if completed as proposed there is a strong probability the development will;



- 1) Not adequately safeguard the health, safety and general welfare of persons residing or working in adjoining or surrounding property, or
- 2) Unduly increase congestion in the roads, or hazard from fire, flood or similar dangers, or
- 3) Diminish or impair established property values on adjoining or surrounding property, or
- 4) Not be in accord with the intent, purpose and spirit of the Zoning Ordinance or Land Use Policies, or
- 5) Not meet the goals of the Iowa Department of Natural Resources with regard to protection of limited natural resources within the county.

C. In the event the Board finds deficiencies as described in Section IV.2.B, the Board may deny the application at-large, or provide approval with additional conditions that may or may not adjust the details of the project described in the Permit application.

### 3. Final Decision

A. Board of Adjustment decisions on waivers are final. Appeals to the decisions of the Board of Adjustment will be addressed via petition to court per Iowa Code §335.18 through §335.23.

B. The Board of Supervisors shall render a final decision on Permit Applications by Resolution. The Resolution shall specify denial or approval, along with any conditions or changes to the proposed project that are deemed necessary by the Board. The Resolution shall also serve as formal approval (and subsequent signing) of Agreements Specified in Section VII and conditionally approved during the Application Process per Section III.4.S. If the Application is approved (conditionally or otherwise), the Resolution shall direct the Zoning Administrator to issue a C-WECS Permit in accordance with any conditions specified in the Resolution.

### 4. Modifications After Approval

The location of Turbines and Components may be modified from the FDP when necessary to address exigencies encountered during construction, subject to the following limitations:

A. Any such modification shall remain subject to all setbacks and other requirements set forth in this Ordinance and the Ancillary Agreements; and

B. The location of Turbines and Project substations can only be modified from the FDP with approval of the Zoning Administrator if the proposed relocation is 300 feet or less and does not reduce any setbacks or standards beyond the limits stated in Section I; or, for modifications exceeding 300 feet, with the approval of the Board of Supervisors. Approval of a Turbine or Project substation modification by the Zoning Administrator or the Board of Supervisors shall be deemed an approved amendment to the FDP and also automatically amend the C-WECS Permit; and

C. Within 30 days from the completion of the Project, the Permit Holder shall revise the FDP to show the exact "as-built" coordinates for all Components, including any modifications, and any necessary updates to the Decommissioning Plan. Failure to timely provide such coordinates shall be a material violation of this Ordinance.

## Section V – Avoidance and Mitigation to Public Infrastructure

### 5. GPS Tracking

A. To aid in adjudication of future damage claims, all equipment operating off road and which weighs in excess of 80,000 gross weight shall be equipped with GPS tracking equipment which records the geographical movement of the equipment while moving.

B. The Permit holder shall retain all such tracking data and provide copies of such data to the Board of Supervisors on request during the construction phase of the project.

C. At conclusion of the construction phase a copy of all such GPS tracking data shall be provided to the Board of Supervisors to be included in county records.

### 1. Roads

A. Road Identification. Applicants shall identify all roads to be used for the purpose of transporting C-WECS, substation parts, cement, 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.

B. Haul Roads. All construction and maintenance equipment and materials shall be delivered to sites on haul roads designated by the County Engineer. Haul roads are to be upgraded as necessary to handle construction traffic and future maintenance by Applicant. Haul roads are to be maintained to county standards, including blading, application of granular surfacing, and repair of other surfaces damage by Applicant.

C. Dust Control. On granular surfaced haul roads the applicant shall be responsible for applying dust control in front of residents and businesses and ensure that the treated areas are effective and remain effective for the duration of use during the construction phase of the project. If numerous dust control applications are required, it shall be the responsibility of Applicant to provide the dust control re-application in a timely manner or upon direction of the county engineer.

### 2. Drainage Systems

A. Public Drainage Systems. The Permit Holder shall be responsible for immediate repair of damage to public drainage systems stemming from construction, operation or maintenance of the C-WECS. Such damage to be repaired as soon as feasible and on a schedule agreeable to the County Engineer.

B. Private Drainage Systems. The Permit Holder shall be responsible for immediate repair of damage to private drainage systems stemming from construction, operation or maintenance of the C-WECS. Such damage to be repaired as soon as feasible and on a schedule agreeable to the affected landowner.

### 3. Post Completion Survey

Permit Holder and the Worth County Engineer will meet upon completion of the project and agree as to the necessary action needed to return roads to the existing road and drainage conditions as identified in Section V.1 and V.2. Expenses related to such work to be borne by the Permit Holder, either directly or through reimbursement to the County as directed by the County engineer.



#### 4. Damage

A. Damage reporting. Any damage to public or private infrastructure, including but not limited to such things as roads, driveways, utility items, drainage tile, structures, bodies of water, ect... shall be immediately reported in writing to the owner of the damaged item and the Worth County Engineer. Failure to report such damage shall constitute a breach of ordinance and all work shall be required to halt until an investigation into the damage is completed and approval to proceed is granted by the Board of Supervisors.

