

ARTICLE VIII

WIND ENERGY CONVERSION SYSTEMS

PART 1. PURPOSE AND GENERAL PROVISIONS

8-100. **Statement of Purpose.**

- (A) It is the purpose of this Article to provide a regulatory scheme for the construction and operation of all Wind Energy Conversion Systems (WECS) in Barton County and create a process to permit the development of a WECS project subject to reasonable restrictions, which will preserve the public health and safety as well as property values of Non-Participating Landowners.
- (B) Section 8-200 applies to a Small Scale Single Use WECS only, as defined in the definitions Section 8-103. Large Scale Non-Commercial WECS as defined in Section 8-103 is regulated under Section 8-300 of this Article and shall be subject to the Conditional Land Use Permit (CLUP) process. Commercial Scale WECS as defined in Section 8-103 is regulated under Section 8-400 of this Article and shall be subject to the CLUP process.
- (C) It is the intent of these regulations to address major issues associated with the WECS project. Issues that are not listed and that are deemed significant during the course of review will be addressed with the review and conditions of each individual CLUP.

8-102. **Findings.**

- (A) Barton County notes that the science of determining the impact of WECS on migratory birds is in a developmental stage. Consequently, the county reserves the right to reconsider the boundaries of the no build zone and the conditionally permitted zone in the future and will formally conduct such review by the Barton County Planning Commission as deemed necessary.

8-103. **Definitions.**

- (A) The following definitions shall be used in the interpretation of this article.

CONDITIONALLY PERMITTED ZONE: Specific area surrounding the Cheyenne Bottoms Basin that has special permitting requirements. All applications for WECS must follow the Conditional Use Permit process as set forth in the Barton County Zoning Regulations. Barton County will provide a copy of all applications in this zone to the Kansas Department of Wildlife & Parks and The Nature Conservancy and request their comments with the final decision being made by Barton County.

FALL ZONE: The area is defined as the furthest distance from the tower base, in which a tower will collapse in the event of a structural failure. This area is no less than the total height of the structure.

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 electric power grid, in the case of interconnection with the high voltage transmission systems the point of interconnection shall be the substation serving the WECS.

FINANCIAL ASSURANCE: Shall mean reasonable assurance from a credit-worthy party; examples of which include a surety bond, trust instrument, cash escrow, or irrevocable letter of credit.

METEOROLOGICAL TOWER (MET TOWER OR MET MAST): A measurement tower or measurement mast, also known as a meteorological tower or meteorological mast (Met Tower or Met Mast), is a free standing tower or a removed mast, which carries measuring instruments with meteorological instruments, such as thermometers and instruments to measure wind speed. Met towers do not include towers and equipment used by airports, the Kansas Department of Transportation, or other similar applications to monitor weather conditions.

NO BUILD ZONE: WECS are not permitted.

NON-PARTICIPATING LANDOWNER: A landowner that owns property that is not participating in the WECS project.

NON-PARTICIPATING PROPERTY: Any property within the WECS project other than participating property.

OWNER / OPERATOR: The party or entity responsible for the construction, operation, maintenance, and decommissioning of the WECS.

PARTICIPATING LANDOWNER: A landowner whose property (or portion thereof) is currently leased or proposed to be leased for the production, siting, or development of an WECS and all landowners who have waived their rights to the setbacks provided in Section 8-304 (10) (a) to (f) and Section 8-404 (10) (a) to (f).

PARTICIPATING PROPERTY: A property where a WECS is located or proposed to be located pursuant to an agreement with the owner/operator.

PROFESSIONAL ENGINEER: Shall mean an independent professional engineer licensed in the State of Kansas in their field of expertise.

Wind Energy Conversion Systems

PROJECT AREA: The total impacted area of land in acres used for converting wind into electricity, including the necessary equipment for generating electricity; Shall include the WECS, support structures (which may include buildings), electrical substations and accessory or appurtenant structures and equipment, wildlife corridors, and other components of the WECS.

PROJECT EXTENT: The entire area including property and setback lines, lease lines, streets, roads, easements, landscaping, wildlife corridors, right-of-way corridors, and utility easements; includes the project area.

PROPERTY LINE: The boundary line of the area over which the entity applying for a WECS permit has legal control for the purposes of installation of a WECS. This control may be attained through fee title ownership, easement, or other appropriate contractual relationship between the project developer and landowner.

PROPERTY VALUE AGREEMENT (PVA): The value of a property that is fixed by agreement between the parties involved. With regards to a proposed WECS project, this agreement will be between the owner / operator of the proposed WECS project and all Non-Participating Landowners within a two-mile radius of the project footprint. This does not include Fair Market Value, which is the price that a seller is willing to accept, and a buyer is willing to pay on the open market.

ROTOR DIAMETER: The diameter of the circle described by the moving rotor blades.

ROTOR SWEPT AREA: The area of the circle delineated by the wind generator's rotating blades.

STRUCTURE: Something that is constructed.

TOTAL HEIGHT: The highest point, above ground level, reached by a rotor tip or any other part of the WECS.

TOWER: Towers include vertical structures that support the electrical generator, rotor blades, nacelle, or meteorological equipment.

TOWER HEIGHT: The total height of the WECS exclusive of the rotor blades.

VERTICAL-AXIS WIND TURBINE (VAWT) WECS: A vertical-axis wind turbine where the main rotor shaft is set transverse to the wind while the main components are located at the base of the turbine. This arrangement allows the generator and gearbox to be located close to the ground, facilitating service

and repair. VAWT's do not need to be pointed into the wind, which removes the need for wind-sensing and orientation mechanisms. There are several types of VAWT's including but not limited to; Savonius, Darrieus, Helical, H Rotor, and Revolving Wing.

WAIVER: The waiver document shall be notarized, recorded, run with the parcel(s) of record, and terminate at the termination of the WECS project as part of the decommissioning plan. For purposes of a Municipal Waiver a signed and recorded resolution will suffice to meet the waiver requirements.

WILDLIFE: Living things and especially mammals, birds, fish, vertebrates, reptiles, and amphibians that are neither human nor domesticated.

WILDLIFE CORRIDOR: A vegetated route or other connection which allows the movement of wildlife between areas of habitat. A wildlife corridor may be a naturally occurring area such as a stream corridor or constructed break in a contiguously fenced area other than roads. A wildlife corridor allows animals to travel through an area that may be fragmented with wind energy conversion systems or other features, rather than using the nearby roadways.

WIND ENERGY CONVERSION SYSTEM (WECS): An electrical generating facility comprised of all necessary devices that together convert wind energy into electricity, including the WECS foundation, WECS tower, nacelle, rotor blades, generator, electrical components, transformer, and electrical cabling from the WECS towers to the substation. Most WECS are Horizontal Axis Wind Turbines, however these regulations also apply to Vertical-Axis Wind Turbines (VAWT).

- (a) COMMERCIAL SCALE WECS: A WECS greater than 150 kW in total name plate generating capacity or is greater than 120 feet in total height, or where more than one wind turbine is proposed. The system is connected to transmission, collector, feeder lines, and/or battery storage, and is intended for use in a larger electrical network exclusive of individual use. Lattice type towers and guyed towers/poles are not permitted on Commercial Scale WECS in Barton County.
- (b) LARGE SCALE NON-COMMERCIAL WECS: A WECS 150 kW or less in total name plate generating capacity and is 120 feet in total height or less, or where more than one wind turbine is proposed. Large Scale Non-Commercial WECS is typically created for business use, although it can be created by a group of people that join together to cooperatively create and use wind energy. Electricity created is for consumption of members in the group or business and not for transfer or sale to a third party. Lattice type

Wind Energy Conversion Systems

towers and guyed towers / poles are permitted on Large Scale Non-Commercial WECS in Barton County.

- (c) SMALL SCALE SINGLE USE WECS: Shall be defined as a WECS that is dedicated to a single and particular use. A WECS of 150kW or less in total name plate generating capacity and is 120 feet in total height or less. Examples of a single and particular use may include: To power a residence, or for watering cattle, and other agricultural purposes such as a center pivot irrigation system. Additionally, a single and particular use means that the WECS cannot be connected to any other WECS.
- (d) THE FOLLOWING ARE NOT CONSIDERED WECS: Small Structures mounted upon another structure with a rotor swept area of 100 square feet or less, having a maximum height of thirty feet measured from the ground to the tip of the blade. If all of these conditions are met, then such structures are exempt from Article VIII and therefore are subject to the regulations specifically identified in Article III - District Regulations as well as the Floodplain Regulations specifically identified in Article VII.

WIND TURBINE: A wind turbine is any piece of electrical generating equipment that converts the kinetic energy of wind into electrical energy.

8-200.

Small Scale Single Use Wind Energy Conversion Systems (WECS) Requirements

1. Application.

- (A) An application must accompany all proposed Small Scale Single Use WECS. This form is attached hereto as enclosure (1).
- (B) No Small Scale Single WECS shall be constructed, erected, installed, or located within Barton County unless all applicable requirements found in Section 8-200 have been met and a Building Permit has been issued.

2. Safety.

- (A) The minimum distance between the ground and any part of the rotor blade system shall be thirty (30) feet.
- (B) To limit climbing access, a fence six feet high with a locking portal shall be placed around the facility's tower base or the tower climbing apparatus shall be limited to no lower than 12 feet from the ground.

