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MEMORANDUM

**Marion County
Health Department**

TO: Marion County Planning Commission and Staff
FROM: Scott A. Michie, Bucher, Willis & Ratliff Corporation, Project Consultant
SUBJECT: Revised WECS Overlay District Recommendations
DATE: February 19, 2004 **Project #** 2003-154

**Marion County, Kansas
WECS Overlay District**

A common zoning tool used to govern development of special areas within a city, county or region is an *Overlay District*. The proposed *Wind Energy Conversion Systems (WECS) Overlay District* is proposed for Marion County to meet specific development demands. The "WECS Overlay District" procedures are similar to obtaining a Planned Development District designation. However, an Overlay District is intended only for sites that meet specific criteria. Overlay Districts are commonly used as tools to better assure appropriate site planning and development of places having either manmade or natural constraints or unique features; or where high-impact land uses—like WECS—are proposed.

The WECS Overlay District would lie along portions of the U.S. Highway 50 "corridor" best suited for such uses, based on manmade and natural constraints and infrastructure (which will be shown on the county's zoning map once the overlay is adopted). Developers of wind energy conversion sites must target their proposals within this designated geographical location and be subject to the WECS Overlay District requirements. When the Overlay District is approved, the underlying Zoning District classifications of land remain as before, however, with new "overlaid" requirements. An overlay designation generally requires more rigid design/development standards and procedures to promote and encourage development that is appropriate and compatible with the stated purposes, and to address "externalities" of the more intense proposed uses.

We have developed an Overlay District for Marion County that includes guidelines and procedures which will enable the county to command higher quality site design and more compatible land uses when reviewing and considering for approval future WECS. To implement the objectives identified in the 2002 Comprehensive Plan for Marion County, we recommend adopting the following Overlay District as part of the county's zoning regulations. Some details of the district requirements are taken from the Butler County, Kansas regulation drafts. We appreciate their assistance and that of the Marion County Zoning Administrator who has provided research for these regulations.

13/13/2014

MARION COUNTY, KANSAS WECS OVERLAY DISTRICT

Regulation of Wind Energy Conversion Systems (WECS) in Marion County

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Marion County, Kansas WECS Overlay District

A. Purpose and intent. The purpose of the Overlay District is to ensure a regulatory means of facilitating wind energy development by protecting the WECS developer's interest in unobstructed wind flow; and at the same time provide a regulatory response to the demands of neighbors and the general public whose interests may be detrimentally affected by wind turbine operation. The District regulations outline required submittals to the Marion County Planning Commission for a Wind Energy Conversion Systems (WECS) plan approval. A Development Plan is to be submitted with the application. These guidelines are written to:

- Assist the applicant and relevant authorities;
- Provide details of the WECS;
- Provide information so individuals may gain an understanding of the WECS;
- Provide a basis for public discussion and informed comment on the WECS;
- Identify significant environmental, social, and economic effects related to the WECS; and,
- Provide a background on which decision makers will consider the project.

These guidelines are not intended to restrict installation of small "home" WECS, as defined by the county.

B. Applicability: All development within the WECS Overlay District, as depicted on the county's Official Zoning District Map, shall comply with the standards and procedures of this Section; except that, new construction of certain WECS may be allowed by right upon a finding by the Zoning Administrator that the WECS is a small "home" WECS.

C. Home WECS: Home WECS shall be allowed by right upon a finding by the Zoning Administrator that the proposed WECS meets the following requirements:

- (1) A single WECS erected on an owner-occupied parcel of land for private use;
- (2) No taller than 200 feet in height;
- (3) Setback from the nearest property line no less than the height of the turbine tower, plus 50 feet; and
- (4) Located no closer than 1,000 feet from the nearest residential dwelling.

D. Circumstances Requiring Application of the WECS Overlay District: The following circumstances require application of Overlay District standards and procedures within the designated WECS Overlay District:

- (1) An application for change in zoning or conditional use permit of a parcel, for a WECS; or
- (2) A subdivision or re-subdivision of land, or a lot split for a WECS; or
- (3) An application for new construction of a WECS-related building for primary use; or

(4) Any land use change where over 50% of a WECS structure or building, in value or bulk, is being altered.

E. Governing Ordinance: Site specific land use and development restrictions shall be developed and adopted in conjunction with the approval of any site plan within the WECS Overlay District. The site-specific requirements or governing resolution shall be titled "Attachment A" and shall be attached to the resolution authorizing the establishment of the WECS Overlay and/or rezoning. The Resolution number officially designating the site or area with the WECS Overlay shall be noted on the county's Official Zoning Map. As such, any additional uses shall conform to the specific conditions established for the WECS Overlay District including, but not limited to the following:

- (1) Accessory building appearance.
- (2) Minimum and maximum square footage per use.
- (3) Setback requirements.
- (4) Safety conditions.
- (5) Off-street Parking (number, location).

