

## ARTICLE 27 WIND ENERGY CONVERSION SYSTEMS (WECS) OVERLAY DISTRICT REGULATIONS

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Blue is highlight of current language

Red is suggested language

Red in brackets is commentary

### Sections:

27-101 Purpose and Intent

27-102 Applicability

27-103 Overlay District Established

27-104 Circumstances Requiring Application of the WECS Overlay District

27-105 Additional Required Topics to be Included in Submittals

27-106 Special Regulations Applicable for Conditional Use Permit for WECS

27-107 General Construction Document Requirements

**27-101 Purpose and Intent:** The purpose of the Overlay District is to ensure a regulatory means of facilitating wind energy development of a commercial Wind Energy Conversion System within the unincorporated portion of Marion County by protecting the WECS developer's interest in unobstructed wind flow; and at the same time provide reasonable requirements for submittal of proposals for the establishment of a WECS to provide adequate information to the officials of Marion County charged with the responsibility to review said proposals.

**27-102 Applicability:** All WECS development within the WECS Overlay District, as described herein, shall comply with the standards and procedures of this Section and those required for a Conditional Use Permit as stated in Article 19 and Development Plan as stated in Article 12, understanding the "timeline" restrictions in Article 12 are not strictly applicable to a WECS project because of the overall time for the development and construction thereof. [I strongly object to his language. The purpose of having timeline restrictions is to assure the project is moved along expeditiously, and so that the public can provide input. If the process drags out indefinitely, the public cannot stay informed and cannot provide timely input. If Article 12 timelines do not apply, then applicable time lines should be provided in this Article 27.] Placement of noncommercial Wind Energy Conversion Systems, as defined in these Regulations, shall be subject to the procedures and requirements contained in these Regulations.

**27-103 Overlay District Established:** The WECS Overlay District shall apply to all of the unincorporated portion of Marion County, Kansas.

**27-104 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 a Conditional Use Permit for a WECS; or
2. An application for expansion of a WECS beyond the area previously approved.

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**27-105 Additional Required Topics to be Included in Submittals:** In addition to the requirements of Article 12, applications for a WECS project shall address specific issues related with the project that include, but are not limited to the following:

1. In addition to strict conformance to all performance standards and Development Plan requirements as detailed in the Marion County Zoning Regulations, the Development Plan shall address the following:
  - A. The “boundary” of the project shall be the properties included within the “leased lands” on which the WECS is proposed to be constructed. The specific siting of individual components of the WECS, including towers, supporting structures, and all other aspects which entail a complete WECS as recognized within the industry, are permitted to be moved and adjusted as necessary during construction without modifications to the Development Plan [I strongly object to his language. This basically says, “Never mind what was agreed to and specified in the Development Plan. You can do whatever you want when you get to field construction.” There are always normal construction tolerances. However, any significant deviation from the location of project features as shown on the Development Plan should not be allowed. These Wind Energy Companies typically are divided into Developers and Constructors/Operators. The Developers get the leases and permits, then sell the package to the Constructor/ Developers. I think it is imperative that the Constructors/Operators be strictly bound to what is agreed to and shown on the development Plan.] so long new lands are not added to the original “boundary” of the WECS.
  - B. All setback designations herein, when referenced as “total height” shall mean “Total Tip Height”, which is the total height of the wind turbine measured at the highest point of the blade system during its rotation, or with respect to any other structure including meteorological tower, its total height. All horizontal setbacks shall be measured from the center point of the turbine tower to the edge point from which the setback is required.
2. No turbines shall be located closer than 500 feet from public roads, measuring from the nearest edge of the right-of-way or public road easement, 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 1,320 feet from an existing non-participating residential structure. For a participating residential structure, the turbine shall be located no closer than the total height of the turbine plus 50 feet. Turbines locations for other buildings on “participating lands” shall be as determined by the landowner.

For the purposes of the above requirements, a “participating residential structure” means a residential structure on the same land under lease or contract with a wind company; and a “non-participating residential structure” means a residential structure on land not under lease or contract with a WECS Developer.

3. Communication lines and power collection lines are to be installed underground in the area covered by the CUP with use of directional boring, horizontal drilling, micro-tunneling, vibrating plowing, narrow trench ditching and other techniques in the construction of facilities. Such processes are intended to result in the least amount of disruption and damage as possible to the surface soil and natural features. Said lines are to be located under or at the edge of turbine access roads.