- (C) All access doors to wind turbine tower and electrical equipment shall be lockable and locked.
- (D) All wind turbines shall have an automatic break, governing or feathering system or other means to prevent uncontrolled rotation, over-speeding and excessive pressure on the tower structure, rotor blades, and turbine components.

3. Siting and Installation.

- (A) Use existing roads to provide access to the facility site, or if new roads are needed, minimize the amount of land used for new roads and locate them so as to minimize adverse environmental impacts.
- (B) Combine transmission lines and points of connection to local distribution lines.
- (C) Connect the facility to existing substations, or if new substations are needed, minimize the number of new substations.
- (D) All wiring between the Small Scale Single Use WECS and the Small Scale Single Use WECS meter and/or substation shall be underground.
- (E) The Small Scale Single Use WECS, if interconnected to a utility system, shall meet the requirements for interconnection and operation as set forth in the electric utility's current service regulations applicable to Small Scale Single Use WECS.
- (F) If an application to build in the conditionally permitted zone, as defined in Section 8-200. (6)(D)(2) is proposed, the Small Scale Single Use WECS must be sited in a manner to minimize hazards to migratory birds. It is recommended that the owner / operator reach out to Kansas Department of Wildlife and Park officials to seek advice on the best location for siting the Small Scale Single Use WECS to minimize hazards to migratory birds prior to submitting an application.

4. Setbacks.

- (A) The minimum setback distance between each Small Scale Single Use WECS and all overhead utility or transmission lines, other Small Scale Single Use WECS, electrical substations, meteorological towers, public roads, road right of way, dwellings

Wind Energy Conversion Systems

and other structures shall be equal to no less than 1.1 times the sum of the proposed total height.

- (B) Each Small Scale Single Use WECS shall be set back from the nearest property line a distance no less than 1.1 times its total height, unless appropriate easements are secured from adjacent property owners.

5. **Nuisance.**

- (A) Audible noise due to wind energy facility operations shall not exceed forty (40) dBA for any period of time, when measured outside of any residence, school, hospital, church, or public library existing on the date of approval of the Small Scale Single Use WECS.
- (B) The owner / operator shall minimize any interference with electromagnetic communications, such as radio, telephone, internet or television signals caused by any Small Scale Single Use WECS.

6. **Environmental and Visual.**

- (A) Small Scale Single Use WECS shall not be used for displaying any advertising except for reasonable identification of the manufacturer or operator of the Small Scale Single Use WECS.
- (B) All Small Scale Single Use WECS towers shall be white, grey or another non-obtrusive color with finishes that are matte or non-reflective. Blades may be black in order to facilitate deicing.
- (C) Avoid, to the extent practicable, the creation of artificial habitat for raptors or raptor prey, such as;
 - a) Electrical equipment boxes on or near the ground that can provide shelter and warmth.
 - b) Horizontal perching opportunities on the towers or related structures.
 - c) Or overgrown vegetation.

7. **Wind Zoning Map:**

Small Scale Single Use WECS shall have special permitting requirements in Barton County with reference to the Cheyenne Bottoms

Basin. Refer to the following for all proposed Small Scale Single Use WECS applications:

- (1) **Small Scale Single Use WECS - No Build Zone:** From the intersection of Susank Road and NW 120 Road, then east to the intersection of NE 120 Road and NE 110 Avenue, then south to the intersection of SE 110 Avenue and NE 40 Road, then west along NW 40 Road extending to the intersection of Washington Avenue, then north to the point of origin. The Small Scale Single Use No Build Zone shall include all land within the boundaries described that are in the unincorporated jurisdiction of Barton County.
- (2) **Small Scale Single Use - Conditionally Permitted Zone:** From the intersection of NW 30 Avenue and NW 140 Road, then east to the intersection of NE 140 Road and NE 140 Avenue, then south to the intersection of SE 140 Avenue and NE 10 Road, then west to the intersection of NW 10 Road and SW 30 Avenue, then north to the point of origin.

The Small Scale Single Use Conditionally Permitted Zone shall include all land within the boundaries described exclusive of the Small Scale Single Use WECS - No Build Zone. All proposed Small Scale Single Use WECS shall follow the Conditional Land Use Permit (CLUP) process as set forth in the Barton County Zoning Regulations, Version II and as part of the process Kansas Department of Wildlife & Parks and The Nature Conservancy will be provided with a copy of the application and given an opportunity to comment, with the final determination being made by Barton County.

- (3) **Map “Wind Zoning Map” Boundaries for Small Scale Single Use WECS:** This map is attached hereto as labeled above and is one of three official Barton County Zoning Maps and shall be recognized as such.
- (4) Small Scale Single Use WECS will be permitted, conditionally permitted, or not permitted based on the location of the proposed Small Scale Single Use WECS with respect to the “Wind Zoning Map” Regulations set out in Article VIII – Wind Energy Conversion Systems, as well as the land use district as established in the table below:

DISTRICT	SMALL SCALE SINGLE-USE WECS
(A) Agricultural	Permitted
(R) Residential	Conditionally Permitted
(C) Commercial	Conditionally Permitted
(I) Industrial	Permitted
(LMSC) Light Manufacturing Service Commercial	Conditionally Permitted
(UC) Unincorporated Community	Conditionally Permitted
(PL) Planned Community	Conditionally Permitted

8-300. Large Scale Non-Commercial Wind Energy Conversion Systems (WECS) Regulations

A. Purpose of Regulation.

It is the purpose of this article to provide details related to any application for a Large Scale Non-Commercial WECS project, create a process to consider issuing a permit for the development of these projects, and identify significant environmental, social and economic impacts related to the WECS project.

B. Intent of Regulations.

It is the intent of these regulations to address major issues associated with the project; however, issues that are not listed and that are deemed significant during the course of review will be addressed with the review and conditions of each individual CLUP.

- 1) These regulations specify the plans, information surveys, and studies that must be submitted as part of the CLUP application.
- 2) Appropriate locational criteria for siting a Large Scale Non-Commercial WECS are provided.
- 3) Standards are provided to:
 - a. Ensure the land remains viable for its original use following decommissioning;
 - b. Minimize the impact of the system on nearby properties;
 - c. Minimize negative environmental impacts;
 - d. Ensure reclamation of the site; and
 - e. Provide appropriate decommissioning and disposal measures.

8-301. Review Considerations.

As part of the CLUP process set forth in the Barton County Zoning Regulations, Version II, Kansas Department of Wildlife and Parks and The Nature Conservancy will be provided a copy of each permit application for a Large Scale Non-Commercial WECS and given the opportunity to comment.

8-302. Applicability.

These standards and regulations apply to Large Scale Non-Commercial WECS proposed in the unincorporated jurisdiction of Barton County.

8-303. Conditions Required For Approval.

The following conditions shall be evaluated with the review of any application:

- a. The owner / operator shall demonstrate their ability to strictly conform to all applicable performance standards detailed in these regulations as well as applicable local, state, and federal laws or regulations.
- b. Key issues to be considered with the review of the application include, but are not limited to:
 - 1) Visual impact;
 - 2) Impact on wildlife habitat/native flora and fauna;
 - 3) Impact on cultural, historical, or archeological features;
 - 4) Impact on critical wildlife habitats, current state-listed threatened and endangered species, and species in need of conservation as defined by Kansas Department of Wildlife and Parks;
 - 5) Impact on environmentally sensitive lands;
 - 6) Impact on water quality and soil erosion;
 - 7) Impact on infrastructure, including roads and bridges for construction access;
 - 8) Aviation/Federal Aviation Administration (FAA) impacts;
 - 9) Cumulative impacts;
 - 10) Company experience, reputation, and financial ability;
 - 11) Decommissioning, removal, reclamation, and disposal plans;
 - 12) Bond agreement or other means of ensuring reclamation, disposal, and decommissioning performance;
 - 13) Specific requirements for building and construction;
 - 14) Emergency services and training requirements;
 - 15) Degree to which agricultural uses and wildlife habitat are accommodated with the system layout and design;
 - 16) Results of a KDWP Ecological Review;
 - 17) Results of a review of the Project Area by the Kansas State Historic Preservation Office, including an archeological survey by a professional

- archeologist meeting the Minimum Professional Qualifications set forth by that office if requested by the Kansas State Historic Preservation Office. The survey of the Project Area must be completed prior to beginning construction and shall be funded by the owner / operator; and
- 18) Impact on the Wetlands & Wildlife National Scenic Byway.

8-304. Standards

The following standards apply to all Large Scale Non-Commercial WECS except where specifically noted:

1) **Design and Installation**

- a. WECS shall conform to applicable industry standards, including those of the American National Standards Institute (ANSI). The owner / operator shall submit certificates of design compliance that equipment manufacturers have obtained.
- b. Following the granting of a siting approval, and a CLUP under this Regulation, a professional structural engineer shall certify, as part of the Building Permit Application, that the foundation and tower design of the WECS is within accepted professional standards, given local soil, and climate conditions.

2) **Controls and Brakes**

All WECS shall be equipped with a redundant braking system. This includes both aerodynamic over speed controls (including variable pitch, tip, and other similar systems) and mechanical brakes. Mechanical brakes shall be operated in a failsafe mode. Stall regulation shall not be considered a sufficient break system for over speed protection.

