

**SPECIAL USE APPLICATION, REVIEW AND APPROVAL CRITERIA FOR A  
COMMERCIAL WIND ENERGY PROJECT (CWEP) FOR THE ZONING REGULATIONS  
OF HARPER COUNTY/CITIES, KANSAS.**

**Note:** See Section 4-101B17 in the A-1 Agricultural District (County Jurisdiction) for a CWEP as a Special Use.

**A. Purpose.**

The purpose of this statement is to outline required information for application of a Special Use and review and approval criteria for a Commercial Wind Energy Project (CWEP). A Development Plan is to be submitted with the application. These criteria are written to:

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

Information in the Application and Development Plan shall be as current as possible at the time of submission. Where information is unavailable or not yet finalized, estimates and/or alternative options shall be provided and noted as estimates or alternatives. Not all matters in the criteria are relevant to all aspects of a project. Only those matters relevant to the particular project need be addressed.

**B. Intent.**

These criteria are intended to:

- Address major issues associated with the project; however, they are not all inclusive. Issues not listed may be deemed significant and issues may emerge as significant (studies, public input) during the course of review.
- These criteria are not intended to regulate the installation of the smaller individual private wind energy conversion systems. (See Sections 6-100B14 and Section 2-102 for definition of Height, Maximum.)

The Development Plan shall be written in a style that is easily understood by the general reader. Technical terminology shall be avoided as much as possible. Detailed technical data, statistics and supplementary information required to support the main text is to be included as appendices. All sources of information are to be referenced, and must be current. Information presented as maps, diagrams or plans is preferred as it is generally easier to understand.

Close consultation with the Zoning Administrator during preparation of the Development Plan is highly recommended. More than one draft may be required before it is considered suitable for presentation to the Planning Commission.

These requirements specify the maps, information surveys and studies that must be submitted as part of the Special Use application. The 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.

If approved, the Special Use shall encompass the perimeter of the proposed CWEP. One application, with landowner's signatures(s), shall be required for all the land located within the perimeter of the Special Use.

**C. Key Issues.**

Key issues relating to a CWEP are listed below. These issues include, but are not limited to:

- Land Use
- Visual Impact
- Noise
- Bird migration / strikes
- Endangered Species
- Soil Erosion
- Water Quality
- Infrastructure
- Aviation / Lighting
- Electromagnetic Interference
- Reception Interference
- Cultural Heritage
- Native Vegetation / Weeds
- Cumulative Impact
- Wildlife Habitat
- Public Health and Safety
- Decommissioning / Restoration
- Financial Surety Agreement

**D. Power Purchase Agreement (PPA).**

Approval of a Special Use 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 CWEP. The Applicant shall advise the Administrator when it obtains a PPA and shall provide such documentation confirming said agreement.

Unless an alternate timeline is determined as a condition attached to the approved Special Use on a case by case basis, the PPA must be obtained within one year of the date of publication of the Resolution effectuating the Special Use. This one year period may receive up to a 6-month extension upon written request by the Applicant and subsequent approval by the Board of County Commissioners.

In the event the Applicant does not obtain a PPA within the 12 to 18 month time span, the Resolution effectuating the Special Use shall automatically become null and void.

A Zoning Permit shall be issued only after the Administrator receives documentation confirming said PPA and all conditions pertaining to a CWEP have been satisfied.

**E. Requirements for Special Use approval shall include, but not be limited to:**

In addition to the requirements of Section 11-101 for processing a Special Use in the Zoning Regulations, the following requirements shall apply to a Special Use application for a CWEP:

