

Planning Commission Memo

To: Marion County Planning Commission; Emma Tajchman, County Zoning Administrator

From: David L. Yearout, AICP, CFM

Date: July 19, 2016

Re: Proposed Amendments to the Marion County Zoning Regulations – Commercial Wind Energy Systems

The topic of considering major changes to the existing rules and regulations concerning Commercial Wind Energy Systems has now reached the “front burner” and requires specific direction from the Planning Commission.

To start, I trust the Planning Commission will recall that certain amendments were included in the ultimate rewrite of the regulations, the most relevant to this topic being to include some definitions and to modify the “performance standards” to allow the small, individual “wind energy systems” on individual lots. Those amendments are as follows:

1-104 Definitions. Amend or add the following definitions:

WIND ENERGY CONVERSION SYSTEM: The combination of mechanical and structural elements used to produce electricity by converting the kinetic energy of wind to electrical energy. Wind Energy Conversion Systems consist of the turbine apparatus and any other buildings, support structures and other related improvements necessary for the generation of electric power from wind.

WIND ENERGY CONVERSION SYSTEM, COMMERCIAL: A single Wind Energy Conversion System exceeding 25 kW or exceeding 199 feet in height above grade, or more than one Wind Energy Conversion System of any size proposed and/or constructed by the same person or group of persons on the same or adjoining parcels or as a unified or single generating system.

WIND ENERGY CONVERSION SYSTEM HEIGHT: The distance measured from the ground level at the base of the tower structure to the highest point on the Wind Energy Conversion System, including the rotor blades.

WIND ENERGY CONVERSION SYSTEM, SMALL: A wind energy conversion system consisting of a wind turbine, a tower, and associated control or conversion electronics, which has a rated capacity of not more than 25 kW, which is less than 199 feet in height above grade and which is intended to primarily reduce on-site consumption of utility power.

Additionally, new language was placed in the Regulations as follows:

13-102 Performance Standards - Districts "A", "RR", "SR", "ES", "LL", "R-1" and "V-1": The following are the performance standards for the "A" Agricultural District, "RR" Rural Residential District, "SR" Suburban Residential District, "ES" Marion Reservoir Eastshore Subdivision Residential District,

“LL” Marion County Lake Lot Residential District, “R-1” Single-Family Residential District and the “V-1” Village District.

5. Where permitted as an accessory use, small wind energy conversion systems shall conform to the following standards:
 - a. The maximum capacity of the system shall be 25 kW. There shall be no more than one (1) system on an individual property.
 - b. The lowest point of the rotor blades shall be at least 20 feet above ground level at the base of the tower.
 - c. The maximum height of the structure shall be 199 feet as measured to the top of the blade at its highest point.
 - d. The minimum setback shall be a distance equal to the height of the structure from all property lines.
 - e. Any standards proposed to exceed those stated herein shall be permitted only by the issuance of a Conditional Use Permit after proper notice and hearing as provided by these Regulations.

The purpose of this memo is to place, what I believe are the two primary “issues”, on the table for discussion and give some alternative language that might be considered. The two “issues”, in my opinion, are as follows:

Elimination of Overlay District –

The idea is to change the area in which a Commercial Wind Energy System might be considered. Presently, these facilities are limited to a defined area in the southern portion of the county only. The recent approval of a Conditional Use Permit for “MET” towers in the northwest corner of the County brought to light the fact that changes have occurred in some of the basic support infrastructure, namely in the larger electric transmission lines, in that vicinity, which might lend itself to providing the means to make a Commercial Wind Energy System economically viable for a developer. If this is acceptable to the County, the amendment is a simple elimination of the “territory” described for the Overlay and indicate the rules and regulations are applicable to the entire County.

Modification of Wind Energy Conversion Systems Submittal Requirements and Standards–

The current language in Article 27 requires extensive submittals on issues beyond land use regulations. The County may have believed these “environmental studies” were necessary to help justify the location proposed for a Commercial Wind Energy System facility, but the County does not have the staff or expertise to evaluate these “studies” to determine whether the findings provided truly meet any kind of standard or requirement established locally. The major question, in my opinion, is whether the County gains anything in addressing the “land use question” that is the real issue in the Conditional Use Permit public hearing and decision.

Additionally, I believe everyone understands that all these “environmental studies” are necessary in order for any developer of a Commercial Wind Energy System to obtain financial support, as well as all other “state and federal” permitting that will be required for the project to be built. These can, and perhaps should, be required to be placed on file with the County if the project is built...but to require this level of investment before the exclusive local decision of whether the proposed project will obtain the “land use” approval, seems to be somewhat out of order and perhaps unnecessary.

I have had the pleasure of developing local Zoning Regulations for a number of County in Kansas and, with the exception of Marion County, all other counties have taken the approach of requesting documentation of the “land use” issues for a proposed Commercial Wind Energy System; but not the extent of the current Marion County regulations. For example, a couple of recent regulations only address these projects as follows:

DICKINSON COUNTY:

13. A Commercial Wind Energy Conversion System, subject to the following:
 - a. Wind Energy Conversion System shall meet the following setback requirements:
 - (1) The height of the Wind Energy Conversion System plus 50 feet from public roads.
 - (2) A distance equal to twice the Wind Energy Conversion System height from a residential structure.
 - b. Maintaining continuous liability insurance coverage in an amount not less than \$1,000,000.00 with the County named as an additional insured. In lieu of such coverage the permit holder may provide an indemnification agreement satisfactory to the County.