3) **Electrical Components**

- a. All electrical components of the WECS shall conform to applicable local, state, and national codes, and relevant national and international standards e.g., ANSI and International Electrical Commission.
- b. All new electrical cable lines associated with the WECS facility shall be installed at a minimum of 48 inches underground.

4) **Large Scale Non-Commercial WECS Tower Height**

No Large Scale Non-Commercial WECS tower shall be greater than one hundred, twenty (120) feet in height. Rotor blade height shall be a minimum

of thirty (30) feet above the base of the WECS tower.

5) **WECS Tower Color**

Tower, nacelle, and rotor blades shall be painted a uniform, non-reflective neutral color such as white or gray. No logos or advertisements shall be allowed on these structures. Each turbine tower shall be marked with a visible identification number located no higher than 15 feet above the ground.

6) **WECS Tower Consistency**

The WECS shall consist of turbines of similar design and size, including tower height. All turbines shall rotate in the same direction. Turbines shall be consistent in color and direction with nearby WECS systems.

7) **WECS Tower Obstruction Marking and Lighting Requirements**

- a. All WECS towers shall be fitted with Aircraft Detection Lighting Systems (ADLS) in compliance with Kansas Senate Bill #49. ADLS must be in compliance with Federal Aviation Administration (FAA) standards. The WECS project shall comply with but not exceed all acceptable FAA standards.
- b. The WECS project shall be equipped with the IdentiFlight Aerial Detection System, or equivalent technology, to prevent unnecessary bird fatalities.
- c. The WECS project shall be equipped with Natural Power's EchoSense, NGR Systems, Bat Deterrent System, or equivalent technology to prevent unnecessary bat fatalities.
- d. The WECS project shall be equipped with passive fire protection which shall include lightning protection systems, monitoring systems of components/equipment and compartmentalizing the nacelle area.
- e. The WECS project shall be equipped with FIRETRACE, Stat-X Aerosol Fire Suppression, or equivalent fire suppression technology to provide instant fire alarm and fire suppression.

8) **Warnings**

- a. A reasonably visible warning sign concerning voltage must be placed at the base of all pad-mounted transformers and substations.
- b. MET Tower fencing or visibility markers shall be placed at the anchor points of guy wires. Visibility markers shall be placed

Wind Energy Conversion Systems

intermittently on the guy wires to the top of the MET Tower. Depending on height, FAA standards may require MET Tower aviation lighting. Red obstruction lights are preferred over white strobe lights. MET Tower must be in compliance with FAA standards.

- c. On and after July 1, 2023, no new wind energy conversion system shall commence commercial operations in the State of Kansas unless the developer, owner, or operator of the wind energy conversion system applies to the federal aviation administration for installation of a light-mitigating technology system that complies with federal aviation administration regulations 14 C.F.R. § 1.1 et seq. If approved by the federal aviation administration, the developer, owner, or operator of such wind energy conversion system shall install the light-mitigating technology system on approved turbines within 24 months after receipt of such approval.

9) **Climb Prevention**

All towers must be unclimbable by design or protected by anti-climbing devices including, but not limited to:

- a. Fences with locking portals at least six (6) feet in height, or
- b. Anti-climbing devices twelve (12) feet vertically from the base of the tower.

10) **Setbacks**

All Large Scale Non-Commercial WECS towers shall be set back at a distance of not less than six (6) times the height of the WECS tower from all property lines. Both a participating landowner and a non-participating landowner may waive this setback requirement, but in no case shall a Large Scale Non-Commercial WECS tower be located closer to a structure than one and one half (1.5) times the height of the WECS tower.

- a. The owner / operator does not need to obtain a variance from Barton County upon waiver by any landowner requirements. Said waiver of the above setback shall run with the land and be recorded as part of the chain of title in the deed of the subject property. A certified copy of any waiver must accompany the application submitted to Barton County.

11) **Compliance with Additional Regulations**

Nothing in these regulations is intended to preempt other applicable state or federal laws and regulations.

12) **Public Roads Maintenance, Repair and Replacement Agreement**

The owner / operator proposing to use any county or township roads for the purpose of transporting WECS shall identify all such roads used for transportation routes for construction, operation, or maintenance of WECS. Any road damage caused by the transport of equipment, construction, maintenance, or decommissioning of the WECS, must be completely repaired to the reasonable satisfaction of the County Engineer and the County Township Board.

13) **Operation**

a) **Interference:**

The owner / operator will be required to mitigate interference with weather surveillance radar and communications including emergency service providers (e.g.: 911 service, police, fire), cell phones, internet, tv, radio and weather alerts.

b) **Shadow Flicker:**

No shadow flicker shall occur beyond the property line.

c) **Coordination with Local Fire Departments and Emergency Responders:**

- i) The owner / operator shall submit to the local emergency responders a copy of the site plan. Emergency responders include local law enforcement, fire protection district, emergency medical service providers, and Barton County Emergency Management.
- ii) Nothing in this section shall alleviate the need to comply with all other applicable fire, emergency and safety laws and regulations.

d) **Materials Handling, Storage, and Disposal:**

- i) All solid wastes related to the construction, operation, and maintenance of the WECS shall be removed from the site promptly and disposed of in accordance with all federal, state, and county laws.
- ii) All hazardous materials related to the construction, operation, and maintenance of the WECS shall be handled, stored, transported, and disposed of in accordance with all federal, state, and county laws.

14) **Audible Sound Limits:**

- a) Audible noise due to wind energy facility operations shall not exceed forty (40) dBA for any period of time, when measured outside of any residence, school, hospital, church, or public library existing on the date of approval of the Large Scale Non-Commercial WECS.
- b) The owner / operator shall minimize any interference with electromagnetic communications, such as radio, telephone, internet or television signals caused by any Large Scale Non-Commercial WECS.

15) **Public Participation:**

Nothing in the regulation is meant to deter or diminish opportunities for public participation, such as public hearings and open meetings on a case-by-case basis.

16) **Liability Insurance:**

The owner or operator of the WECS shall provide a certificate of liability insurance.

17) **Decommissioning and Site Reclamation Plan Requirement:**

The owner / operator shall ensure that the WECS facilities are properly decommissioned within 12 months of the end of the project life or the facility abandonment. The owner / operator's obligations shall include removal of all equipment and physical materials (buildings, towers, transformers, above and below ground electric lines, concrete etc.), and the restoration of the area as near as practicable to the same condition prior to construction. These provisions shall be binding upon the WECS owner or operator and any of their successors, assigns, or heirs.

18) **Future Operators:**

Future operators, successors, assignees, or heirs shall agree in writing to accept and to conform to all provision of the CLUP. Prior notice to the County of the intent to sell or transfer ownership shall be done in ninety (90) days. Such agreement shall be filed with and accepted by the County before the transfer to a new operator, successor, assignees, or heirs shall be affective.

19) **Airspace Overlay or Airstrip:**

If a system is proposed to be placed within an Airspace Overlay (ASO) District or within five (5) miles of any airstrip, the owner / operator shall

provide acknowledgement of location approval or acceptance from the Federal Aviation Administration with the CLUP Application.

8-305. Application and Required Documents.

An application must accompany all proposed Large Scale Non-Commercial WECS.

No Large Scale Non-Commercial WECS shall be constructed, erected, installed, or located within Barton County unless all applicable requirements found in Section 8-303 have been met and a Building Permit has been issued.

a. Existing Conditions.

A physical and digital site plan of existing conditions on all properties included in the Project Area showing the following (digital site plan must be formatted to toggle each layer off and on):

- 1) Existing property lines and property lines extending one hundred (100) feet from the exterior boundaries of the Project Area, including the names of the adjacent property owners and current use of those properties, as determined by site inspection or from the Barton County Appraiser's Office. (This information is available from the Barton County website under Property Search / Appraiser Portal.)
- 2) All recorded leases, and easements included in the Project Area, with type and recording information, and the location and width of all public road rights-of-way;
- 3) Existing points of ingress and egress to the Project Area;
- 4) Location and size of any known wells (oil, water, geothermal, etc.);
- 5) Existing buildings and any paved or gravel surfaces, with dimensions;
- 6) Map of residential uses and structures within 1,000-feet of the WECS boundary;
- 7) Presence of any critical habitat for threatened or endangered species as determined by Kansas Department of Wildlife and Parks; and
- 8) The location of any underground pipelines and all utility easements including, but not limited to railroad and drainage easements.

b. Proposed Conditions.

A physical and digital site plan of proposed conditions showing the following:

- 1) Number, location and spacing of towers and all appurtenant structures, including existing and proposed Met Towers;
- 2) Name and address of owner / operator;
- 3) Location and width of access drives;
- 4) Planned location of underground and overhead electric lines connecting the WECS to any building, substation, or other electric load;
- 5) Proposed phasing schedule;
- 6) New electrical equipment other than at an existing building or substation that is the connection point for the WECS;
- 7) Environmentally sensitive lands to be protected;
- 8) Clearly delineated limits of proposed land disturbance or vegetation removal for all phases of construction and operation;
- 9) Location and height of any proposed lighting;
- 10) Locations with descriptions and sizes of planned temporary construction laydown yards;
- 11) Wiring diagram for the Project Area;
- 12) Approximate limits of disturbance for all temporary and permanent project components associated with the Project Area; and
- 13) Utility easements including, but not limited to, easements for transmission and interconnection.

c. Additional Materials.