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- Aboveground transmission lines may be used only in public rights-of-way, easements or other legal documents dedicated for such purposes, or when conditions on-site are found to make installation of underground supporting lines impractical or infeasible, for example the presence of existing underground lines or pipelines that conflict with such type of construction.
4. Designation of the public roads to be used as transportation routes for construction and maintenance of the WECS; said roads to be included within the mandatory Road Maintenance Agreement specified in these Regulations.
  5. 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, the applicant must follow FEMA regulations pertaining to constructing a roadway structure in a floodplain zone.
  6. The lowest point of the rotor blades shall be at least 50 feet above ground level at the base of each tower.
  7. All lubricants and/or hazardous materials to be located on the premises in connection with the WECS facility shall be kept and transported in accordance with all state and federal regulations.
  8. No lights shall be installed on the towers unless required by the Federal Aviation Administration (FAA). If lighting is required, then only the **installation** of red lights shall be permitted. This restriction shall not apply to infrared heating devices used to protect the wind monitoring equipment. At no point shall white, strobe lights be permitted.
  9. 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.
  10. At the end of the Project's **useful life**, [What is "useful life." Is it economically viable useful life? Structural/mechanical useful life? Useful life of individual components or the entire permitted project? I think 'useful life' needs some definition. What we don't want, in my opinion, is a dozen towers out of service and in disrepair sitting out there for x-number of years while some of the towers are still producing. Or, the owner keeps one tower operating while all the others are basically abandoned as a way to avoid the cost of decommissioning. I'm concerned about a situation analogous to the oil industry where **diminimus non-economically viable production from an oil well can hold a lease.**] all WECS equipment shall be removed from the site and the foundation for the base of each tower shall be removed such that each location can be covered over with a minimum of 18 inches of topsoil and re-seeded with native grass. Any request greater than the minimum requirements shall be negotiated between the project manager and the landowner at the time of decommissioning. Access roads shall be removed to the landowner's satisfaction, and the ground shall be restored to a use compatible with surrounding use. 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.
  11. The WECS and its associated facilities shall not be operated so as to cause microwave, television,

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radio, telecommunications or navigation interference contrary to Federal Communications Commission (FCC) regulations or other law as to occupied residential structures existing as of the date of the CUP approval by Marion County. In the event the WECS and its associated facilities or its operations cause such interference, the applicant shall take timely measures reasonably necessary to correct the problem.

12. Reasonable measures shall be identified to mitigate specific adverse visual impacts such as reflections, shadow flicker, and blade glint affecting occupied residences existing as of the date of the CUP approval by Marion County, within or immediately adjacent to the project area such as planting trees, installing awnings, etc.
13. The 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 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. 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 is designed to confine the fire to a predetermined area and to accomplish planned land management objectives.

The applicant shall acknowledge that an owner, lessee, or occupant of any agricultural land is not liable for property damage caused by or resulting from prescribed burning their own land on the land owned by, leased by, or occupied by the WECS if the prescribed burning is conducted the procedures stated above.

14. If the WECS project area contains riparian watershed areas, native prairie grasses, **historically significant features**, or other sensitive areas designated by the county, the applicant shall identify the manner in which the WECS project shall comply with the following requirements:
  - A. The manner in which the riparian watershed areas, native prairie grass areas, or sensitive areas on any site shall be preserved, or shall be substituted for open space as approved by the County.
  - B. No clearing or grading shall be permitted within 125' from the centerline of any drainage area, unless otherwise permitted by the County.
  - C. Any development that is determined by the county to fall within the limits of the historical Chisholm Trail, Santa Fe Trail, or related historic natural or manmade feature shall comply with the following requirements:
    1. 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.
    2. Interpretive signage as approved by the County shall be provided, if applicable.