F. Power Purchase Agreement (PPA) The Conditional Use Permit does not authorize construction of the project until the Applicant has obtained a Power Purchase Agreement (PPA) for the electricity to be generated by the WECS. The Applicant shall advise the Zoning Administrator when it obtains a power purchase agreement and shall provide such documentation confirming said agreement.

The PPA must be obtained within one year of the date of publication of the Resolution approving CUP. The one-year period may receive up to a 6-month extension upon written request by the Applicant, and approval of the Planning Commission and the Board of County Commissioners. In the event the Applicant does not obtain a PPA within the 12 to 18 month time span, the CUP shall be null and void. Building permits shall be issued only after the Zoning Administrator receives documentation confirming said PPA, and all conditions pertaining to WECS have been satisfied.

G. Plan Submittals. The Development Plan shall be written so that sources of information are referenced and current. Close consultation with the Zoning Administrator during preparation of the Development Plan is highly recommended. These requirements specify the maps, information surveys and studies that must be submitted as part of the CUP application. Marion County may adjust the standards for future projects based on the results of monitoring avian collisions; the success or failure of remedial actions required in the decommissioning process; and with the changing technology in wind generated electricity.

The WECS Development Plan shall address the following key WECS issues:

▪ Land Use	• Visual Impact
• Noise	• Bird migration / strikes

• Endangered Species	• Wildlife Habitat
• Soil Erosion	• Water Quality
• Public Health & Safety	• Infrastructure
• Cumulative Impact	• Removal / Reclamation
• Electric – Magnetic fields associated with transmission lines.	• Bond Agreement
• Aviation / FAA	• Reception Interference
• Cultural Heritage	• Native Vegetation / Weeds
• Company experience, reputation and financial ability	

H. Conditions Required For Approval Applications for WECS shall include, but not be limited to:

- (1) Strict conformance to all performance standards as detailed in the Marion County Zoning Regulations.
- (2) No turbines shall be located closer than 500 feet from public roads or the total height of the turbine plus 50 feet, whichever is greater. No turbines shall be located closer than 500 feet from property lines of any property not included in the CUP, or the total height of the turbine plus 50 feet, whichever is greater. No turbine shall be located closer than 1000 feet from a residential structure. Turbines shall be located no closer than the total height of the turbine plus 50 feet from a common agricultural / residential accessory structure.
- (3) Communication lines and power collection lines are to be installed underground in the area covered by the CUP. Said lines are to be located under or at the edge of turbine access roads. Aboveground transmission lines may be used only in public rights-of-way or easements.
- (4) Applicant shall apply for building permit prior to the construction of each turbine.
- (5) A Power Purchase Agreement (PPA), and a surety bond for de-construction purposes must be approved and accepted before any building permits are issued for construction to begin.
- (6) Transportation routes used for construction shall be coordinated with the County Engineer. A road agreement must be approved before any building permits are issued for construction to begin.
- (7) Applicant shall be held liable for any damage to county / township roads or rights-of-way resulting from tower construction, deconstruction, and/or maintenance activity.
- (8) Lowest point of the rotor blades shall be at least 100 feet above ground level at the base of the tower.

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- (9) If lubricants and/or hazardous materials are needed to be located on the premises in connection with the WECS, said materials shall be kept and transported in accordance with all state and federal regulations.
- (10) There shall be no lights on the towers other than those required by the Federal Aviation Administration (FAA). This restriction shall not apply to infrared heating devices used to protect the wind monitoring equipment.
- (11) At the end of the projects useful life, equipment shall be removed from the site and the foundations shall be removed to a depth of four (4) feet below the ground surface. Access roads shall be removed to the landowner's satisfaction, and the ground shall be reseeded in native grasses. The requirement to remove access roads shall not apply to roads in existence before the WECS application was filed. The landowner may choose to have access roads left intact.
- (12) Structures for wind turbines shall be self-supporting tubular towers painted a neutral color such as a white or pale gray. No lattice structure shall be used. No logos or advertisements are allowed on these structures. Each turbine shall be marked with a visible identification number located no higher than fifteen (15) feet above ground level.
- (13) Applicant shall take reasonable measures to correct deficiencies in radio and television reception in or near the project area shown to be caused by the project. WECS shall operate in conformance with the Federal Communications Commission (FCC) regulations.
- (14) Applicant shall take reasonable measures such as planting trees, installing awnings, etc. to mitigate specific adverse visual impacts such as reflections, shadow flicker, and blade glint affecting residences within or immediately adjacent to the project area.
- (15) An owner, lessee, or occupant of agricultural land is not liable for property damage caused by or resulting from prescribed burning conducted on the land owned by, leased by, or occupied by the person if the prescribed burning is conducted under the procedures established by the Kansas State University Research and Extension Office – Marion County.
- (16) A certified structural engineer or certified structural engineering firm shall conduct all necessary inspections on each turbine. Inspections shall include, but not be limited to; foundation, structural assembly, mechanical, and electrical. Documentation regarding each approved inspection shall be submitted to the Zoning Administrator before advancing to the next step of construction.
- (17) Said engineer, or engineering firm, shall be selected by the Board of County Commissioners. All expenses shall be the responsibility of the Applicant or holder of the CUP. Marion County, its officers, agents, and employees shall be held harmless from any and all claims, costs, liabilities, damages, or expenses, including costs of suits and fees and expenses for legal services on account of any damages claimed by any third party, including such claims by agents or employees of said third party, arising from any approval or non-approval of any inspection. All inspections shall be conducted in accordance with Marion County inspection policy as stated in the officially adopted building Codes.
- (18) If the CUP is to be transferred from one party to a different party, said transfer must first be approved by the Board of County Commissioners. First party shall inform the second party of the surety bond and all other requirements of the CUP.