The following shall be submitted with the application:

- 1) Manufacturer's specification and recommended installation methods for all major equipment, including the towers, wind turbines, mounting systems and foundations;
- 2) A preliminary equipment specification sheet that documents the proposed components, inverters, and associated electrical equipment being installed;
- 3) A copy of the interconnection agreement with the electric utility shall be

provided;

4) Emergency Services, Fire, and Safety Plan:

A plan including all means of managing an Extraordinary Event at the WECS Project Area shall include, but will not be limited to, the following:

- 1) Emergency contact information, which shall also be posted on the Project Area.
- 2) Description of how the fire safety system and its associated controls will function and be maintained in proper working order.
- 3) Fire protection and suppression systems.
- 4) Site control measures during and after any emergency. All means of managing an emergency, including shutting down the WECS, shall be noted and clearly marked.
- 5) Material Safety Data Sheet (MSDS) unless the WECS meets the reporting thresholds of Emergency Planning and Community Right to Know (EPCRA) Act in which case the owner / operator shall provide and submit a Tier II report if required by the EPA. The EPA requires Tier II reports on facilities that store hazardous chemicals above certain threshold quantities.
- 6) Electrical shock hazards and possible contact with hazardous substances or toxic fumes shall be identified.
- 7) The owner / operator shall update the Emergency Services and Fire Safety Plan annually in collaboration with Barton County Emergency Management and provide new copies to the WECS owner / operator, the local fire district, emergency response agencies, Barton County Emergency Management, and the Barton County Zoning Administrator.
- 8) Any specialty response equipment required to adequately manage Extraordinary Events will be provided, updated, and / or replaced by the owner / operator, as needed and at the owner / operator's expense.

d. **Abandonment, Decommissioning, and Reclamation Plan:**

A decommissioning and reclamation plan shall be required to ensure that WECS components are safely removed after their useful life.

Decommissioning of wind turbines must occur in the event that they do not produce electricity, have no demonstrated plan to restore to operating condition, and before the end of the lifespan of the CLUP.

e. **Bond Requirements:**

The owner / operator shall post a bond with the Barton County Clerk, establish an escrow account, or provide such other financial security deemed acceptable by Barton County, in an amount equal to the estimated decommissioning costs, to ensure proper decommission and reclamation of the site.

f. **Wind Zoning Map:**

Large Scale Non-Commercial WECS shall have special permitting requirements in Barton County with reference to the Cheyenne Bottoms Basin. Refer to the following for all proposed Large Scale Non-Commercial WECS applications:

- (1) **Large Scale Non-Commercial - No Build Zone:** From the intersection of Susank Road and NW 120 Road, then east to the intersection of NE 120 Road and NE 110 Avenue, then south to the intersection of SE 110 Avenue and NE 40 Road, then west along NW 40 Road extending to the intersection of Washington Avenue, then north to the point of origin. The Large Scale Non-Commercial No Build Zone shall include all land within the boundaries described that are in the unincorporated jurisdiction of Barton County.
- (2) **Map “Wind Zoning Map” Boundaries for Large Scale Non-Commercial WECS:** This map is attached hereto as labeled above and is one of three official Barton County Zoning Maps and shall be recognized as such.
- (3) Large Scale Non-Commercial WECS will be conditionally permitted or not permitted based on the location of the proposed Large Scale Non-Commercial WECS with respect to the “Wind Zoning Map,” Regulations set out in Article VIII – Wind Energy Conversion Systems, as well as the land use district as established in the table below:

DISTRICT	LARGE SCALE NON-COMMERCIAL WECS
(A) Agricultural	Conditionally Permitted
(R) Residential	Conditionally Permitted
(C) Commercial	Conditionally Permitted
(I) Industrial	Conditionally Permitted
(LMSC) Light Manufacturing Service Commercial	Conditionally Permitted
(UC) Unincorporated Community	Conditionally Permitted
(PL) Planned Community	Conditionally Permitted

8-400. Commercial Scale Wind Energy Conversion Systems (WECS) Regulations

- A. **Purpose of Regulation.** It is the purpose of this article to provide details related to any application for a Commercial Scale WECS project, create a process to consider issuing a permit for the development of these projects, and identify significant environmental, social, and economic impacts related to the WECS project as well as preserving property values of Non-Participating Landowners.
- B. **Intent of Regulations.** It is the intent of these regulations to address major issues associated with the project; however, issues that are not listed and that are deemed significant during the course of review will be addressed with the review and conditions of each individual CLUP.
- 1) These regulations specify the plans, information surveys, and studies that must be submitted as part of the CLUP application.
 - 2) Appropriate locational criteria for siting a Commercial Scale WECS are provided.
 - 3) Standards are provided to:
 - a. Ensure the land remains viable for its original use following decommissioning;
 - b. Minimize the impact of the system on nearby properties;
 - c. Minimize negative environmental impacts;
 - d. Ensure reclamation of the site; and
 - e. Provide appropriate decommissioning and disposal measures.

8-401. Review Considerations.

As part of the CLUP process set forth in the Barton County Zoning Regulations, Version II, Kansas Department of Wildlife and Parks and The Nature Conservancy will be provided with a copy of each permit application for a Commercial Scale WECS and given the opportunity to comment.

8-402. Applicability.

These standards and regulations apply to Commercial Scale WECS proposed in the unincorporated jurisdiction of Barton County.

8-403. Conditions Required For Approval.

The following conditions shall be evaluated with the review of any application:

- a. The owner / operator shall demonstrate their ability to strictly conform to all applicable performance standards detailed in these regulations as well as applicable local, state, and federal laws or regulations.
- b. Key issues to be considered with the review of the application include, but are not limited to:
 - 1) Visual impact;
 - 2) Impact on wildlife habitat/native flora and fauna;
 - 3) Impact on cultural, historical, or archeological features;
 - 4) Impact on critical wildlife habitats, current state-listed threatened and endangered species, and species in need of conservation as defined by Kansas Department of Wildlife and Parks;
 - 5) Impact on environmentally sensitive lands;
 - 6) Impact on water quality and soil erosion;
 - 7) Impact on infrastructure, including roads and bridges for construction access;
 - 8) Aviation/Federal Aviation Administration (FAA) impacts;
 - 9) Cumulative impacts;
 - 10) Company experience, reputation, and financial ability;
 - 11) Decommissioning, removal, reclamation, and disposal plans;
 - 12) Bond agreement or other means of ensuring reclamation, disposal, and decommissioning performance;
 - 13) Specific requirements for building and construction;
 - 14) Emergency services and training requirements;
 - 15) Degree to which agricultural uses and wildlife habitat are accommodated with the system layout and design;
 - 16) Results of a KDWP Ecological Review;
 - 17) Results of the National Environmental Policy Act Review (NEPA) on all Commercial Scale WECS applications;
 - 18) Results of a review of the Project Area by the Kansas State Historic Preservation Office, including an archeological survey by a professional archeologist meeting the Minimum Professional Qualifications set forth by that office if requested by the Kansas State Historic Preservation Office. The survey of the Project Area must be completed prior to beginning construction and shall be funded by the owner / operator; and
 - 19) Impact on the Wetlands & Wildlife National Scenic Byway.

8-404. **Standards**

The following standards apply to all Commercial Scale WECS except where specifically noted:

- 1) **Design and Installation**

Wind Energy Conversion Systems

- a. WECS shall conform to applicable industry standards, including those of the American National Standards Institute (ANSI). The owner / operator shall submit certificates of design compliance that equipment manufacturers have obtained from Underwriters Laboratories (UL), Det Norske Veritas (DNV), Germanischer Lloyd Wind Energie (GL), or an equivalent third-party.
- b. Following the granting of a siting approval, and a CLUP under this Regulation, a professional structural engineer shall certify, as part of the Building Permit Application that the foundation and tower design of the WECS is within accepted professional standards, given local soil, and climate conditions.

2) **Controls and Brakes**

All WECS shall be equipped with a redundant braking system. This includes both aerodynamic over speed controls (including variable pitch, tip, and other similar systems) and mechanical brakes. Mechanical brakes shall be operated in a failsafe mode. Stall regulation shall not be considered a sufficient braking system for over speed protection.

3) **Electrical Components**

- a. All electrical components of the WECS shall conform to applicable local, state, and national codes, and relevant national and international standards e.g., ANSI and International Electrical Commission.
- b. All new electrical cable lines associated with the WECS facility shall be installed a minimum of 48 inches underground. Transmission lines associated with distribution and interconnection of energy from the facility may be located above ground.

4) **Commercial Scale WECS Tower Height**

No Commercial Scale WECS tower shall be less than one hundred, twenty (120) feet in height and no greater than four hundred, thirty (430) feet in height. Rotor blade height shall be a minimum of thirty (30) feet above the base of the WECS tower.

5) **WECS Tower Color**

Tower, nacelle, and rotor blades shall be painted a uniform, non-reflective neutral color such as white or gray. No logos or advertisements shall be allowed on these structures. Each turbine tower shall be marked with a visible identification number located no higher than 15 feet above the ground.

6) **WECS Tower Consistency**

The WECS shall consist of turbines of similar design and size, including tower height. All turbines shall rotate in the same direction. Turbines shall be consistent in color and direction with nearby WECS systems.

