PROPOSED FREMONT COUNTY ORDINANCE 2020 – ___

AN ORDINANCE REGULATING THE CONSTRUCTION, INSTALLATION, AND MAINTENANCE OF WIND ENERGY CONVERSION SYSTEMS AND ADDRESSING THE STANDARDS AND CONDITIONS THEREOF WITHIN FREMONT COUNTY, IOWA.

Be it enacted by the Fremont County Board of Supervisors, Fremont County, Iowa as follows:

TABLE OF CONTENTS

SECTION 1: PURPOSE

The purpose of this Ordinance is to provide for the regulation of Owners/Developers engaged in the construction, erection, placement, location, operation, and maintenance of Wind Energy Conversion Systems in Fremont County, Iowa, and to preserve and protect the public health, safety, comfort, and welfare of the residents of Fremont County, Iowa, without significantly increasing the cost or decreasing the efficiency of such Wind Energy Conversion Systems and associated structures.

SECTION 2: JURISDICTION

This Ordinance applies to all lands within the unincorporated areas of Fremont County, Iowa, but shall not apply to land within the incorporated cities of Fremont County, Iowa.

SECTION 3: DEFINITIONS

Unless the context specifically indicates otherwise, the meaning of terms used in this ordinance shall be as follows:

Applicant: the person or entity submitting the application under this Ordinance, which is normally expected to be the owner or operator of a WECS, or the owner of the WECS development.

Commercial Grade Wind Energy Conversion System (C-WECS): a Wind Energy Conversion System of equal to or greater than 100 kW in total nameplate generating capacity.

Decommission (or Decommissioning): the removal, to a depth of four (4) feet, of all wind turbines and related devices and equipment and distribution facilities comprising a Wind Energy Conversion System including, but not limited to, all rotors, nacelles and towers; all collection step-up transformers; all Wind Energy Device foundations, pads, underground electrical wires and any and all other underground wind energy structures and improvements and all access roads (unless the relevant landowner requests that such access road remain), all in accordance with Section 8 herein.

Distribution or 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.

Larger Turbine: a turbine 500 feet or greater in height from the ground at the base to the highest point reached by the tip of a blade.

Loess Hills: a fragile, rare natural land formation of wind-deposited loess soil located in the western half of Fremont County, Iowa. For the purposes of this ordinance, the boundary

of the Loess Hills setback shall be measured from Fremont County Road L44, commonly known as Bluff Road, which is located at the foot of the Loess Hills to the West.

Meteorological Tower (MET): any meteorological, measuring, or surveying equipment or devices erected on or attached to any tower, monopole, or guyed structure to verify the wind and weather resources found within a certain area.

Non-Commercial Wind Energy Conversion System (NC-WECS): a WECS which has a generating nameplate capacity of not more than 100 kW, and which is intended to primarily reduce on-site consumption of utility power.

Non-participating Landowner: any landowner not under agreement with the owner or operator of the WECS.

Non-Participating Residence: the primary human dwelling on any privately-owned parcel of land where the owner(s) of such parcel has not entered into a voluntary agreement with the Owner/Developer/Operator.

Non-Participating Property Line: the boundary line defining any parcel of land where the owner(s) of the parcel has not entered into a voluntary agreement with the Owner/Developer/Operator regarding the Project, regardless of the presence of a residence.

Owner/Developer/Operator: the individual, firm, business, or entity that intends to own and operate a Wind Energy Conversion System in accordance with this Ordinance.

Participating Landowner: a landowner under lease, easement or other property agreements with the owner or operator of the WECS.

Participating Residence: the primary human dwelling on any parcel where the owner(s) of the parcel has entered into a voluntary agreement with the Owner/Developer/Operator.

Participating Property Line: the boundary line defining any parcel of land where the owner(s) of the parcel has entered into a voluntary agreement with the Owner/Developer/Operator regarding the Project, regardless of the presence of a Participating Residence on such parcel.

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

Residence: a house, apartment, or other shelter that is the abode of a person, family, or household and is regularly occupied or occupiable.