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3. Santa Fe National Historic Trail (SFNHT)
  - a. The Santa Fe Trail has been designated a National Historic Trail by the U.S. Congress. The National Trails Program is administered by the National Park Service (NPS). The NPS partners with a private non-profit organization, the Santa Fe Trail Association (SFTA), to further the goals of both organizations of preserving, protecting, and interpreting the history and heritage of the SFNHT. Historic Trail designation does not impose any property rights restrictions without the consent of the landowner.
  - b. Landowners, at their discretion, may enter into Historic Site Designation Agreements with the NPS or place their property in the Federal and State Registers of Historic Places. Several Marion County landowners have done so. Most any visible remnants of the SFNHT or features associated with the SFNHT are eligible for inclusion in the Federal and State Registers of Historic Places.
  - c. The County has the following informational resources available which define the location of the Santa Fe Trail. These information resources should be consulted by the WCES developer and its consultants as part of the WCES development :
    - (1) A Google Earth based kmz file delineating and describing the location of the SFNHT in Marion County, along with definition of related sites. It must be remembered that the actual width of the SFNHT may vary from a few feet to several hundred feet, and that the kmz file only approximates a center-line of the trail route (analogous to a line on a map which represents the location of a stream whose width may vary greatly).
    - (2) A County Plat Map based pdf file that approximates the location of the SFNHT and designates locations where the trail is still existent, either visually (naked eye or aerial photographs) or from LiDAR imagery.
    - (3) A booklet titled "Route of the Santa Fe Trail in Marion County August 2010" (pdf)
    - (4) A booklet titled "Lost Spring, Marion County, Kansas, A Historical Perspective." (pdf)
    - (5) A brochure titled "Marion County Local Tour." (pdf)
    - (6) Other SFNHT related informational resources are available from the NPS, Intermountain Regional Trail Office in Santa Fe, NM, or the SFTA in Larned, KS.
  - d. To the extent feasible, WECS's (including wind towers, above and below ground utilities, access roads, ancillary features both on-site and off-site), and related construction and operational activities) should be designed, constructed, and operated so as not to damage or destroy existing SFNHT cultural resources. The Development Plan shall clearly show the location of SFNHT cultural resources and delineate areas which are to be protected or are "off-limits" for construction activity.
  - e. The WCES Developer or its consultants shall consult with the SFTA, NPS,

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and the State Historical Preservation Officer in preparing the Development Plan.

15. An Overview of the existing environment issues shall be documented and filed to include information regarding:
  - A. Wildlife Habitat;
  - B. Bird Migration and the potential for bird strikes;
  - C. Flora – vegetation species, threatened species (officially listed), critical habitat and habitat conditions for such species;
  - D. Fauna – species, habitat assessment, threatened species (officially listed), migratory species, critical habitat and habitat conditions for such species;
  - E. Geoconservation – sites of geoconservation significance listed on the state/national database (All of Marion County is located in the Flint Hills);
  - F. Flood zones.
  
16. 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. Said plan shall identify plans for:
  - A. Grading;
  - B. Construction and drainage of access roads and turbine pads;
  - C. Necessary soil information;
  - D. Design features to maintain down-stream water quality;
  - E. Re-vegetation to ensure slope stability;
  - F. Restoring the site after temporary project activities.

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

  1. Disposal or storage of excavated materials;
  2. Protecting exposed soil;
  3. Stabilizing restored material and removal of silt fences or barriers when the area is stabilized;
  4. Maintenance of erosion controls throughout the life of the project.
  
17. Other Lighting and Utility Standards. No light source greater than (1) one foot-candle shall be

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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.

18. Noise. The audible noise created by the WECS shall not exceed 55 decibels at all times measured at the property line of any non-participating property within the boundary of the project. Turbines shall be moved, or modified, or removed (and decommissioned) from service if necessary to comply with this condition.

**27-106 Special Regulations Applicable for Conditional Use Permit for WECS:** Evidence of a user or consumer of the electric generating capacity of the WECS shall be submitted to the Zoning Administrator prior to turbine construction and the issuance of a construction permit. Developmental rights, and any other rights granted by the issuance of the Conditional Use Permit will continue under any extensions, reissuances, renewals or assignments of the original lease as long as the Zoning Administrator is provided with documentation that a lease for the project was continuously maintained in effect. Also, as noted elsewhere in this Article, the “timeline” restrictions in Article 12 are not strictly applicable to a WECS project because of the overall time for the development and construction thereof. [Please see my comment on this language in Section 27-102.]

**27-107 Requirements for Construction Permit:** The following requirements shall be met in order to obtain a construction permit from the County:

1. No construction permit application shall be accepted by the County until a road agreement has been approved by the County and other public entities having jurisdiction. The WECS owner and the County and any other public 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. The WECS owner shall be held liable for any damage to county or township roads or rights-of-way resulting from tower construction, deconstruction, and/or maintenance activity. The WECS owner shall not be held responsible to maintain or repair a road to a condition better than what existed before said owner began using the public road for WECS purposes.
2. A construction permit shall be required for the construction of each turbine within the approved WECS, accompanied by the payment of all fees associated therewith as established by the County. Construction shall be allowed to begin only after approval by the County following review of all submittals for the permit outlined herein. The County shall have a maximum of 20 working days to review all submitted materials in order to either approve the construction permit or notify the applicant of any deficiencies associated therewith.
3. Construction plans showing the general description of major components and onsite facilities of the WECS including, but not limited to, wind turbine specifications; transmission line and accessory facilities such as control rooms, transformers, substations, maintenance facilities; underground infrastructure; and interior access roads plans shall be provided with the application for the construction permit. This shall include the designation of the number, location, capacity, and dimensions of the turbines for the WECS project and shall include the following:
  - A. A description and general schedule of major construction activities for the turbines,