7) **WECS Tower Obstruction Marking and Lighting Requirements**

- a. All WECS towers shall be fitted with Aircraft Detection Lighting Systems (ADLS) in compliance with Kansas Senate Bill #49. On and after July 1, 2023, no new wind energy conversion system shall commence commercial operations in the State of Kansas unless the developer, owner, or operator of the wind energy conversion system applies to the federal aviation administration for installation of a light-mitigating technology system that comply with federal aviation administration regulations 14 C.F.R. § 1.1 et seq. If approved by the federal aviation administration, the developer, owner or operator of such WECS shall install the light-mitigating technology system on approved turbines within 24 months after receipt of such approval.
- b. The WECS project shall be equipped with the IdentiFlight Aerial Detection System, or equivalent technology, to prevent unnecessary bird fatalities.
- c. The WECS project shall be equipped with Natural Power's EchoSense, NGR Systems, Bat Deterrent System, or equivalent technology to prevent unnecessary bat fatalities.
- d. The WECS project shall be equipped with passive fire protection which shall include lightning protection systems, monitoring systems of components/equipment and compartmentalizing the nacelle area.
- e. The WECS project shall be equipped with FIRETRACE, Stat-X Aerosol Fire Suppression, or equivalent fire suppression technology to provide instant fire alarm and fire suppression.

8) **Warnings**

- a. A reasonably visible warning sign concerning voltage must be placed at the base of all pad-mounted transformers and substation.
- b. MET Tower fencing or visibility markers shall be placed at the anchor points of guy wires. Visibility markers shall be placed intermittently on the guy wires to the top of the MET Tower. Depending on height, FAA standards may require MET Tower aviation lighting. Red obstruction lights are preferred over white strobe lights. MET Tower must be in compliance with FAA standards.

9) **Climb Prevention**

All MET towers must be un-climbable by design or protected by anti-climbing devices including, but not limited to:

- a. Fences with locking portals at least six (6) feet in height, or
- b. Anti-climbing devices twelve (12) feet vertically from the base of the WECS tower.

10) **Setbacks**

- a. There shall be a setback distance from Commercial Scale WECS towers of at least one (1) mile to non-participating property lines or 10 times the total height of the turbine, whichever is greater. Both a participating landowner and a non-participating landowner may waive this setback requirement, but in no case shall a Commercial Scale WECS tower be located closer to a structure than one and one half (1.5) times the height of the Commercial Scale WECS tower.
- b. All WECS and MET towers shall be set back at a distance of not less than two (2) times the height of the WECS or MET tower from all public roads, railroad right of ways, public utilities, including, but not limited to, fiber optic lines, communication towers, above and below ground communication lines, above and below ground electric lines, oil, gas, and water pipelines.
- c. All WECS and MET towers shall be set back at a distance of not less than three (3) miles from a municipality. A municipality may waive this setback requirement through the issuance of a formal statement from the municipality approving such a waiver. The owner / operator shall then submit a copy of the statement as part of their application, and a site plan specifically identifying: the location of the three (3) mile base setback, the locations of all WECS towers proposed to be within these three (3) miles; and the distance each proposed WECS tower within these three (3) miles will be from the municipal boundaries.
- d. All WECS and MET towers shall be set back at a distance of not less than three (3) miles from incorporated cities, unincorporated cities, airports, recreation areas. Incorporated cities include Albert, Claflin, Ellinwood, Galatia, Great Bend, Hoisington, Olmitz, Pawnee Rock, Susank. Unincorporated cities include Beaver, Dundee, Heizer, Hitschmann, Odin, and Redwing. Recreation areas include but are not limited to the Cheyenne Bottoms Wildlife Area. The three-mile setback distance also includes but are not limited to the Kansas Department of Wildlife and Parks (KDWP) hunting areas, The Nature Conservation owned and protected areas as well as Ducks Unlimited owned and protected areas found within Barton County.

Wind Energy Conversion Systems

- e. WECS and Met towers shall be set back at least one and one-half (1.5) miles from any identified or occupied eagle's nest. Should an eagle's nest be identified or constructed within one and one-half (1.5) miles of a WECS tower post construction, the WECS tower or towers will be curtailed from operation during the nesting season from January 15 to May 15.
- f. The owner / operator does not need to obtain a variance from Barton County upon waiver by any landowner requirements. Said waiver of the above setbacks shall run with the land and be recorded as part of the chain of title in the deed of the subject property. A certified copy of any waiver must accompany the application submitted to Barton County.

11) **Compliance with Additional Regulations**

Nothing in regulation is intended to preempt other applicable state or federal laws and regulations.

12) **Public Roads Maintenance, Repair and Replacement Agreement**

The owner / operator proposing to use any county, or township roads for the purpose of transporting WECS or substation parts and/or equipment for construction, operation, or maintenance of the WECS(s) or substation(s) shall:

a) **Road Agreement:**

A mandatory road agreement that includes all affected jurisdictions within Barton County (county or township) must be agreed upon by all parties and recorded with the County Clerk. A signed agreement must be recorded prior to the issuance of the CLUP. The agreement shall include, but not be limited to:

- i) Identify all such public roads used for transportation routes for construction, operation, or maintenance of WECS.
 - ii) The owner / operator shall obtain the approval of the County Engineer for transporting the components for the WECS project that are over the legal limit for weight, width, and length. Proposed routes submitted for the oversized/overweight loads. The County is authorized to collect fees for overweight/oversized load permits as applicable.
 - iii) Obtain applicable weight and size permits and approvals from all relevant government agencies.
- b) To the extent an owner / operator must obtain approval of the routes for oversize/overweight loads from the county or township, the owner / operator shall:

- i) At the expense of the owner / operator the County will hire a professional engineer for pre-construction and post-construction inspection and documentation of public roads, bridges, culverts, box culverts, road drainage ditches, and low water crossings.
- ii) At the expense of the owner / operator the County will hire a certified inspector to monitor County public road conditions during construction. The certified inspector will notify the County Engineer of construction related road conditions, including but not limited to hazards, signage, repairs, dust control, or Road Agreement violations that need corrective action.
- iii) Provide a plan for dust control on public roads during the construction and decommissioning of the WECS project to the reasonable satisfaction of the County Engineer and the County Commissioners.
- iv) Provide a maintenance plan for public roads and maintain the public roads during construction and decommissioning of the WECS project to the reasonable satisfaction of the County Engineer and County Commissioners.
- v) Where an access road crosses a stream or drainage way, it shall be designed and constructed so runoff from the upper portions of the watershed can readily flow into the lower portion of the watershed.
- vi) Any proposed public roads that will be used for construction purposes shall be identified and approved in writing by the County Engineer and the County Commissioners prior to the granting of the CLUP. Traffic for construction purposes shall be limited to these roads. All overweight and/or oversized loads to be transported on public roads may require a permit from the respective highway authority. Any road damage caused by the transport of equipment, construction, maintenance, or decommissioning of the WECS must be completely repaired to the reasonable satisfaction of the County Engineer and the County Commissioners. The County is authorized to collect fees for overweight and/or oversized load permits. Financial assurance will be provided at an amount to be determined by the County Commissioners to ensure that future repairs are completed to the satisfaction of the County. Owner / operator shall submit a draft form of said financial assurance with the application for WECS CLUP.
- vii) Enter into a public road use agreement with the County and all affected jurisdictions. Provisions include, but are not limited to:

- 1) Project layout map
 - 2) Transportation impact analysis
 - 3) Pre-construction plans
 - 4) Construction plans
 - 5) Post-construction repairs
 - 6) Project traffic map
 - 7) Signage
 - 8) Insurance
 - 9) Financial Security in forms and amounts acceptable to the County. The road use agreement shall require the owner / operator to be responsible for the reasonable cost of improving public roads, bridges, culverts, box culverts, road drainage ditches, and low water crossings used to construct the WECS and the reasonable cost of repairing roads used by the facility owner during construction of the WECS so that those roads are in a condition that is safe for the driving public after the completion of the WECS construction. Roadways improved in preparation for and during the construction of the WECS shall be repaired and restored to the improved condition at the reasonable cost of the developer if the roadways have degraded or were damaged as a result of construction-related activities.
- c) All repairs and improvements to County public roads and roadway appurtenances shall be subject to the prior approval of the County before being made and shall also be subject to inspection and acceptance by the County after such repairs and improvements are completed. The County's road use agreement, and any further agreements contemplated therein, regarding the maintenance and repair of County public roads and highways, must be approved by the County prior to the approval of any applications related to the construction of the proposed WECS project.
- d) Prior to construction and again upon completion of construction, all public roads, bridges, culverts, box culverts, road drainage ditches, and low water crossings to be used must be brought up to a load limit of 85,000 pounds of the current State legal load limit.
- e) Secure financial assurance, in a reasonable amount agreed to by the County Engineer and County Commissioners and all relevant parties, for the purpose of repairing or replacing any and all damage, including, but not limited to public roads, bridges, culverts, box culverts, road drainage ditches and low water crossings caused by constructing, operating, or maintaining the WECS.
- f) WECS repowering and decommissioning may require new mandatory road agreements that include all affected jurisdictions.