1. Turbine Location Requirements:
  - a. No turbines shall be located closer than 500 feet or the total height of the turbine plus 50 feet, whichever is greater, from public roads.
  - b. No turbines shall be located closer than 500 feet or the total height of the turbine plus 50 feet, whichever is greater, from lot lines of any property not included in the Special Use.
  - c. No turbine shall be located closer than 1,000 feet from an active residential building. Turbines shall be located no closer than the total height of the turbine plus 50 feet from an accessory structure.
  - d. An active residential building located within the 1,000 feet area described above may be located within that area if the property owner supplies a properly signed and executed waiver form that will be supplied to the Applicant and filed with the Special Use application.
  - e. Total turbine height is defined as the height of the structure supporting the turbine, plus the height of the rotor blade at its highest point, measured from the elevation of the ground surface at the base of the tower.
2. Communication lines and power collection lines are to be installed underground in the area covered by the Special Use. Said lines are to be located under or at the edge of turbine access roads. Above ground transmission lines **may be** used only in public rights of way or

easements. If, however, there is documented evidence by the Applicant that there are specific existing and potential circumstances in the area affected by physical, environmental and economic situations which may justify alternative construction above ground for such installations, consideration may be given to modifications of the above standards in all or a part of the area to mitigate such concerns. Such modifications shall be specifically described in a condition attached to the approval of the special use.

3. A Power Purchase Agreement (PPA) and a surety bond for deconstruction purposes must be approved and accepted before any Zoning Permit is issued for construction to begin.
4. Transportation routes used for construction shall be coordinated with the County Engineer. A road agreement must be approved before any Zoning Permit is issued for construction to begin.
5. Applicant shall be held liable for any damage to County roads or rights of way resulting from tower construction, deconstruction and/or maintenance activity.
6. Lowest point of the rotor blades shall be at least 68 feet above ground level at the base of the tower.
7. If lubricants and/or hazardous materials are needed to be located on the premises in connection with the CWEP, said materials shall be kept and transported in accordance with all state and federal regulations.
8. There shall be no lights on the towers other than those required by the minimum standards of the Federal Aviation Administration (FAA). Lighting shall consist of dual lighting equipment with daytime white lights and nighttime red lights only. No high intensity or nighttime strobes shall be permitted. These restrictions shall not apply to infrared heating devices used to protect the wind monitoring equipment.
9. 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 feet below the ground surface and the area removed filled with four foot of soil, which is reasonably similar in quality to that of the original excavation. 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 CWEP application was filed. The landowner may choose to have access roads left intact.
10. Structures for wind turbines shall be self-supporting tubular towers painted a neutral color such as a white or pale gray. No lattice-type structure or other non-reflective designs that would provide perches for avian predators shall be used. To promote visual uniformity, the rotors, nacelles and towers in an array should appear similar. No logos or advertisements are allowed on these structures. Each turbine shall be marked with a visible identification number located no higher than 15 feet above ground level.

11. 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. CWEP shall operate in conformance with the Federal Communications Commission (FCC) regulations.
12. 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.
13. 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 in Anthony.
14. A certified structural engineer or certified structural engineering firm selected by the Applicant 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.

All expenses of the said engineer or engineering firm shall be the responsibility of the Applicant or holder of the Special Use. Harper 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.

15. If the Special Use 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 Special Use. The second party or new holder of the Special Use shall meet the surety bond requirements and all other requirements of the Special Use. The County Commissioners may direct the Administrator and/or a designated person to field inspect the Special Use project to determine current compliance with required conditions. A transfer fee of \$100.00 per turbine shall be paid to the County.

**F. Contents of CWEP Development Plan.**

1. Introduction: This section shall provide information on the following:
  - a. Name of the project.
  - b. Phases of construction (if applicable).
  - c. Two maps showing vicinity and project location. One at 1:100,000 scale and one at 1:2,000 scale (U.S.G.S. scale).
  - d. Name, address and phone number of the developer and similarly for the contact person. An overview of the company from the developer providing relevant

information regarding qualifications and experience in commercial wind energy development and environmental management history of the company.