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

Setback: the minimum required distance from a certain object, structure or point to the center point of the foundation of the Wind Turbine at the natural ground level.

Structure: anything constructed or erected on the ground or attached to the ground, including but not limited to, antenna(s), buildings, sheds, cabins, residences, signs, storage tanks, towers, Wind Turbines, and other similar objects.

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

Smaller Turbine: a turbine less than 500 feet in height from the ground at the base to the highest point reached by the tip of a blade.

Total Height: the vertical distance from ground level to the tip of the blade on a Wind Energy Device when such blade is at its highest point.

Tower: any monopole, freestanding, or guyed structure that supports a Wind Energy Device.

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 customers.

Wind Energy Conversion System (WECS): an electrical generating facility comprised of one or more Wind Energy Devices and accessory facilities including, but not limited to, power lines, transformers, substations and meteorological towers that operate by converting the kinetic energy of wind into electrical energy. The energy may be used on-site or distributed into the electrical grid.

Wind Energy Device (WED): any equipment that transforms energy from the wind into usable forms of energy not intended for residential or personal use. This equipment includes any base, blade, foundation, generator, nacelle, rotor, or tower that is integrated as part of a single device. The term wind energy device often refers to and includes wind towers, wind turbines, wind generators, windmills, or other wind energy conversion systems. This definition shall not include any buried wires or other subsurface electrical transmission equipment or ancillary above ground electrical structures such as junction boxes and step-up transformers.

Wind Energy Accessory Building or Structure: any permanent building or structure located within the same defined boundaries of a permitted Wind Energy Conversion System or on the same lot, parcel or tract of land of a single Wind Energy Device, and is clearly considered customarily and incidental and subordinate to the principal Wind Energy Device(s). Any Wind Energy Device Accessory Building or Structure may contribute to the successful operation, convenience, and necessity of the principal Wind Energy Device(s). Examples of Wind Energy Device Accessory Buildings or Structures may include, but not be limited to, electrical substations, switching stations or any other permanent structures used in a capacity similar to electrical substations and associated with

Wind Energy Conversion Systems. This definition shall not include any above ground or buried transmission lines, wires or other electrical equipment in addition to any above ground junction boxes, step-up transformers, operations and maintenance buildings or any temporary or non-permanent buildings or structures used during the construction of a Wind Energy Device or Wind Energy Conversion System. For the avoidance of doubt, junction boxes are small pieces of electrical equipment that are typically no larger than approximately 3' tall above the surface and approximately 4' in width and 3' in depth. Step-up transformers are pieces of electrical equipment approximately 6' tall above the surface and approximately 6' in width and 6' in depth and are usually located in close proximity to the base of the Wind Energy Device.

SECTION 4: WIND ENERGY CONVERSION SYSTEM PERMIT APPLICATION

The Applicant for the siting and construction of a WECS shall file an application with the Fremont County Engineer or his designee, accompanied by a fee of two hundred fifty dollars ($250.00) per Wind Energy Device that is a part of the application and payable to Fremont County, Iowa.

A. All applications for WECS must include the following information (as applicable):

1. A WECS project summary, including, to the extent possible: (a) a general description of the project, including its approximate nameplate generating capacity; the equipment manufacturer and a general description of the Wind Energy Devices (WEDs), and (b) a description of the applicant, owner and operator, including their respective business structures.

2. The names of project applicant and project owner, including contact information.

3. The general description of the location of the WECS.

4. Total height and rotor diameter of the WEDs.

5. Site layout, including the location of the WEDs and those items to which a setback applies. The site layout shall include distances and be drawn to scale, in order for the County to determine if the WEDs meet the setback requirements of this Ordinance.

6. Engineer's certification(s) of the specifications and operating parameters of the WEDs.

7. Documentation of land ownership or legal control of the property.

8. The latitude and longitude of individual WEDs.

9. Location of any conservation areas within a two (2) mile radius of the participating property, which are potentially affected by the proposed WEDs.

10. Affirmation that a sound study was completed showing expected maximum decibel levels produced by the WEDs as measured at non-participating residences should not

exceed fifty (50) decibels (dBA) during normal operating conditions.