The second party, or new holder of CUP shall meet the surety bond requirements and all other requirements of the CUP. A transfer fee of \$100 per turbine shall be paid to the County.

I. Use Limitations.

- (1) All sites containing riparian watershed areas, native prairie grasses, or portions of the agricultural fields as designated by the county, shall comply with the following requirements:
 - i. Portions of the native prairie grass or agricultural fields on any site shall be preserved as part of the site-designed open space, or shall be substituted for open space as approved by the County. Applicants are encouraged to protect open space through acquisition of land or development rights, or similar method.
 - ii. No clearing or grading shall be permitted within 125' from the centerline of any drainage area, unless otherwise permitted by the County.
 - iii. A conservation easement or other legal instrument that protects the natural character of the land in perpetuity is required for all applicable sites as approved by the County.
 - iv. Any development that is determined by the county to fall within the limits of the historical Chisholm Trail, Oregon Trail or related historic natural or manmade feature shall comply with the following requirements:
 - a. Any trees that are determined to endanger the preservation of trail ruts or diminish the visibility of a trail shall be removed under the direction of the county or the county's appointed designee.
 - b. Interpretive signage as approved by the county shall be provided, if applicable.
- (2) An Overview of the existing environment shall include information regarding:
 - i. Flora – vegetation species, threatened species (officially listed), critical habitat and habitat conditions for such species.
 - ii. Fauna – species, habitat assessment, threatened species (officially listed), migratory species, critical habitat and habitat conditions for such species.
 - iii. Geoconservation – sites of geoconservation significance listed on the state/national database. All of Marion County is located in the Flint Hills.
 - iv. Flood zones.

- (3) Site Clearance. Applicant shall disturb or clear the site only to the extent necessary to assure suitable access for construction, safe operation, and maintenance of the WECS. Applicant shall minimize the removal of trees and shall not remove groves of trees or hedgerows (shelter belts) without approval of the affected landowner. Applicant shall separate and protect topsoil from subsoil. On cultivated land, Applicant shall minimize compaction of the land during all phases of the WECS life. Compaction shall be confined to as small an area as practical. During site clearance and construction, silt fences and other temporary erosion controls shall be installed and left in place until new native vegetation covers the bare ground around the turbines.
- (4) Roads
 - i. Public Roads
 - a. Applicant shall identify all county and township roads that will be used for the WECS and shall notify the governing body having jurisdiction over the roads (County Engineering Department) to determine if said body needs to inspect the roads prior to their use. Where practical, existing roadways shall be used for all activities associated with the WECS.
 - b. Applicant and governing body having jurisdiction over said roads shall enter into a road agreement for maintenance and repair of roads subject to the extra wear and tear due to transportation of equipment and turbine components. Applicant shall be held liable for any damage to county / township roads or rights-of-way resulting from tower construction, deconstruction, and/or maintenance activity. Applicant shall not be held responsible to maintain or repair a road to a condition better than what existed before Applicant began using it for WECS purposes.
 - ii. Turbine Access Roads
 - a. Applicant shall construct the smallest number of turbine access roads it can. Access roads shall be low profile roads so farming equipment can cross them. Where an access road is to cross a stream or drainage way, it shall be designed and constructed so runoff from the upper portions of the watershed can readily flow to the lower portions of the watershed. Where an access road is to cross a stream or drainage way, Applicant must follow FEMA regulations pertaining to building a structure in a floodplain zone.
- (5) Soil Erosion, Sediment Control, & Storm Water Runoff. Applicant shall develop a *Soil Erosion, Sediment Control, & Storm Water Runoff Plan*. The Plan shall address what types of erosion control measures will be used during each phase of the project. It shall identify plans for:
 - i. Grading
 - ii. Construction and drainage of access roads and turbine pads
 - iii. Necessary soil information
 - iv. Design features to maintain down-stream water quality
 - v. Re-vegetation to ensure slope stability

- vi. Restoring the site after temporary project activities.