- e. Relevant background information on the project, including a general overview of the project location, time frame and project life, phases of development, likely markets for electricity produced and possibilities for future expansion.
  - f. Reasons for the choice of this location.
  - g. Adopted environmental guidelines and industry codes of practice that will be followed if approved.
  - h. An inventory of existing wildlife, endangered species, wetlands and other biologically sensitive areas within the site.
  - i. Archeological reconnaissance survey within the site that will be impacted by the construction or operation of the CWEP. Survey shall be provided to the State Historic Preservation Office (SHPO) to determine if cultural resources are present. Any unrecorded cultural resources that are found shall be evaluated for integrity and potential listing on the State Historic Site Survey and/or the National Register of Historic Places. Undocumented resources that are eligible for listing on the National Register of Historic Places shall be avoided. All archaeological investigations shall meet the SHPO standards and guidelines.
  - j. An estimated economic cost/benefit analysis describing the impact on the local economy in respect, but not limited to, construction and permanent jobs, taxes, electricity generated, tourism, infrastructure and emergency services.
2. Site Plans: A Site Plan with the following specifications shall be submitted:
- Scale of 1" = 2,000';
  - Scale and north point (up);
  - Name, address and phone number of landowner(s), land developer and designated contact person;
  - Boundary of the entire site including delineation of individual landowners, if applicable, and boundary of area affected by Special Use;
  - Acreage of site and point(s) of access to the project;
  - Topography with contours at intervals of 20 feet;
  - Adjoining streets with names and location of nearby railroads and airports;
  - Transmission lines;
  - Active residential buildings within 1,000 feet of the site boundary;

- Natural and man-made features on the site including woodlands, creeks, wetlands, etc.;
  - Wind characteristics (histograms) and dominant wind directions;
  - Schematic location of turbines, electric collector and feeder lines, electrical equipment, maintenance roads and other associated facilities;
  - Proposed setbacks of all structures from the boundary lines;
  - Boundaries of any 100-year floodplain as identified on the Federal Insurance Administration's "Flood Hazard Boundary Maps" of Harper County, Kansas; and
  - Show the location and purpose of any underground pipelines and other utility easements.
3. General Construction Document Requirements: Applicant shall provide:
- a. *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.
- b. *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 Special Use. Said representative shall be accessible by telephone during normal business hours. Address, phone number and emergency phone number shall be provided to the Zoning Administrator and 911 Emergency service and shall be available to residents, officials and other interested persons. Applicant is required to notify the Administrator and 911 Emergency service should they change their designated representative.
  - A description and general schedule of major construction activities for the turbines, transmission lines and accessory structures related to the CWEP.
  - An outline of any proposed site preparation involving removal of vegetation and restoration of the site due to construction.
  - The volume and designated route for traffic generated during the construction phase, including oversized and heavy equipment.
  - Applicant shall inform all employees, contractors and others involved in the construction of the CWEP of the terms and conditions of the Special Use.

- 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.

c. *Construction — (Off-site)*

Any new infrastructure or off site accessory structures required for the project to progress shall be described, including the following:

- Requirements for new transportation infrastructure and/or upgraded, realigned or new road.
- Changes to electrical substations.
- Changes to existing power transmission systems, including any upgrades to existing transmission lines.
- Requirements for the realignment of other utilities affected by the project.

d. *Operation and Maintenance -*

- Operation and maintenance requirements (including frequency of maintenance activities) for the turbines and transmission lines.
- Width of transmission line easements required and any restrictions necessary on land use, development and access within said easement.

4. Mitigation Measures: Applicant shall address the following potential environmental effects and shall provide plans to mitigate each:

a. *Overview of existing environment. Information shall include data regarding:*

- Flora — vegetation species, threatened species (officially listed), critical habitat and habitat conditions for such species.
- Fauna — species, habitat assessment, threatened species (officially listed), migratory species, critical habitat and habitat conditions for such species.
- Geoconservation — sites of geoconservation significance listed on the state/national database.
- Floodplain zones.

b. *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 CWEP.

- Applicant shall minimize the removal of trees and shall not remove groves of trees or hedgerows (shelter belts) without approval of the affected landowner.
- On cultivated land, Applicant shall minimize compaction of the land during all phases of the CWEP's 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.

c. *Roads-*

(1) Public Roads

- Applicant shall identify all County roads that will be used for the CWEP and shall notify the County Road and Bridge Department to determine if it needs to inspect the roads prior to their use. Where practical, existing roadways shall be used for all activities associated with the CWEP.
- Applicant and the Board of County Commissioners 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 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 CWEP purposes.