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- transmission lines, and common accessory structures related to WECS.
- B. An outline of any proposed site preparation involving removal of vegetation, and restoration of the site due to construction.
  - C. The volume and designated route for traffic generated during the construction phase, including oversized and heavy equipment.
  - D. The WECS owner shall inform all employees, contractors and others involved in the construction of the WECS project of the terms and conditions of the approved Conditional Use Permit.
  - E. Areas shall be designated that are off-limits from construction activities and shall have no surface disturbance.
4. Marion County retains the authority to retain the services of a **certified** structural engineer Licensed by the Kansas Board of Technical Professions to practice engineering in the State of Kansas or a **certified** structural engineering firm Licensed by the Kansas Board of Technical Professions to offer engineering services in the State of Kansas [if you use the terms 'engineer' or 'engineering firm' you should use my proposed language] to conduct all necessary inspections on each turbine. Inspections shall include, but not be limited to; foundation, structural assembly, mechanical, and electrical. For the purposes of the inspections regarding the WECS, the most current building and construction code published by the International Code Council and the most current electrical code published by the National Fire Protection Association shall be applicable on behalf of Marion County, Kansas. Documentation regarding each approved inspection shall be filed with the Zoning Administrator. All costs associated with the inspections shall be paid to Marion County, Kansas, by the WECS owner.
5. Construction (On-site). [What is the definition of 'on-site'? Is the 'site' the entire permitted area, or is the intent for 'site' to be an individual wind turbine tower site?] Prior to the start of, and continuously throughout construction and site restoration, the WECS owner 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 and whenever construction activities are actually in progress. [If contractors are working nights and weekends, we need to be able to contact the field representative; otherwise the contractor's employees could be doing something improper for up to 86 hours before the field representative could be contacted to get things stopped or corrected (Friday after 5pm to 8am on a Tuesday, if Monday was a Holiday)] The designated field representative shall provide an address, phone number and emergency phone number to the Zoning Administrator and 911 Emergency services officials of the County. Said information shall be available to residents, officials, and other interested persons by the County. The WECS owner shall notify the Zoning Department and 911 Emergency services should a change be made in the designated field representative. 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.
6. Construction (Off-site). [What is the definition of 'off-site'? Is the 'site' the entire permitted area, or is the intent for 'site' to be an individual wind turbine tower site?] Any new infrastructure or off site accessory structures required for the project to progress shall be described, including the following:



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- A. Requirements for new transportation infrastructure and/or upgraded, realigned, or new road.
  - B. Changes to electrical sub-stations.
  - C. Changes to existing power transmission systems, including any upgrades to existing transmission lines.
  - D. Requirements for the realignment of other utilities affected by the project.
7. The WECS owner, or ~~his~~ [Regulations should be gender neutral. This should either be “his/her” or preferably be ‘its’.] construction company, shall disturb or clear the site only to the extent necessary to assure suitable access for construction, safe operation, and maintenance of the WECS. The contractor shall minimize the removal of trees and shall not remove groves of trees or hedgerows (shelter belts) without approval of the affected landowner. The contractor shall separate and protect topsoil from subsoil. On cultivated land, the contractor 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.
8. Cleanup. The WECS owner or ~~his~~ [Regulations should be gender neutral. This should either be “his/her” or preferably be ‘its’.] contractor 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.
9. Operation & Maintenance. The WECS owner shall be filed with the Zoning Administrator information concerning the following:
- A. Operation and maintenance requirements (including frequency of maintenance activities) for the turbines and transmission lines.
  - B. Width of transmission line easements required, and, any restrictions necessary on land use, development, and access within said easement.
10. If ownership of the WECS is to be transferred from the WECS developer identified in the original permitting documents at the time of initial construction of the WECS to a different unrelated entity, the new owner shall be responsible for and accountable to the Conditional Use Permit and all other requirements of the Conditional Use Permit and conditions and requirements of the construction permits and all other rules and regulations applicable to the WECS as established by Marion County, Kansas. Evidence of such compliance shall be provided to the Zoning Administrator.