11. Affirmation that a shadow flicker study was completed showing that no non-participating residence will experience more than 30 hours per year of shadow flicker under planned operating conditions.
12. Affirmation that the applicant has applied for necessary and appropriate Federal Communication Commission (FCC) applications and Federal Aviation Administration (FAA) no hazard determinations (including FAA determinations of no hazard, if received).

13. Affirmation that the applicant has identified significant migratory flyways and nesting areas for federally listed birds, bats, and endangered species within one (1) mile of the proposed Wind Turbine.

B. The WECS application shall contain the above information and be submitted to the Fremont County Engineer or his designee. Upon determination by the Fremont County Engineer that the requirements of this Ordinance have been satisfied, the completed WECS Application and any/all necessary supporting documentation shall be presented to the Fremont County Board of Supervisors for approval. The Fremont County Board of Supervisors, upon approval of an application, shall authorize the Zoning Administrator to provide any necessary building permits for each Wind Turbine. If there are any material changes to the information provided as part of the application in Section 3 that occur from the time of the application until the construction of the WECS, the applicant shall submit a new application (along with an application fee per Wind Turbine with changed information) together with the updated information for each Wind Turbine (with changes to the information required to be provided in Section 3) and any such change shall be in compliance with this Ordinance. The Fremont County Zoning Administrator shall present the amended and completed WECS Application and any/all necessary supporting documentation to the Fremont County Board of Supervisors using the process described above. Upon the issuance of any necessary FAA and FCC permits identified in this section, the applicant shall provide the Fremont County Zoning Administrator with documentation that the applications were approved.

SECTION 5: GENERAL REQUIREMENTS FOR COMMERCIAL GRADE WIND ENERGY CONVERSION SYSTEMS AND METEOROLOGICAL TOWERS

The Owner/Developer/Operator will design, construct, and operate any Commercial Wind Energy Conversion System (C-WECS) or Meteorological Tower (MET) in compliance with following requirements:

A. Color and finish: WEDs and METs shall be painted a non-reflective color. Blades may be black in order to facilitate de-icing. Finishes shall be matte or non-reflective.

B. Tower Configuration: All WEDs, which are part of a C-WECS, shall be installed with a tubular, monopole type tower. METs may be guyed.

C. Minimum Ground Clearance: The blade tip of any WED shall, at its lowest point, have ground clearance of no less than thirty-five (35) feet.

D. Maximum Height: WEDs and METs shall not exceed six hundred fifty (650) feet in total height.

E. Number of WEDs: No more than one hundred fifty (150) Wind Energy Devices shall be allowed in Fremont County, Iowa.

F. Safety: All ground mounted electrical and control equipment shall be labeled and secured to prevent unauthorized access. WEDs and METs shall not be climbable on their exterior up to fifteen (15) feet above ground level, except for stairs used to reach the access door used for entry into the WEDs. All access doors to WEDs and meteorological towers and electrical equipment shall be locked when not being serviced. Appropriate visible warning signage shall be placed on WEDs, electrical equipment, and substation entrances. For all guyed meteorological towers, visible and reflective objects, such as plastic sleeves, balls, 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.

G. Lighting: WEDs shall not be artificially lighted from the ground upward, except to the extent required by the FAA or other applicable authority or for nighttime repairs/maintenance. All temporary or permanent METs (regardless of their height) shall display a flashing red light at the top of the tower. Lighting, including lighting intensity and frequency of strobe, shall adhere to, but not exceed, requirements established by FAA regulations.

H. Shadow Flicker: The Owner/Developer/Operator shall use shadow flicker computer modeling to estimate the amount of shadow flicker anticipated to be caused by the WECS so that computer modeling indicates that no non-participating residence will experience more than 30 hours per year of shadow flicker under planned operating conditions. If any owner of a nonparticipating residence experiences more than 30 hours of shadow flicker per year under WECS normal operating conditions, then the Owner/Developer/Operator shall be obligated to mitigate such shadow flicker to comply with the terms of this Ordinance.