13) **Operation**

a) **Maintenance:**

- i) The owner or operator of the WECs must submit, on an annual basis, a summary of the operation and maintenance reports to the Barton County Zoning Administrator. In addition to the above annual summary, the owner or operator must furnish such operation and maintenance reports as the County reasonably requests.
- ii) Any physical modification to the WECS that alters the mechanical load, mechanical load path, or major electrical components shall require recertification under Section 8-404. 1)(a)(b) of this document. Like-kind replacements shall not require recertification. Prior to making any physical modifications (other than like-kind replacements) the owner or operator shall confer with a third-party certifying entity identified in Section 8-404. 1)(a)(b) to determine whether the physical modification requires recertification.

b) **Interference:**

The owner / operator will be required to mitigate interference during the life of the WECS.

- i) Interference shall include but is not limited to noise, and communications including emergency service providers (e.g.: 911 service, police, fire), cell phones, internet, tv, radio and weather alerts.
- ii) Prior to the construction of any wind turbines, the owner or operator shall conduct a study to establish the baseline status of all RF/EMF transmissions in the area of the turbines, with copies of the study to be supplied to the County.
- iii) The owner / operator shall provide the applicable microwave transmission providers and local emergency service providers (e.g.: 911 operators) copies of the project summary and site plan, as set forth in Section 8-404. d)(i)-(iv) of this regulation. The owner / operator shall provide evidence that any potential interference has been resolved to the satisfaction of the providers.
- iv) If, after construction of the WECS, the County receives a written complaint related to the above mentioned interference, the County shall have the right to investigate and require mitigation.
- v) No shadow flicker shall occur beyond the property line.

c) **Coordination with Local Fire Departments and Emergency Responders:**

- i) The owner / operator shall submit to the local emergency responders a copy of the site plan. Emergency responders include local law enforcement, fire protection district, emergency medical service providers, and Barton County Emergency Management.
- ii) The owner / operator shall cooperate with all local emergency responders to develop an emergency response plan. The plan should include contact information (names, titles, e-mail addresses, cell phone numbers) for the owner / operator and at least three (3) WECS representatives, each of whom are on call 24 hours a day, seven (7) days a week, 365 days per year. Any change in the contact information shall be promptly communicated to the Barton County Zoning Administrator.
- iii) The owner / operator shall at its expense provide annual training for, and the necessary equipment to the operator and local emergency response authorities and their personnel so they can properly respond to a potential emergency at the WECS in compliance with the emergency response plan.
- iv) Nothing in this section shall alleviate the need to comply with all other applicable fire, emergency and safety laws and regulations.

d) **Materials Handling, Storage, and Disposal:**

- i) All solid wastes related to the construction, operation, and maintenance of the WECS shall be removed from the site promptly and disposed of in accordance with all federal, state, and county laws.
- ii) All hazardous materials related to the construction, operation, and maintenance of the WECS shall be handled, stored, transported, and disposed of in accordance with all federal, state, and county laws.

14) **Audible Sound Limits:**

- a) Audible noise due to wind energy facility operations shall not exceed forty (40) dBA for any period of time, when measured outside of any residence, school, hospital, church, or public library existing on the date of approval of the Commercial Scale WECS.
- b) There shall be a setback distance from wind turbines of at least one (1) mile to non-participating property lines or 10 times the total height of the turbine, whichever is greater.

- c) The owner / operator shall minimize any interference with electromagnetic communications, such as radio, telephone, internet, or television signals caused by any Commercial Scale WECS.

15) **Public Participation:**

Nothing in these regulations is meant to deter or diminish opportunities for public participation, such as public hearings and open meetings on a case-by-case basis.

16) **Liability Insurance:**

The owner / operator of the WECS shall maintain a current general liability policy covering bodily injury and property damage per occurrence, and the aggregate shall be based on each conditional land use application.

17) **Decommissioning and Site Reclamation Plan Requirement:**

At the time of the CLUP application, the County and the owner / operator must formulate a decommissioning and site reclamation plan to ensure that the WECS project is properly decommissioned. The decommissioning and site reclamation plan shall be binding upon successors in interest to the project in addition to all successors of title to the land. Any successors of interest to the owner / operator must assume responsibility for the decommissioning and site reclamation plan and must demonstrate the financial ability to complete the plan. A signed decommissioning and site reclamation plan must be submitted to the Barton County Zoning Administrator prior to the granting of the CLUP.

The owner / operator shall ensure that the WECS facilities are properly decommissioned within 12 months of the end of the project life or the facility abandonment. The owner / operator's obligations shall include removal of all equipment and physical materials (buildings, towers, transformers, above and below ground electric lines, concrete etc.), and the restoration of the area as near as practicable to the same condition prior to construction.

- i) A decommissioning and site reclamation plan shall be prepared by a professional engineer and shall include:
 - 1) Provisions describing the triggering events for decommissioning the WECS project.
 - 2) A description of the methodology and cost to remove all above ground and below ground WECS facilities of the approved CLUP. Reverse construction shall be the method used for removing the WECS towers.
 - 3) Provisions for the removal of all above ground and below ground WECS facilities of the approved CLUP.

Wind Energy Conversion Systems

- 4) Methodology and cost to restore all areas used for construction, operation, and access to a condition equivalent to the land prior to the construction of WECS.
- 5) A work schedule and a permit list necessary to accomplish the required work.
- 6) Methodology to identify and manage any hazardous or special materials.
- 7) Proof that the necessary amount and form of financial security has been received by the County in the form of an escrow account that names Barton County as the Beneficiary. The amount of security shall be equal to the positive difference between the total cost of all decommissioning and restoration work and the net salvage value of all removed WECS equipment or materials, plus a twenty-percent contingency. To determine that amount, the WECS owner and the Barton County Commissioners shall:
 - a) Obtain bid specifications provided by a professional engineer.
 - b) Request estimates from construction/demolition companies capable of completing the decommissioning of the WECS project; and a professional engineer of the County's choice, the Barton County Zoning Administrator will review all estimates and make a recommendation to the Barton County Commissioners for an acceptable estimate. Barton County reserves the right to pursue other estimates.
 - c) Certification of the selected estimate by a professional engineer. All costs to secure the estimates will be funded by the WECS owner.
- 8) A provision that the terms of the decommissioning plan shall be binding upon the WECS owner or operator and any of their successors, assigns, or heirs.
- 9) Confirmation by affidavit that the obligation to decommission the WECS facilities are included in the lease agreement for every parcel included in the CLUP application. A list of all landowners should be kept current, and affidavits shall be secured from future WECS owners and landowners stating their financial understanding.
- 10) A provision that allows the County to have the legal right to transfer applicable WECS material to salvage firms.
- 11) Identification of /and procedures for the County to access the financial assurances.
- 12) A provision that the County shall have access to the site, pursuant to reasonable notice to affect or complete decommissioning. A portion of the escrow account will be required to be held for one year past the decommissioning to settle any potential disputes.

ii) **Provisions triggering the decommissioning of any portion of the WECS project due to abandonment:**

- 1) Inactive construction for twelve (12) consecutive months or if there is a delay in obtaining a purchase power agreement for twelve (12) consecutive months, unless a signed document is provided by the Power Purchaser claiming responsibility for the delay.
- 2) If no electricity is generated by an individual turbine or the entire project for twelve (12) consecutive months after electricity is initially generated, unless proof is provided, that repairs are in progress with completion of full repairs within six (6) months. The Barton County Zoning Administrator or his/her designee shall have access to records in order to determine the electric generation of every turbine.
- 3) If the owner / operator of the WECS dissolves or chooses to abandon the project.
- 4) The owner / operator of the WECS allows the WECS to enter a state of disrepair, in threat of collapsing or creating any other health or safety issue.

iii) **Provisions for the removal of structures, debris, and cabling both above and below the soil surface:**

- 1) Items required to be removed include but are not limited to: turbines; transformers; foundation pads; electrical collection systems and transporters; underground cables; fencing; access roads and culverts. Concrete foundations supporting the WECS Towers are to be removed following Section 8-403. 19)(iii)(2) listed below. Should a landowner want access roads or culverts to their property to remain, they must sign an agreement with the WECS owner and/or operator and provide a copy to the Barton County Engineer for approval.
- 2) The concrete foundation of each WECS tower shall be removed.

iv) **Provisions for the restoration of soil and vegetation:**

- 1) All affected areas shall be inspected, thoroughly cleaned, and all construction related debris shall be removed.
- 2) Items required to be restored include but are not limited to: windbreaks; waterways; site grading; drainage tile systems; and topsoil to former productive levels.
 - a) In work areas involving decommission from expansion of turbine crane

Wind Energy Conversion Systems

pads, widening access roads, or any other work areas, the topsoil must be first removed, identified, and stored separate from other excavated material for later replacement as applicable.

- b) The below-surface excavation area shall be filled with clean sub-grade material of similar quality to that in the immediate surrounding area.
- c) All sub-grade material will be compacted to a density similar to surrounding grade material.
- d) All unexcavated areas compacted by equipment used in decommissioning shall be de-compacted in a manner that adequately restores the topsoil and sub-grade material to the proper density consistent and comparable with the surrounding area.
- e) Where possible, the topsoil shall be replaced to its original depth and surface contours.
- f) Any topsoil deficiency and trench settling shall be mitigated with imported topsoil that is consistent with the quality of the affected area.