B. Repair Plans. For any damage involving county or state assets, The Permit Holder shall present a repair plan that is agreed upon by county officials before repairs begin. Worth County Engineers and authorized county officials reserve the right to have authorized agents with the county's authority present at the time of repair, at the expense of the Permit Holder, for the purpose of observation and inspection.

C. Financial Security. The Permit Holder shall be responsible for restoring or paying damages as agreed to by the applicable road authority (ies) sufficient to restore the road(s) and bridges to preconstruction conditions. Financial security in a manner approved by Worth County shall be submitted covering 130% of the estimated costs of all required improvements and repairs. This requirement may be waived by the Board of Supervisors by recommendation from the Worth County Engineer.

## Section VI – Operational Maintenance and Issue Resolution

### 1. Operational Maintenance

A. Each C-WECS and MET tower location must be kept and maintained in good repair and condition in accordance with Manufacture guidance at all times. If a C-WECS is not maintained in operational and reasonable condition or poses a potential safety hazard, the Permit Holder shall take expeditious action to correct the situation, including C-WECS removal. The Permit Holder shall keep a maintenance log on each C-WECS and must provide the complete log to the county within thirty (30) days of request.

B. The Permit Holder shall ensure that repair, replacement, and removal of malfunctioning, defective, worn, or non-compliant C-WECS or Component is accomplished in a timely manner consistent public safety and industry standards.

C. The Permit Holder shall ensure that any damaged C-WECs is secured to prevent potential subsequent damage to property or potential threats to safety as soon as feasible, but not later than 30 days after the damage is noted by or reported to the Operator, unless such period is extended in writing by the Board of Supervisors. Such extension shall specify new time requirements and detail a plan for resolution to the hazards presented by the damage. Repair of the damaged C-WECS shall be accomplished in accordance with a schedule developed by the Operator and approved by the Board of Supervisors.

D. If damage to the Turbine include a leak of loss of fluids, the Operator shall ensure that reporting and mitigation activities are initiated per guidance issued by the Iowa Department of Natural Resources.

E. To aid in adjudication of future damage claims, all equipment in support of Permit Holder operating on and off road and which weighs in excess of 80,000 gross weight shall be equipped with GPS tracking equipment which records the geographical movement of the equipment while moving.

1) Permit Holder shall retain all records of GPS tracks and provide a copy of the records to the Board of Supervisors beginning on the first January after the first Turbine of operational, and continuing to be submitted on an annual basis thereafter.

### 2. Issue Resolution

Complaints of noncompliance with the requirements of this ordinance shall be resolved in the following manner.

#### A. Complaint Submission.

1) Complaints shall be submitted to the Worth County Board of Supervisors in writing from the affected property owner, or written designee, including name, address, contact information, and specific complaint. The written complaint shall include the specific section of the ordinance which is believed to be violated. The Supervisor shall cause the complaint to be added to the agenda of the next Worth County Board of Supervisors' meeting in accordance with the procedure for setting the agenda.

2) Upon review, if the Board of Supervisors, by an affirmative vote of the majority of the members present, deems a complaint sufficient to warrant an investigation, the Worth



County Board of Supervisors shall notify the Permit Holder of the C-WECS that an investigation has been requested by the Worth County Board of Supervisors.

3) The Supervisors shall submit to the Permit Holder of record notice of investigation within five (5) days of their decision.

4) Upon receipt of Notice from the Board of Supervisors the Permit Holder shall operate the Turbine(s) subject to any noise complaints in a noise reduction mode so as to ensure the Turbine meets requirements specified in Section I.3.K until such noise complaint is investigated/reviewed by the Worth County Board of Supervisors and a decision is made.

#### B. Noise Complaint Resolution.

1) The date of any Worth County Board of Supervisors' meeting where complaints may be considered shall be communicated to the Permit Holder at least 10 days prior. The notice shall state that the Worth County Board of Supervisors may determine that the C-WECS is in violation of its permit and is therefore a nuisance and may be ordered out of service until the Permit Holder can demonstrate compliance with the requirements of this ordinance.

2) If a complaint is submitted, the Permit Holder must cooperate by providing all SCADA data for the 24-hour period surrounding the complaints time and date. The Permit Holder must also agree, as part of the permit, that they will cooperate with the acoustician conducting the test, including operating the wind Turbines in the mode(s) the acoustician wishes to test, including on/off tests that may also require testing of wind Turbines not near the complainant's property, as well as SCADA data for Turbines identified by the testing agent during the testing periods.