I. Sound: Sound produced by any WED under normal operating conditions as measured at the exterior wall of a residence shall not exceed 50 dBA. Sound levels, however, may be exceeded during short term events out of the Owner/Developer/Operator's control, such as utility outages and/or severe wind or weather conditions.

J. Signage: Upon completion of the WEDs, the C-WECs owner's name and/or logo and the phone number to contact in case of emergency shall be placed upon the base of each of the WECS Towers and the entrance to any enclosure fence. WEDs shall not be used for displaying any advertising except for reasonable identification of the manufacturer, owner, or operator of the WECS.

K. Electrical Lines: All communications, transmission, and distribution or feeder lines, equal to or less than 34.5 kV, installed as part of a WECS shall be buried not less than forty-eight (48) inches deep. If the Owner/Developer/Operator can demonstrate the need for an overhead line and the acceptance of landowners for this line, such option may be approved conditionally by the Fremont County Board of Supervisors.

L. Waste Disposal: Solid and hazardous wastes, including but not limited to crates, packaging materials, damaged or worn parts, as well as used oils and lubricants, shall be removed from the site in a time period as established by local, state and federal regulations.

M. Interference: The C-WECs shall not interfere with licensed microwave communication paths or those microwave paths planned to be used by Fremont County at the time of the application. The C-WECs owner shall minimize and mitigate any interference with electromagnetic communications, such as radio, telephone or television signals caused by any WEDs. If, after construction of the C-WECS, the owner or operator receives a written complaint related to the above-mentioned interference, the owner or operator shall take reasonable steps to respond to the complaint.

N. Insurance: The owner or operator of any C-WECS subject to this Ordinance shall maintain a current general liability policy covering bodily injury and property damage with limits of at least three million dollars ($3,000,000) per occurrence and six million dollars ($6,000,000) in the aggregate. Such insurance requirements may be met through a combination of primary and excess insurance policies.

O. Federal Aviation Administration: All WEDs shall comply with FAA standards and regulations.

P. Electrical Codes and Standards: All WECS and comprising WEDs shall comply with all applicable State of Iowa construction and electrical codes, the National Electrical Code, and any and all other applicable standards.

Q. Utility Notification and Interconnection: WECS that connect to an electric utility shall comply with all local, State of Iowa, and federal regulations regarding the connection of energy generation facilities.

R. Setbacks: The following setbacks and separation requirements shall apply to all WEDs and METs, as measured in feet from the nearest point, unless otherwise specified, of the object, landmark, or structure to the center point of the foundation of the WED or Tower at the natural ground level as of the date the corresponding WECS Permit Application is filed:

Object, Landmark, or Structure	**Setback for Smaller WEDs**	**Setback for Larger WEDs**
Participating Residence	1,250 feet	1,350 feet

Non-Participating Residence	1,500 feet	1,600 feet
Shared Property Line of Participating Owners	Blade Length	Blade Length
Non-Participating Property Line	1.1 x Total Height	1.1 x Total Height
Public Roads/Right of Way	1.1 x Total Height	1.1 x Total Height
Incorporate Cities/Municipalities	5,280 feet	5,280 feet
Non-Road Public Right of Way	1.1 x Total Height	1.1 x Total Height
Overhead Utility Lines	1.1 x Total Height	1.1 x Total Height
Oil and Natural Gas Pipelines	1.1 x Total Height	1.1 x Total Height
Railroads/Railroad Right of Way	1.1 x Total Height	1.1 x Total Height
Cemeteries	1,500 feet	1,500 feet
Livestock Confinement Facilities	1,500 feet	1,500 feet
Publicly Owned Parks and Lakes	1,500 feet	1,500 feet
The Missouri River	15,840 feet	15,840 feet
Loess Hills, measured from County Road L44	15,840 feet	15,840 feet