RENO COUNTY:

13. A Commercial Wind Energy Conversion System, subject to the following:
 - A. Wind Energy Conversion System shall meet the following setback requirements:
 - (1) The height of the Wind Energy Conversion System plus 50 feet from public roads.
 - (2) A distance equal to twice the Wind Energy Conversion System height from a residential structure.
 - B. Maintaining continuous liability insurance coverage in an amount not less than \$1,000,000.00 with the County named as an additional insured. In lieu of such coverage the permit holder may provide an indemnification agreement satisfactory to the County.

OSAGE COUNTY:

9. Commercial Wind Energy Conversion System when located in the “AG” Agricultural District, subject to the following:
 - A. Strict conformance to all performance standards as detailed in these Regulations. The requirement for construction to begin within one (1) year may be extended to 18 months on written request by the developer showing that circumstances beyond their control has prevented them from obtaining a building permit.
 - B. The following setback requirements shall apply to the development:
 1. The height of the Wind Energy Conservation System plus 50 feet from all public roads.
 2. A distance equal to twice the Wind Energy Conversion System height from a residential structure.
 - C. All communication lines and power collection lines shall be installed underground, under or at the edge of the access roads. Aboveground transmission lines may be used only in public rights-of-way or easements.
 - D. The applicant shall apply for a construction permit for each Wind Energy Conversion System structure and shall do so prior to commencing construction.
 - E. The lowest point of the rotor blades shall be at least 100 feet above ground level at the base of the tower.
 - F. No significant quantities of lubricants shall be kept on site. No hazardous materials shall be kept on site.

SEWARD COUNTY:

8. Commercial Wind Energy Conversion System when located in the unincorporated portion of Seward County, subject to the following:
 - A. Provide name, address and phone number of the developer, the project manager, the operational manager, all contractors authorized to work on the project, and the owner of the project if different from the developer.
 - B. The development plan required by these Regulations shall contain the following information:
 1. The nature and scope of the project, including a plot and development plan showing the location of the project, scale and north arrow, acreage of the site, physical dimensions and project boundaries, ingress and egress locations, location of proposed road crossings or right-of-way

encroachments, storm water management and erosion control including 100-year floodplain boundaries.

2. Location of all existing buildings, structures, homes within ½ mile of the project boundary, electrical transmission lines and facilities, and utilities, utility easements, underground pipelines and underground utilities within the project boundary.
 3. Information detailing the type, size, maximum and minimum height, rotor size, rotor material, color, rated power output, performance, safety and noise characteristics of each proposed wind turbine model, tower, and electrical transmission equipment. Provide tower/turbine details that assure the tower shall not be lattice/type or other design that provide perches.
- C. Provide information detailing anticipated volume and designated route for construction traffic, including oversized loads and heavy equipment, with proposed methods of assurance regarding maintenance and repair to public roads, bridges or culverts during construction. Provide information regarding the traffic control plan for designated routes or construction activities within road right-of-way in accordance with the Uniform Manual for Traffic Control Devices. Provide plans and drawings that detail construction details for installation of entrances, road crossings or right-of-way encroachment. Detail anticipated volume and routes for facility operational traffic.
 - D. Provide a Phase One Environmental Screening Report in accordance with industry standards.
 - E. Provide an accurate computer generated visual simulation from vantage points as agreed to by the developer and Seward County staff.
 - F. Provide a safety plan detailing expected public agency/emergency services support during emergencies.
 - G. Provide a certificate of insurance indicating coverage of General Liability of not less than \$500,000.00 per occurrence for contractors working within public right-of-way.
 - H. Provide a decommission plan and land reclamation detailing recovery or removal of structures and underground installation specific to the proposed method of assurance regarding maintenance and repair to public roads, bridges or culverts during decommission process.
 - I. The facility shall meet the following design requirements:
 1. Turbine blades shall have a minimum ground clearance of 40 feet at the lowest point of rotation and calculated for all directions.

2. Towers shall be setback from public roadways a minimum of one times the tip height plus 75 feet from the road centerline.
3. Towers shall be setback a minimum of 1,000 feet from existing residences.
4. Towers shall be setback from existing overhead utilities a minimum of one times the tip height plus 40 feet.
5. Towers shall be setback from adjoining property not under lease by the developer for the wind energy project a minimum of 500 feet from the nearest tip of the rotor to said property.
6. Electrical lines shall be installed underground, except for connection to transmission lines or factors related to culturally sensitive areas that dictate aboveground installation.

As can be seen from the above, there is no “standard” used by various counties within the State. The issue is to determine what the level of details Marion County wishes to see as part of the application for the Conditional Use Permit. I would only recommend that we keep our focus on the issues that are relevant to the “land use” aspects of the project.