3) Any sound tests will be conducted by a qualified acoustician selected by and approved (in public meeting) by the County Supervisors. Such decision will provide public access to the acoustician's prior training and experience and review of their competence (if requested) through independent review. The acoustician shall be without any economic nor "collaborative" relationship with any utility/energy company, utility/energy affiliates, utility/energy subsidiaries, utility/energy lobby groups, utility/energy associations/guilds, or the Permit Holder. The Permit Holder has no control over the selection of the acoustical consultant.

4) The Acoustician and Permit Holder shall use the validation/complaint measurement procedure: ANSI S12.9 Part 3 (R2013) "Short Term Measurements with an Observer Present. The S12.9 Part 3 "On/Off" test protocol must be followed. Testing shall be conducted three different days with varying wind direction and ground wind speeds as determined by the Acoustician. Testing shall be performed at the Human Occupiable Buildings of the complaint, or the property lines of the Building Site of the complainant, as applicable.

5) In the event the noise levels resulting from the C-WECS exceed the criteria listed in Section I.3.K, a noise Waiver to said levels may be granted by the Board of Adjustment through the Variance Procedure defined in the Zoning Ordinance provided that the following has been accomplished:

a) 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

b) a permanent noise impact easement shall be recorded in the Office of the County Recorder which describes the burdened properties and which advises all subsequent potential owners of the burdened property that noise levels in excess of those permitted by this Ordinance may exist on or at the burdened property.

C. If C-WECS is found in violation of this ordinance, the Permit Holder shall take immediate action to bring the C-WECS into compliance. If the Permit Holder fails to bring the operation into compliance within thirty (30) days, unless extended by the County Supervisors, the county may seek any relief at law or equity to abate the non-compliance and may also issue a municipal civil infraction citation. Each violation shall result in a \$750.00 fine per Turbine subject to the complaint. Each day of non-compliance shall be a separate offense.

D. Any C-WECS found by the Worth County Board of Supervisors to be in violation of this ordinance set forth herein shall be considered a nuisance and the C-WECS operations shall cease until such time as the C-WECS Permit Holder can demonstrate compliance with the requirements of this ordinance and Discontinued/Decommissioning Section.

### 3. Operational Upgrades to Installed C-WECS

A. C-WECS existing in the county as of the date of this ordinance that do not meet the terms of this ordinance are considered as nonconforming and their use and operation may continue in a nonconforming manner as long as it shall meet the terms of this Subsection 3, and Sections VI, VII, IX, and X.

B. Any upgrades to installed nonconforming C-WECS that require more than a software upgrade shall be considered a new project and be subject to a new C-WECS Permit and shall follow all aspects of this ordinance.

C. Exempt from the preceding subsection 3.B are upgrades to components of substations or Turbines which may occur as a matter of routine operation, maintenance or repair and which does not materially change the structural aspects or size of the Turbine more than 10 percent, provided a third-party engineer selected by the County, at Permit Holder expense, certifies that the existing base and infrastructure can safely accommodate such upgrade. No such nonconforming substations or Turbines shall be allowed to be structurally changed or altered in size or dimension beyond the aforementioned 10 percent of original size. Such changes constitute a new installation and shall be required to follow the permitting guidance and abide by the entirety of terms in this ordinance in effect at the time. Changes to substations shall follow guidance contained in existing Zoning Ordinances in effect at the time.



## Section VII – Discontinuance/Decommissioning

### 1. Discontinuance

A. A Component of a Commercial WECS shall be considered a “discontinued use” (i) after one continuous year of being non-operational (unless a plan is approved by the County outlining the steps and schedule for returning the Component to service); or (ii) upon revocation of the WECS Permit. Once declared to be a discontinued use, the Components shall be subject to removal pursuant to this Section VII.

B. Each Project shall have Decommissioning Plan developed by the Applicant and approved by the Board of Supervisors. Such Plan shall contain;

1) A description of the Project Components, and a sequence and description of the activities required to remove same in compliance with this Section, and restoration of the land to conditions in place prior to original construction, to be completed 180 days after decommissioning.

2) A report prepared by a qualified third-party (to be approved by the Board in advance) setting forth the procedures and estimated net cost associated with the removal of the Components (other than Feeder Lines) to a depth of 72 inches and the accompanying restoration of the surface.

3) Cash, an irrevocable letter of credit, or a performance bond running in favor of the County in an amount no less than the total estimated net removal/restoration costs as determined by said report. Said security must be in place at the time the Project is completed and must remain in effect until decommissioning is completed. No such security shall be cancelable without notice to the Zoning Administrator and approval by the Board of Supervisors. Each year, the Permit Holder shall provide proof that such security is in effect at the same time as the annual report to the assessor is made for purposes of the real estate tax assessment.

4) The report prepared under B. above shall be updated and provided to the County (i) at least every five (5) years, and (ii) upon any proposed transfer of the WECS Permit. Should any update indicate a change in the decommissioning costs, the security required under 3). above shall be adjusted accordingly.