S. Wind Energy Accessory Buildings or Structures: Above ground Wind Energy Accessory Buildings or Structures shall be set back a distance of no less than 1,500 feet from any residential dwelling. The measurement between the Wind Energy Accessory Building or Structure is to be taken from the nearest point of the residential dwelling to the visually apparent perimeter of the above ground Wind Energy Accessory Building or Structure, or the boundary of an area containing such above ground Wind Energy Accessory Building or Structure (as may be evidenced by a fence, edge of parking lot, or other visible surface or above ground element of the building or structure; provided, however, that a sign or natural vegetation shall not be considered a perimeter or boundary). Such setback distance of 1,500 feet shall be enforced unless the property owner of such residential dwelling provides written consent or approval to the location of such Wind Energy Accessory Building or Structure. Above ground Wind Energy Accessory Buildings or Structures shall be setback a distance of no less than 150 feet from any road right of way, public right of way, railroad right of way or public utility facility, unless the owner of such facilities or such right of way or the applicable public utility facility owner provides written consent or approval to the location of such above ground Wind Energy Accessory Building or Structure.

T. Setback Waiver: The foregoing setbacks may be waived by nonparticipating or participating landowner and/or residences and by owners of participating shared property line or non-participating property line owners.

SECTION 6: GENERAL REQUIREMENTS FOR NON-COMMERCIAL WIND ENERGY CONVERSION SYSTEMS (NC-WECS).

Non-Commercial Grade Wind Energy Conversion Systems are subject to the following standards:

A. In addition to satisfactorily addressing all other applicable requirements of this Ordinance,

the applicant must provide documentation that the following requirements have also been met.

1. Tower Height: NC-WECS Wind Turbines shall not exceed one hundred (100) feet in total height. NC-WECS shall be subject to all height limitations as necessary to comply with other sections of this Ordinance and those imposed by FAA regulations.

2. Setback: No part of the NC-WECS structure, including guy wire anchors, may extend closer than fifty (50) feet to the property boundaries of the installation site. The distance of the base of the tower from any property line shall be a minimum of one hundred twenty-five (125) percent of the total height of the tower. An affected property owner may petition the Fremont County Board of Supervisors for a written waiver of this setback requirement.

3. Noise: NC-WECS shall not exceed fifty (50) dBA, as measured at the closest neighboring inhabited residence that exists as of the time of the application. The level, however, may be exceeded during short-term events such as utility outages and/or severe windstorms.

4. Engineer Certification: Applications for NC-WECS shall be accompanied by standard drawings of the wind turbine structure, including the tower, base, and footings. An engineering analysis of the tower showing compliance with the applicable regulations and certified by an Iowa licensed professional engineer shall also be submitted. This analysis is frequently supplied by the manufacturer.

5. Compliance with Federal Regulations: NC-WECS must comply with applicable Federal Communication Commission (FCC) applications and Federal Aviation Administration (FAA) applications, including but not limited to, necessary approvals for installations near airports.

6. Compliance with Electric Code: Applications for NC-WECS shall be accompanied by a line drawing of the electrical components in sufficient detail to allow for a determination that the manner of installation conforms to the State of Iowa code and National Electric Code. This information is frequently supplied by the manufacturer.

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

8. Insurance: The applicant seeking a permit to erect a NC-WECS shall provide evidence, in the form of a certificate of insurance satisfactory to Fremont County, showing general liability coverage for the installation and operation of the NC-WECS system under a standard homeowner's or standard business owner's insurance policy, separate and distinct from any insurance requirements of a public utility.

SECTION 7: ROADS, DRAINAGE SYSTEMS, AND INFRASTRUCTURE

Costs of repair from damage or maintenance of County roads, rights of way, drainage systems, or any other County infrastructure resulting from the construction, operation, repair, or removal of a WECS, WED, or MET shall be the responsibility of the Owner/Developer/Operator. A separate agreement which clearly lays out the rights and obligations of the County and the Owner/Developer/Operator with respect to the construction, maintenance, and use of County roads in connection with the development of a WECS will be required prior to the start of construction by the Owner/Developer/Operator of any WEDs and related devices and equipment and distribution and collection facilities comprising a WECS or the installation of a MET.