- 3) Disturbed areas shall be reseeded to promote re-vegetation of the area to a condition reasonably similar to the original condition. A reasonable amount of wear and tear are acceptable.
- 4) Restoration measurements shall include; leveling, terracing, mulching, and other necessary steps to prevent soil erosion; to ensure establishment of suitable grasses and forbs; and to control noxious weeds and pests.
- 5) Items required to be repaired after decommissioning include but are not limited to: roads, bridges, culverts, box culverts, road drainage ditches and low water crossings.
- 6) A professional engineer shall be present to ensure drainage tiles, waterways, culverts, etc. are repaired as work progresses.
- 7) A soil erosion control plan shall be approved by the Barton County Engineer and the Barton County Soil and Water Conservation District.
- 8) All stormwater management, floodplain, and other surface water regulations shall be followed.

v) **Estimating the Costs of Decommissioning:**

- 1) Costs shall include but not be limited to engineering fees, legal fees, accounting fees, insurance costs, decommissioning, and site restoration.

- 2) When factoring the WECS salvage value into decommissioning costs, the authorized salvage value may be deducted from decommissioning costs if the following standards are met:
 - a) The net salvage value shall be based on the average salvage price of the past five (5) consecutive years, this includes any devaluation costs.
 - b) The maximum allowable credit for the salvage value of any WECS shall be no more than the estimated decommissioning costs of removal of the above ground portions of that individual WECS or up to seventy percent (70%) of the total estimated decommissioning costs, whichever is greater.
- 3) Adjustments to the financial assurance amount that reflect changes in the decommissioning costs and salvage values shall be resubmitted every five (5) years and shall be adjusted for inflation and other factors. The escrow account shall be adjusted accordingly within six (6) months of receiving the updated information as determined by a professional engineer. Failure to provide financial assurance as outlined herein shall be considered a cessation of operation.
- 4) When determining salvage values – demolition costs, transportation costs, and road permits shall be a consideration.
- 5) If salvage value items are removed prior to decommissioning, then the escrow account must be credited.

vi) **Financial Assurance:**

- 1) The County shall have access to the decommissioning fund secured by the escrow account in a bank of the County's choosing if:
 - a) The WECS operator fails to address a health and safety issue in a timely manner; or
 - b) The WECS operator fails to decommission the abandoned turbine(s) or the entire WECS project in accordance with the decommissioning and site reclamation plan.
- 2) The owner / operator shall grant perfected security in the escrow account by use of a control agreement establishing the County as an owner of record pursuant to the Secured Transit Article of the Kansas Uniform Commercial Code. The escrow agent shall release the decommissioning funds when the WECS owner or operator has demonstrated, and the County concurs that decommissioning has been satisfactorily completed, or upon written approval

Wind Energy Conversion Systems

of the County to implement the decommissioning plan. Ten percent of the fund shall be retained one (1) year past the decommissioning date to settle any outstanding concerns.

- 3) Any interest accrued on the escrow account that is over and above the total value as determined by a professional engineer shall go to the WECS owner.
- 4) The owner / operator shall identify procedures for the County to assess the financial assurances, particularly if it is determined that there is a health and / or safety issue with the WECS and the principal company fails to adequately respond as determined by the County Commissioners.
- 5) The County shall not be liable for any claims against the WECS applicant, owner, or operator.
- 6) The owner / operator shall agree that the sale, assignment in fact or at law, or other transfer of the owner / operator's financial interest in the WECS shall in no way affect or change the owner / operator's obligation to continue to comply with the terms, covenants, and obligations of this agreement and agrees to assume all reclamation liability and responsibility.
- 7) The County and its authorized representatives have the right of entry onto the WECS premises for the purpose of inspecting the methods of reclamation or for performing actual reclamation if necessary.

vii) **Remedies:**

- 1) The owner / operator's failure to materially comply with any of the above provisions shall constitute a default under this regulation.
- 2) Prior to implementation of the existing County procedures for the resolution of such default(s), the appropriate County body shall first provide written notice to the owner and operator, setting forth the alleged default(s).
- 3) If the County determines at its discretion, that the parties cannot resolve the alleged default(s) within the good faith negotiation period, the existing county ordinance provisions addressing the resolution of such default(s) shall govern.

18) **Future Operators:**

Future operators, successors, assignees, or heirs shall agree in writing to accept and to conform to all provision of the CLUP. Prior notice to the County of the intent to sell or transfer ownership shall be done in ninety (90) days. Such agreement shall be filed with and accepted by the County before the transfer to a new operator, successor, assignees, or

heirs shall be affective.

19) **Airspace Overlay or Airstrip:**

If a system is proposed to be placed within an Airspace Overlay (ASO) District or within five (5) miles of any airstrip, the owner / operator shall provide acknowledgement of location approval or acceptance from the Federal Aviation Administration with the CLUP Application.

20) **Building Permits and Plan Review:**

The owner / operator shall contract with a special inspector and/or Plan Reviewer, approved by the Barton County Zoning Administrator, for construction plan review and all required construction inspections, at the owner / operator's expense.

21) **Reviews:**

The WECS shall be reviewed for compliance with the standards of the CLUP at the time of application, one (1) year after approval and every five (5) years thereafter through the life of the CLUP. These reviews shall be conducted by a third-party firm, selected and financed by the owner / operator and approved by the Barton County Zoning Administrator.

8-406. **Application and Required Documents.**

An application must accompany all proposed Commercial Scale WECS.

No Commercial Scale WECS shall be constructed, erected, installed, or located within Barton County unless all applicable requirements found in Section 8-106 have been met and a Building Permit has been issued.

a. **Additional Public Notice.**

Prior to submitting an application for a Conditional Land Use Permit for a Commercial Scale WECS, the owner / operator shall mail notice of the potential development application to property owners within a one (1) mile radius of the property included in the application. (This is in addition to the Barton County Zoning Administrator Office's mailed notification of the Barton County Planning Commission public hearing to property owners within 1000-feet of the subject development).

- 1) The owner / operator shall submit a certificate of mailing provided to the Barton County Zoning Administrator for this notice, a sample letter, and a list of notified property owners at the time of the application.

- i) A certified list of property owners within one (1) mile of the subject

development within the CLUP application shall be obtained from the Barton County Cartographer's Office, within 30 days of the mailing date.

- ii) The notice shall be sent by mail and shall include a brief description of the project, proposed construction date, date the application will be submitted to the Barton County Zoning Administrator's Office, the person with contact information (phone, email, address) designated by the owner / operator to respond to questions concerning the proposed application and include the following statement:

This letter is being sent to the owners of nearby property for the purpose of informing the property owners and other interested parties about the proposed Commercial Scale Wind Energy Conversion System (WECS) project described further in this letter. This letter does not grant the recipient and / or the property owner any additional legal rights to challenge the proposed development, instead, it is being provided solely to advise property owner(s) of the pending development. For Further information, contact the owner / operator's designated representative (insert contact information here) or the Barton County Zoning Administrator's Office at 620-796-4300.

- iii) The owner / operator is responsible for mailing notices to all property owners listed on the certified property owner list prior to the submittal of the CLUP application.
- iv) When required notices have been properly addressed and deposited in the mail, failure of a party to receive such notice will not be grounds to invalidate any action taken by the Barton County Planning Commission or the Board of Barton County Commissioners.

b. Existing Conditions.

A physical and digital site plan of existing conditions on all properties included in the Project Area showing the following (digital site plan must be formatted to toggle each layer off and on):

- 1) Existing property lines and property lines extending one hundred (100) feet from the exterior boundaries of the Project Area, including the names of the adjacent property owners and current use of those properties, as determined by site inspection or from the Barton County Appraiser's Office. (This information is available from the Barton County website under Property Search / Appraiser Portal.)
- 2) All recorded leases, and easements included in the Project Area, with type and

Wind Energy Conversion Systems

recording information, and the location and width of all public road rights-of-way;

- 3) Existing points of ingress and egress to the Project Area;
- 4) Location and size of any known wells (oil, water, geothermal, etc.);
- 5) Existing buildings and any paved or gravel surfaces, with dimensions;
- 6) Contour lines showing the existing topography of the Project Area at one foot intervals. The source of the topography must be stated. If the Project Area contains any Federal Emergency Management Agency (FEMA) mapped floodplain, the topography must be tied to the Flood Insurance Rate Map (FIRM) datum;
- 7) Boundaries and designations of any Special Flood Hazard Areas identified on the FIRM of Barton County, Kansas;
- 8) Existing vegetation (list type and percentage of coverage; i.e., pasture, grassland, farmland, wooded areas, etc.);
- 9) Existing waterways, rivers, wetlands, channels, ditches, or streams, existing ponds and lakes, and existing culverts;
- 10) Soil map showing location of soils classified as Class 1 and 2 soils, prime farmland, and farmland of statewide importance as identified in the Natural Resource Conservation Service (NRCS) soil survey;
- 11) Map of residential uses and structures within 1,000-feet of the WECS boundary;
- 12) Presence of any critical habitat for threatened or endangered species as determined by Kansas Department of Wildlife and Parks; and
- 13) The location of any underground pipelines and all utility easements including, but not limited to railroad and drainage easements.

c. **Proposed Conditions.**

A physical and digital site plan of proposed conditions showing the following:

- 1) Number, location and spacing of towers and all appurtenant structures, including existing and proposed Met Towers;
- 2) Name and address of owner / operator;

Wind Energy Conversion Systems

- 3) Location and width of access drives;
- 4) Planned location of underground and overhead electric lines connecting the WECS to any building, substation, or other electric load;
- 5) Proposed phasing schedule;
- 6) New electrical equipment other than at an existing building or substation that is the connection point for the WECS;
- 7) Planned wildlife corridors;
- 8) Environmentally sensitive lands to be protected;
- 9) Clearly delineated limits of proposed land disturbance or vegetation removal for all phases of construction and operation;
- 10) Location and height of any proposed lighting;
- 11) Locations with descriptions and sizes of planned temporary construction laydown yards;
- 12) Wiring diagram for the Project Area;
- 13) Approximate limits of disturbance for all temporary and permanent project components associated with the Project Area; and
- 14) Utility easements including, but not limited to, easements for transmission and interconnection.

d. Additional Materials.