The Soil Erosion, Sediment Control, & Storm Water Runoff Plan shall also include practices regarding:

- Disposal or storage of excavated materials
 - Protecting exposed soil
 - Stabilizing restored material and removal of silt fences or barriers when the area is stabilized
 - Maintenance of erosion controls throughout the life of the project
- (6) Cleanup. Applicant shall remove all waste and scrap that is the product of construction, operation, restoration, and maintenance from the site and properly dispose of it upon completion of each task. Bottles, paper, and other litter deposited by site personnel shall be removed on a daily basis.
 - (7) Fire Safety. Applicant shall identify the potential fire risk associated with the project, including both prescribed burning and non-prescribed burning (natural or accidental). This shall include fire within the site, escape from the site, and the effects of fire originating from outside the site. Also address high angle rescue.

It is important to be aware of the fact that PRESCRIBED BURNING, or range burning is a common practice in this area. Mitigation plans are to show how the towers and equipment are protected from fire within the site and from fire originating from outside the site. Best source of information is the Marion County Extension. PRESCRIBED BURNING is defined as the controlled application of fire to naturally occurring or naturalized vegetative fuels under specified environmental (weather) conditions in accordance with a written prescription that:

- i. Is designed to confine the fire to a predetermined area and to accomplish planned land management objectives; and,
 - ii. Conforms to the standards established by the Kansas State University Research and Extension Office.
- (8) Lighting and Utility Standards. No light source greater than (1) one foot-candle shall be directed onto any public right-of-way, directed so as to cause glare onto any vehicle roadway, or cause light trespass onto any residentially used or zoned property. Security or safety lighting shall also be designed to avoid excess light trespass and glare. Lighting sources of all kinds shall be adequately shielded and positioned to avoid glare or direct visibility of the light source from adjoining property.
 - (9) Noise. The WECS shall not exceed 55 decibels at all times measured at the property line, or other noise standards that may be promulgated by Marion County, whichever is most restrictive. Turbines shall be moved, or modified, or removed (and decommissioned) from service if necessary to comply with this condition.

- J. General Construction Document Requirements: Applicant shall provide the following construction documents:

- (1) General -General description of major components and onsite facilities. Wind turbine specifications, transmission line and accessory facilities such as control rooms, transformers, substations, maintenance facilities, underground infrastructure, and interior access roads. The number, location, capacity, and dimensions of the turbines shall also be included.
- (2) Construction – (On-site) Prior to the start of, and continuously throughout construction and site restoration, applicant shall designate a field representative responsible for overseeing compliance with the conditions of the CUP. Said representative shall be accessible by telephone during normal business hours. Address, phone number and emergency phone number shall be provided to the Health Department and 911 Emergency services and shall be available to residents, officials, and other interested persons. Applicant is required to notify Health Department and 911 Emergency services should they change their designated representative.
 - i. A description and general schedule of major construction activities for the turbines, transmission lines, and common accessory structures related to WECS.
 - ii. An outline of any proposed site preparation involving removal of vegetation, and restoration of the site due to construction.
 - iii. The volume and designated route for traffic generated during the construction phase, including oversized and heavy equipment.
 - iv. Applicant shall inform all employees, contractors and others involved in the construction of the WECS of the terms and conditions of the CUP.
 - v. If environmental conditions not previously identified are discovered during construction, the applicant shall have the right to move or relocate a turbine site, only if the discovery would, by law, prevent such use.
- (3) Construction – (Off-site) Any new infrastructure or off site accessory structures required for the project to progress shall be described, including the following:
 - i. Requirements for new transportation infrastructure and/or upgraded, realigned, or new road.
 - ii. Changes to electrical sub-stations.
 - iii. Changes to existing power transmission systems, including any upgrades to existing transmission lines.
 - iv. Requirements for the realignment of other utilities affected by the project.
- (4) Operation & Maintenance
 - i. Operation and maintenance requirements (including frequency of maintenance activities) for the turbines and transmission lines.
 - ii. Width of transmission line easements required, and, any restrictions necessary on land use, development, and access within said easement.

K. Electromagnetic Interference. Applicant shall not operate the WECS and its associated facilities so as to cause microwave, television, radio, telecommunications or navigation interference contrary to Federal Communications Commission (FCC) regulations or other

law. In the event the WECS and its associated facilities or its operations cause such interference, Applicant shall take timely measures necessary to correct the problem.