SECTION 8: DECOMMISSIONING

Prior to the Owner/Developer/Operator commencing the construction and/or installation of a Wind Energy Conversation System or a Meteorological Tower, the Owner/Developer/Operator shall enter into a decommissioning agreement for the WECS with Fremont County outlining the anticipated means and cost of removing each WED and/or MET, and all associated structure and infrastructure, net of salvage value, at the end of its serviceable life or upon becoming a discontinued use. The Owner/Developer/Operator will obtain a cost estimate to be made by a professional engineer licensed in the State of Iowa. The decommissioning agreement shall also outline proposed financing methods adequate for the decommissioning of the WECS. A WED shall be considered discontinued or abandoned after one year without energy production unless a timely plan is developed and submitted within such one-year period to the County outlining the steps and schedule for returning the WED to active service. All WEDs, METs, and accessory facilities shall be removed to a depth of four (4) feet below grade within one hundred eighty (180) days of becoming a discontinued use.

SECTION 9: CHANGE OF OWNERSHIP

The Owner/Developer/Operator shall submit notification to the County upon change of ownership of all or part of any WECS. The ownership of the WECS shall not be assigned without the written consent of the Fremont County Board of Supervisors and such consent shall not be unreasonably withheld.

No consent shall be required if the change of ownership or assignment is to an electric utility regulated by the Iowa Utilities Board, or to a rural electric cooperative or municipal utility serving any part of Fremont County. In this event, the Owner/Developer/Operator shall provide ten (10) days advance written notice of any such change of ownership to the Fremont County Board of Supervisors.

SECTION 10: INTERPRETATION AND REGULATIONS

In their interpretation and application, the provisions of this Ordinance shall be held to be minimum requirements. Where this Ordinance imposes a greater restriction than is imposed or required by other provisions of law, other rules, regulations or ordinances, the provisions of this Ordinance shall govern. This Ordinance is not intended to abrogate or annul any easement, covenant or other private agreement provided that where any provision of this Ordinance is more restrictive or

imposes a higher standard requirement than such easement, covenant or other private agreement, the provisions of this Ordinance shall govern.

SECTION 11: PENALTY

It shall be unlawful for any person, firm, or corporation to construct, install, or operate any Wind Energy Conversion System or Meteorological Tower that is not in compliance with this Ordinance. This Ordinance, however, shall not apply to, or regulate, any and all Wind Energy Devices or Meteorological Towers installed prior to the adoption of this Ordinance.

Any person who fails to comply with any provision of this Ordinance shall be deemed subject to a county infraction and punishable by a civil penalty of not less than $200.00 but not to exceed $750.00 plus court costs for the first offense and not less than $400.00 but not to exceed $1,000.00 plus court costs for each subsequent offense.

Fremont County, Iowa may seek all relief prescribed by State law for county infractions. The Fremont County Auditor and the Fremont County Attorney and his or her assistants are the officers designated and authorized to enforce this ordinance by issuance of civil citations for county infractions. Each Wind Energy Device determined to be in violation shall constitute a separate infraction. Each day that a violation occurs or continues to exist shall constitute a separate offense.

SECTION 12: NONCONFORMING USES

A Wind Energy Conversion System, Wind Energy Device, or Meteorological Tower which constructed and lawful before the passage of this Ordinance, but which is not in conformity with the provisions of this Ordinance, may be continued subject to the following conditions:

A. If such use is discontinued for six (6) consecutive months, any future use shall conform to this Ordinance.

B. If any nonconforming use or structure is damaged or destroyed by any means, it shall not be reconstructed if the cost is more than fifty (50) percent of the market value of the structure before the damage occurred, unless it is reconstructed in conformity with the provisions of this Ordinance.

SECTION 13: REPEALER AND SEVERABILITY

All ordinances or parts of ordinances in conflict herewith are hereby repealed. The invalidity of any section, clause, sentence, or provision of this ordinance shall not affect the validity of any other part of this ordinance which can be given effect without such invalid part or parts.

SECTION 14: ORDINANCE IN FORCE

This Ordinance shall be in full force and effect from and after the date of its passage, approval, and publication as provided by law.

ADOPTED AND ENACTED by the Fremont County Board of Supervisors on June 24, 2020.