(2) Turbine Access Roads

- Applicant shall construct the smallest number of turbine access roads necessary.
- 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 the regulations pertaining to building a structure in a floodplain zone of the Federal Emergency Management Agency and the floodplain management regulations of the Zoning Regulations of Harper County/Cities, Kansas.

d. *Soil Erosion, Sediment Control and Storm Water Runoff-*

(1) Applicant shall develop a Soil Erosion, Sediment Control and Storm Water Runoff Plan.

(2) The above plan shall address what types of erosion control measures will be used during each phase of the project. It shall identify plans for:

- Grading.
- Revegetation to ensure slope stability.
- Construction and drainage of access roads and turbine pads.
- Necessary soil information.
- Restoring the site after temporary project activities.
- Design features to maintain downstream water quality.

(3) Soil Erosion, Sediment Control and 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.

e. *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.

f. *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 may be a common practice in the 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 information is the Kansas State University Research and Extension office located in Anthony. (Also see Section E-13.)
- “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:
  - (1) Is designed to confine the fire to a predetermined area and to accomplish planned land management objectives; and,
  - (2) Conforms to the standards established by the Kansas State University Research and Extension office in Anthony.

g. *Water-*

(1) Surface water

- Applicant shall identify effects of the CWEP (especially during construction) and methods to be used to mitigate these effects, if any.

(2) Ground water

- Applicant must demonstrate that the CWEP is consistent with the objectives and requirements of all relevant water management policies of the County including:
  - (a) Protection of the quality and quantity of the areas ground water resources.
  - (b) Maintenance of existing ground water quality.

h. *Air Quality-*

- Applicant shall submit a plan to control dust on turbine access roads, especially during construction.

i. *Noise-*

- The maximum sound level permitted for a CWEP at any time shall not exceed 60 decibels (A-weighted) measured at five feet above ground level at the boundary of the Special Use property and shall not exceed 50 decibels (C-weighted) if it is determined that a pure tone noise is generated by the project. Turbines shall be moved or modified or removed (and decommissioned) from service if necessary to comply with this condition.

j. *Land Use and Development-*

(1) Applicant shall identify potential effects in terms of constraints or benefits the CWEP may place on the current or future use of the land within the project site and the surrounding area. The extent of any limitations due to public health and safety risks shall be specifically addressed, and, the effects on the following activities shall also be addressed:

- Existing or proposed tourist or recreation activities.
- Agricultural activities
- Local and regional tourism
- Residential activities
- Commercial activities
- Industrial activities

k. *Electromagnetic Interference-*

- Applicant shall not operate the CWEP 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 CWEP and its associated facilities or its operations cause such interference, Applicant shall take timely measures necessary to correct the problem.

5. Computer-generated visual simulation of project's components from key vantage points as determined by the Zoning Administrator in consultation with the Applicant.

**G. Decommissioning / Restoration / Abandonment.**

1. Decommissioning Plan:

- Applicant shall submit a Decommissioning Plan describing the manner in which the CWEP will be dismantled and removed from the site at the end of its useful life. All above ground components of the CWEP shall be removed. Foundations shall be removed to four feet below ground level and the area removed filled with four foot of soil which is reasonably similar in quality to that of the original excavation. Remainder of foundation may be left intact. Access roads shall be removed to the owner's satisfaction.
- Applicant shall submit an Escrow Account / Surety Bond / Insurance Policy in an amount approved by the Board of County Commissioners as reasonably necessary to restore the site to its pre-CWEP topography and reasonably similar soil quality. The

purpose of this account / bond / policy is to assure removal of all improvements subject to the Special Use at the end of the project's life, or in the event of abandonment of the CWEP.

- Abandonment shall include any one year period following delivery by certified mail of written notice of abandonment to the owner of record when a completed wind turbine does not produce any electric energy and there is no demonstrated plan to restore the equipment to operating condition.
- Upon termination of the aforesaid one year period, abatement shall proceed as set forth in these criteria. The Board of County Commissioners may require Applicant or Holder of Special Use to decommission any abandoned turbine.
- At the end of the CWEP's useful life, or if the CWEP is abandoned, the site shall be restored in accordance with the requirements of this condition within 18 months.

