

## SECTION 41 - WIND ENERGY REGULATIONS

### 41.1 PURPOSE

The purpose of the Wind Energy Regulations is to provide for the construction and operation of Wind Energy Facilities in Sarpy County, subject to reasonable restrictions, which will preserve the environment, public health, safety and welfare. Sarpy County finds that there is a public interest in installing renewable and nonpolluting energy sources.

### 41.2 TITLE

This regulation shall be known and cited as the Sarpy County Wind Energy Regulation.

### 41.3 DEFINITIONS

For purposes of this regulations, and where not inconsistent with the context of a particular section, the defined terms, phrases, words, abbreviations, and their derivations shall have the meaning given in this section. When not inconsistent with the context, words in the present tense include the future tense, words used in the plural number include words in the singular number and words in the singular number the plural number. The word "shall" is always mandatory, and not merely directory.

**Applicant** means any person or entity submitting an Application for a permit for a Wind Energy Facility.

**Application** means all necessary and appropriate documentation that an Applicant submits in order to receive a permit for a Wind Energy Facility.

**Capacity** means the amount of electricity produced by the wind energy facility measured in kilowatts (kW).

**Completed Application** means an application that contains all information and/or data necessary to enable an informed decision to be made with respect to an application.

**County** means the local political subdivision described as Sarpy County as set forth in State Statutes. When the term County is used to refer to a geographic area, it shall denote any areas within the County boundaries excluding areas within the extra territorial zoning jurisdiction of any City or Village within the County.

**County Board** means the Sarpy County Board of Commissioners.

**Director of Planning** means the Sarpy County Director of Planning.

**Environmental Review** means a detailed examination of the applicant's proposal and its local environmental context with an emphasis on avoiding, minimizing, and mitigating adverse impacts.

**FAA** means the Federal Aviation Administration, or its duly designated and authorized successor agency.

**Facility Operator** means the entity responsible for the day-to-day operation and maintenance of the Wind Energy Facility.

**Facility Owner** means the entity or entities having controlling or majority equity interest in the Wind Energy Facility, including their respective successors and assigns.

**Nacelle** means the body/shell/casing of a propeller-type wind turbine that covers the gearbox, generator, blade hub, and other parts.

**Nebraska Game & Parks Commission** – means the commission responsible for the stewardship of the states' fish, wildlife, parks and other resources.

**Non-Participating Landowner** means any landowner not under agreement with the Facility Owner or Operator.

**Occupied Building** means a residence, school, hospital, church, public library, or other building used that is occupied or in use when the permit application is submitted.

**OPPD** means Omaha Public Power District.

**Participating Landowner** means a landowner under lease or other property agreements with the Facility Owner or Operator pertaining to the Wind Energy Facility.

**Planning Commission** means the Sarpy County Planning Commission.

**Public Road** means a full passage right-of-way.

**Setback** means the minimum distance, measured in feet, between the wind energy facility and the property line or access easements.

**Special Use Permit** means the official document or permit by which an Applicant is allowed to file for a building permit to construct and use a Wind Energy Facility as granted or issued by the County Board.

**State** means the State of Nebraska.

**Tower Height** means the height above grade of the fixed portion of the tower, excluding the wind turbine itself.

**U.S. Fish and Wildlife Service** means the bureau of the Department of the Interior that works to conserve, protect and enhance fish, wildlife and plants and their habitats.

**Wind Energy Facility** means an electric generating facility, whose main purpose is to supply electricity, consisting of one or more Wind Turbines and other accessory structures and buildings, electrical infrastructure, transmission lines and other appurtenant structures and facilities. For the purpose of this regulation, the term includes roof-mounted or building integrated roof mounting systems.

**Wind Energy Facility, Small** means a single system designed to supplement other electricity sources as an accessory use to existing buildings or facilities, wherein the power generated is used for on-site consumption. A small wind energy conversion system consists of a single wind turbine, a tower, and associated control or conversion electronics, which has a total rated capacity of 25 kW or less. Monopole facilities are encouraged.

**Wind Power** means the conversion of wind energy into another form of energy.

**Wind Turbine** or windmill is a wind energy conversion system that converts wind energy into electricity through the use of a wind turbine generator, and may include a nacelle, rotor, tower, guy wires and pad transformer.

**Wind Turbine Height** means the distance measured from grade at the center of the tower to the highest point of the turbine rotor or tip of the turbine blade when it reaches its highest elevation.