5) No transfer/assignment of the C-WECS Permit shall be effective without a corresponding transfer/assignment of the obligations and financial security required under the Decommissioning Plan, as approved by the Board of Supervisors.

C. Upon completion of decommissioning activities, the County Engineer and Permit Holder will verify that all planned activities have been completed per the decommissioning plan, or notes made with regard to items not completed. Records of completed activities will be retained in the County Engineer office for 5 years. Items left in place contrary to the decommissioning plan will be recorded in the form of easements with the County Recorder’s office. Any concrete Turbine bases of a size greater than 2 cubic feet left in the soil, regardless of depth shall be recorded in the abstract for the land to ensure that future property owners or perspective buyers are aware of its presence.

## Section VIII – Ancillary Agreements/Procedures

In addition to the Review and Approval Process, issuance of a C-WECS Permit is strictly conditioned on the Applicant executing the following agreements. The Zoning Administrator shall verify that all such agreements/Plans have been signed/approved by both parties and that such agreements/Plans are on file with the county Recorder prior to transmission of approved Permits to the Applicant.

A. Worth County Road Use and Repair Agreement signed by the Applicant and the Worth County Board of Supervisors.

B. Worth County Public Drainage System Protection Agreement signed by the Applicant and the Worth County Board of Supervisors.

C. Abandonment/Decommissioning Plan signed by the Applicant and approved by the Worth County Board of Supervisors.

D. An Emergency Response Plan provided by Applicant and approved by the Board of Supervisors. Said Plan shall contain response procedures to be followed in the event of a fire, liquid leakage, blade fracture, collapse, personal injury, or other emergency at a Project. The Plan shall contain 24 hour emergency contact information for the Project. Permit Holder is required to ensure that the Zoning Administrator is provided any updates that may be issued from time to time.

E. Notices and manuals specified and provided pursuant to Section III.4.V shall be retained by the Zoning Administrator for awareness and use of county agencies and local emergency responders.

F. Permit Holder shall ensure that the Zoning Administrator is provided a copy of updates to the items provided pursuant to Section III.4V that may be issued from time to time by the manufacturers.



## Section IX – Transferability of C-WECS Permit

A. Only the holder of the C-WECS Permit (the “**Permit Holder**”) shall own the Project, and such holder shall be the entity responsible for compliance with all requirements of this Ordinance. The Permit Holder shall be responsible to maintain all Components of the Commercial WECS in good repair, and in compliance with this Ordinance and the Ancillary Agreements listed in Section VIII.

B. No C-WECS Permit shall be transferred or assigned, voluntarily or involuntarily, without the written approval of the Worth County Board of Supervisors, which consent may be withheld unless and until the Board is satisfied that a proposed transferee has the financial and operational responsibility to assume all obligations required of the Permit Holder under this Ordinance and the Ancillary Agreements listed in Section VIII. Requests for approval of a C-WECS Permit transfer shall be directed to the Zoning Administrator.

C. Recipient of any such Permit transfer must affirm their responsibilities as Permit Holder in a signed letter to the Board of Supervisors and sign new Agreements specified in Section VIII that are materially the same or provide a notarized letter stipulating their acknowledgement of their acceptance of responsibilities in the original Agreements, which shall be specifically referenced, as a component of transfer.

## Section X – Miscellaneous

### 1. Condemnation Waiver

Issuance of a C-WECS Permit shall be conditioned on the Permit Holder’s enforceable promise, supported by consideration of the issuance of the C-WECS Permit, that the Permit Holder shall never use, or seek to use, eminent domain to acquire and real property interests to construct or operation the Project.

### 2. County Recovery of Legal Fees

In any action brought by the County against the Permit Holder of a C-WECS Permit to enforce the provisions of this Ordinance, the County shall be entitled to recover its reasonable attorney fees and court costs as may be awarded by the decision-making tribunal.

### 3. Severability Clause

If any of the provisions of this Ordinance are for any reason illegal or void, then the lawful provisions of this Ordinance, which are separable from said unlawful provisions shall be and remain in full force and effect, the same as if the Ordinance contained no illegal or void provisions.

### 4. Repealer

This ordinance takes precedence over and precludes the Conditional Use Permitting Process specified for Commercial Wind Turbines in the County Zoning Ordinance. All ordinances or parts of ordinances in conflict with the provisions of this Ordinance are hereby repealed.

5. Date of Effect

This Ordinance shall become effective upon its passage by the Board at three meetings and published as required by Iowa Code §331.302(8).

Adopted and passed by the Worth County Board of Supervisors on this 27<sup>th</sup> day of June, 2022.

Worth County Board Of Supervisors

Mark Smely  
, Chairperson

Erin Ruby

[Signature]

ATTEST:

Jacki A. Backhaus  
, Worth County Auditor