#### **H. Monitoring and Review.**

1. This section shall provide an outline of a monitoring, review and reporting program for each part of the project. Details shall include any pre-construction monitoring / studies, sites to be sampled, sampling procedures, the parameters to be analyzed, frequency of sampling and reporting. A Site Plan showing sampling locations is required.

#### **I. Extraordinary Events.**

1. Within 48 hours of an occurrence, the Applicant shall notify the Zoning Administrator of any extraordinary event. Extraordinary events include:
  - Tower collapse.
  - Turbine failure.
  - Kills of threatened or endangered species.
  - Thrown / broken blade or hub.
  - Collector-feeder line failure.
  - Discovery of an unexpectedly large number of dead birds of any variety on site.
  - Injured worker or citizen.
  - In the event of extraordinary avian mortality, the Applicant shall within 30 days of the occurrence submit a report to the Administrator, the Kansas Department of Parks and Wildlife, and the U.S. Fish and Wildlife Service describing the cause of the occurrences and the steps taken to avoid future occurrences.

**J. Transfer of Special Use.**

1. Special Use shall not be transferred from one party to a different party without approval of the Board of County Commissioners. Applicant shall advise the Board and the Zoning Administrator, in writing, of a requested approval. All new Special Use holders shall be required to meet the same conditions as the original Applicant. The new Special Use Holder shall also meet the surety bond / escrow requirement to insure the CWEP is decommissioned and removed to Special Use specifications at the end of the projects useful lifespan or in case of abandonment.

**K. References.**

1. This section shall provide details of authorities consulted, reference documents, etc.

**L. Appendices.**

1. All detailed technical information that supports the Development Plan should be included in appendices. The most important features of the appendices shall be included in the main body of the Plan.

**M. Financial Agreement.**

1. Bond, Escrow Account or Surety Agreement. (Use of the term “bond” hereafter refers to the financial agreement chosen whether it be a bond, escrow account or surety agreement.)
  - a. Applicant shall obtain a surety bond naming Harper County, Kansas as payee in a form acceptable to the Board of County Commissioners. Applicant shall maintain said bond through the lifespan of the Commercial Wind Energy Project. Bondholder shall provide the County annual notification of bond status. Bondholder shall also provide the County 30-days written notice of any cancellation thereof.
  - b. In the event the Applicant or Special Use Holder is in noncompliance or default due to nonpayment, the County shall have the right to call said bond and use it for decommissioning purposes. Should there be any remaining balance, the County shall have the right to withhold refund payment until the decommissioning process is completed to the County’s satisfaction.
2. Liability on Termination or Expiration.
  - a. In the event of termination of this Special Use for any reason, the Special Use Holder shall remain liable to the County for any expense incurred by the County that is above and beyond what is covered by the bond, escrow account and/or surety agreement.
  - b. Special Use Holder shall remain liable to the County for any unspent funds, the expenditure or use of the funds in a manner or for a purpose not authorized by this agreement and/or damages as a result of any breach of this agreement by the Special Use Holder.

- c. The County shall have the right, at any time prior or subsequent to any remedies, including seeking injunctive or other equitable relief, to enforce the provisions of this agreement and/or recover funds, which are unspent, expended or used in an unauthorized manner or for an unauthorized purpose and/or damages sustained by the County as a result of any breach of this agreement by the Special Use Holder.

3. Non- liability.

- a. Nothing in the financial agreement or otherwise shall impose any liability or duty whatsoever on Harper County or any of its agencies, including, but not limited to any liability for taxes, wages or any other employee benefits for any person or entity. Contractors, suppliers or consultants accepting and relying on documents, materials and other information from the Applicant or Special Use Holder will do so on their own responsibility and at their risk.

**N. Variance.**

1. The definition of Height, Maximum in Section 2-102 of the Zoning Regulations provides an exception for the maximum height of a CWEP. Variances are available to a CWEP through the Board of Zoning Appeals for other dimensional and numerical requirements as authorized by Section 10-107C of the regulations.