#### 41.4 **OVERALL POLICY AND DESIRED GOALS FOR PERMITS FOR WIND ENERGY FACILITIES**

In order to ensure that the placement, construction, and modification of Wind Energy Facilities protects the County's health, safety, public welfare, environment features, the nature and character of the community and neighborhood and other aspects of the quality of life specifically listed elsewhere in the Regulation, a special use permit is required for all small wind energy systems.

#### 41.5 PERMIT APPLICATION

The permit application shall contain the following:

- (A) narrative describing the proposed Wind Energy Facility, including an overview of the project; proposed total rated capacity of the Wind Energy Facility;
- (B) The proposed number, representative types and height or range of heights of wind turbines to be constructed; including their generating capacity, dimensions and respective manufacturers, and a description of ancillary facilities;
- (C) Identification and location of the properties on which the proposed Wind Energy Facility will be located;
- (D) A site plan and construction drawings, including engineering stamp when applicable, showing the planned location of all wind turbines, property lines, setback lines, access roads and other site features;
- (E) Certification of compliance with applicable local, state, and Federal regulations, such as FAA and FCC regulations;
- (F) Other relevant information as may be reasonably requested by Sarpy County to ensure compliance with the requirements of the regulation;
- (G) Decommissioning plans that describe the anticipated life of the wind power project, the estimated decommissioning costs in current dollars, the method for ensuring that funds will be available for decommissioning and restoration, and the anticipated manner in which the wind power project will be decommissioned and the site restored;
- (H) Documentation of agreement between Participating Landowner(s) and the Facility Owner/Operator of the Wind Energy Facility;
- (I) Signature of the Applicant;
- (J) Elevations of the wind energy facility;
- (K) Signed Interconnection agreement with local power company, OPPD if the applicant intends to interconnect to the power grid;
- (L) Signed Development agreement that addresses decommissioning of the wind energy facility and proof of liability insurance.

#### 41.6 SETBACKS

The minimum setback requirement is calculated by multiplying the required setback number by the Wind Turbine Height and measured from the center of the wind turbine base to the property line, or road. The required setback number is as follow:

Wind Energy Facility Type	Setback from Occupied Buildings on Property	Setback from Property Lines and Access Roads
Small Wind Energy System	0.0	1.5 times the height of the system

#### 41.7 HEIGHT

Tower height shall be permitted up to eighty (80) feet for freestanding small wind energy systems. Rooftop systems are limited to the existing district height for primary structures.

#### 41.8 NOISE

Audible sound from a Wind Energy Facility shall not exceed fifty-five (55) dBA, as measured at any property line.

#### 41.9 INSTALLATION AND DESIGN

- (A) The installation and design of Wind Energy Facilities shall conform to applicable industry standards, including those of the American National Standards Institute, and take into consideration local conditions.
- (B) All Wind Energy Facilities 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 fail-safe mode. Stall regulation shall not be considered a sufficient braking system for over speed protection.
- (C) All structural, electrical and mechanical components of the Wind Energy Facility shall conform to relevant and applicable local, state and national codes.
- (D) Wind Energy Facilities shall be outside of any protected species habitat areas identified by the Nebraska Game and Parks Commission and U.S. Fish and Wildlife Service and at least 1,500 feet setback from wetlands unless the reviewing bodies find the system will not impact the habitat areas. These distances may be adjusted to be greater or lesser at the discretion of the reviewing body, based on topography, land cover, or land uses.
- (E) The visual appearance of the Wind Energy Facilities shall at a minimum:
  - 1. Be a non-obtrusive color such as white, off-white, or gray;
  - 2. Not be artificially lighted, except to the extent required by the Federal Aviation Administration or other applicable authority that regulates air safety, and,
  - 3. Not display advertising (including flags, streamers, or decorative items), except for identification of the turbine manufacturer, facility owner and operator and no larger than one square foot in area.
  - 4. Not be installed at any location that would substantially detract from or block the view of the major portion of a recognized scenic area, as viewed from any public road right-of-way.
  - 5. Encourage monopole towers.

#### 41.10 DECOMMISSIONING

- (A) The Wind Energy Facility Owner shall have six (6) months to complete decommissioning of the Facility if no electricity is generated for a continuous period of six (6) months.
- (B) Decommissioning shall include removal of wind turbines, buildings, cabling, electrical components, roads, and any other associated facilities down to thirty-six (36) inches below grade.
- (C) Disturbed earth shall be graded and re-seeded, unless the landowner requests in writing that the access roads or other land surface areas not be restored.
- (D) A development agreement, prepared by the County, must be signed and part of the application to address decommissioning responsibilities and filed with the Register of Deeds.