The following shall be submitted with the application:

- 1) Public outreach required for WECS. Information regarding public outreach, such as how the owner / operator informed nearby property owners and interested stakeholders in the community, what meetings were held, and / or what information was provided;
- 2) Manufacturer's specification and recommended installation methods for all major equipment, including the towers, wind turbines, mounting systems and foundations;
- 3) Assessment of construction impacts such as, but not limited to, noise, vibration, lights, waste management, water supply, etc. and mitigation measures. Mitigation measures could include, but are not limited to: limited

Wind Energy Conversion Systems

construction hours, reduced scope of work at one time, alternate construction methods, etc.;

- 4) A preliminary equipment specification sheet that documents the proposed components, inverters, and associated electrical equipment being installed;
- 5) A grading/vegetation removal plan which includes all proposed changes to the topography and vegetation on the site (clearing, grading, topographic changes, tree removal, etc.;
- 6) A stormwater management plan with supporting calculations, documenting how increased runoff will be conveyed throughout the Project Area. The calculations must include the design of open channels and culverts on the Project Area. Based on recommendations from the Barton County Engineer, storage, and controlled release at points of discharge from the Project Area may be required. If required, the stormwater management plan must be implemented on the final site plan prior to approval;
 - a) Preliminary stormwater management plans may be provided with the original application, as required by the Barton County Engineer. Engineered or detailed plans must be submitted for the Barton County Engineer's review and evaluation prior to the Board of Barton County Commission's final action on the CLUP application.
 - * Staff may require more detailed information when needed to make informed decisions on the use.
 - * changes required by the stormwater plan, such as detention, shall be shown on the final plans for the Board of Barton County Commission's consideration.
- 7) A copy of any Interconnection Facilities Studies;
- 8) A copy of the interconnection agreement with the electric utility shall be provided;
- 9) A copy of the KDHE approved Stormwater Pollution Prevention Plan (SWPPP) for the site; and
- 10) An operation and maintenance plan which includes measures for maintaining access drives to provide access for emergency vehicles, as well as general procedures for operation and maintenance of the installation;
- 11) Traffic and Road Maintenance Plan:

A traffic and haul route plan based on the recommendations of the Barton

County Engineer and Barton County Township boards affected by the proposed project. The plan shall include, but is not limited to:

- a) A general Project Schedule.
- b) A traffic study estimating the volume and type of traffic generated by the project, both during construction and during normal operations. The study must identify proposed haul routes for construction traffic, trucks, and oversize or overweight loads.
- c) Based on the traffic study and the Barton County Engineer's recommendations, the following items shall be required:
 - * Notes on the plan designating haul routes from the Project Area to a paved county or state highway;
 - * Road maintenance agreement to be executed with Barton County or Barton County Township(s), addressing compensation for road maintenance or dust control on public roadways; and
 - * Public improvement agreements to be executed with Barton County or Barton County Township(s), addressing compensation for necessary road, bridge, or culvert improvements on public roadways.

12) Vegetation Management Plan:

A vegetation management plan is needed, detailing all proposed changes to the vegetation of the Project Area, and outlining all proposed uses, current or future.

- 1) The plan shall show where existing vegetation is to be removed and detail any new vegetation that will be placed and the location(s).
- 2) The plan shall include the installation, establishment and maintenance of buffering or screening landscaping as required.
- 3) The plan shall include the installation, establishment and maintenance of ground cover and other vegetation to minimize erosion, maintain soil health, and accommodate the proposed use.

13) Emergency Services, Fire, and Safety Plan:

A plan including all means of managing an Extraordinary Event at the WECS Project Area shall include, but will not be limited to, the following:

Wind Energy Conversion Systems

- 1) The project summary, electronic schematics, site plans, and emergency ingress / egress plans, with the location of the access drives and the width and load rating of the access drives.
 - 2) Emergency contact information, which shall also be posted on the Project Area.
 - 3) Description of how the fire safety system and its associated controls will function and be maintained in proper working order.
 - 4) Fire protection and suppression systems.
 - 5) Site control measures during and after any emergency. All means of managing an emergency, including shutting down the WECS, shall be noted and clearly marked.
 - 6) Procedures for inspection and testing of associated alarms, interlocks, and controls shall be noted on the plan.
 - 7) Material Safety Data Sheet (MSDS) unless the WECS meets the reporting thresholds of Emergency Planning and Community Right to Know (EPCRA) Act in which case the owner / operator shall provide and submit a Tier II report if required by the EPA. The EPA requires Tier II reports on facilities that store hazardous chemicals above certain threshold quantities.
 - 8) Electrical shock hazards and possible contact with hazardous substances or toxic fumes shall be identified.
 - 9) The owner / operator shall update the Emergency Services and Fire Safety Plan annually in collaboration with Barton County Emergency Management and provide new copies to the WECS owner / operator, the local fire district, emergency response agencies, Barton County Emergency Management, and the Barton County Zoning Administrator.
 - 10) Any specialty response equipment required to adequately manage Extraordinary Events will be provided, updated, and / or replaced by the owner / operator, as needed and at the owner / operator's expense.
 - 11) Annual Emergency and Extraordinary Event response training will be provided for all emergency response stakeholders on the plan, Project Area, equipment, and processes required to assure their safety and effective management during an event.
14. Abandonment, Decommissioning, and Reclamation Plan:

Wind Energy Conversion Systems

A decommissioning and reclamation plan shall be required to ensure that WECS components are safely removed after their useful life. Decommissioning of wind turbines must occur in the event that they do not produce electricity, have no demonstrated plan to restore to operating condition, and before the end of the lifespan of the CLUP.

- 1) To verify production level, a report of power generated by the WECS shall be submitted to the Barton County Zoning Administrator annually.

15. Bond Requirements:

The owner / operator shall post a bond with the Barton County Clerk, establish an escrow account, or provide such other financial security deemed acceptable by Barton County, in an amount equal to the estimated decommissioning costs, to ensure proper decommission and reclamation of the site.

16. Property Value Agreement:

The Zoning Regulations of Barton County, Kansas stipulate that a purpose of the regulations is to protect property values. (See Article 1-101 I.) The County desires to alleviate concerns about the preservation of property values of property located in the 'Designated Area' of a WECS. Therefore, the County requires that a WECS owner / operator provide a PVA to all Non-Participating Landowners, who are the owner of record of property located in the Project Area of a WECS at the time the completed CLUP application is accepted by the Zoning Administrator. Acceptance of the PVA would be at the discretion of each qualified Non-Participating Landowner. The County would suggest that the PVA requirement includes all Non-Participating Property located within (2) miles from the perimeter of the WECS Project Area. The PVA shall be negotiated with the County Commissioners. At a minimum, the PVA should include but is not limited to the following:

- (1) Designated area
- (2) Eligibility
- (3) Qualified professional appraiser
- (4) Appraisal value to be determined as if WECS did not exist
- (5) Appraisal value process
- (6) Determination of asking price
- (7) Acceptable methods of sale
- (8) Terms for listing property
- (9) Number of days on market
- (10) Offers to purchase
- (11) Guarantor's consent to purchase
- (12) Sale without guarantor's consent
- (13) Termination of guarantor's obligations

(14) Assignment or transfer

17. Wind Zoning Map:

Commercial Scale WECS shall have special permitting requirements in Barton County with reference to the Cheyenne Bottoms Basin. Refer to the following for all proposed Commercial Scale WECS applications:

- (1) **Commercial Scale - No Build Zone:** From the intersection of US 281 HWY and NW 150 Road, then east to the intersection of NE 150 Road and NE 150 Avenue, then south to the intersection of SE 150 Avenue and East Barton County Road, then west to the intersection of US 156 HWY and SW 40 Avenue, then north to the point of origin. The NO Build Zone shall include all land within the boundaries described that are in the unincorporated jurisdiction of Barton County.
- (2) **Map “Wind Zoning Map” Boundaries for Commercial Scale WECS:** This map is attached hereto as labeled above and is one of three official Barton County Zoning Maps and shall be recognized as such.
- (3) Commercial Scale WECS will be conditionally permitted or not permitted based on the location of the proposed Commercial Scale WECS with respect to the “Wind Zoning Map,” Regulations set out in Article VIII – Wind Energy Conversion Systems, as well as the land use district as established in the table below:

DISTRICT	COMMERCIAL SCALE WECS
(A) Agricultural	Conditionally Permitted
(R) Residential	Not Permitted
(C) Commercial	Conditionally Permitted
(I) Industrial	Conditionally Permitted
(LMSC) Light Manufacturing Service Commercial	Conditionally Permitted
(UC) Unincorporated Community	Not Permitted
(PL) Planned Community	Not Permitted