11-26-18

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20.30.130 WFO district intent, effect on uses, and effect on standards.

A. *District Intent.* The wind farm overlay (WFO) district allows a wind farm as a permitted use in remote and otherwise appropriate regions of the County.

Application of District.

•This WFO district applies to parcels that, in combination, comprise a wind farm.

B. *Effect on Uses.* All permitted uses in the base zoning district are permitted as such in the WFO district. All special exception uses permitted in the base zoning district are permitted as such in the WFO. Additional permitted uses are listed as follows.

The following land uses shall be permitted in the WFO district:

•Wind farm

C. *Effect on Standards.* The development standards from the base zoning district shall apply to all non-wind farm improvements. The wind turbine standards for wind farms, in the wind farm overlay district, shall apply to all turbines and other improvements associated with the wind farm. [Ord. 12-27-11 § 3.13.]

20.30.140 WFO prerequisites.

A. *Base Zoning.* The base zoning for this overlay district to be applied to a lot shall be an A1, A2 or A3 district.

B. *Minimum Lot Size.* The minimum lot area for this overly district to be applied to a lot shall be ten (10) acres.

C. *Advisory Opinion.* The applicant shall obtain an advisory opinion from the Jasper County Board of Aviation Commissioners prior to filing for rezoning to apply the WFO district to any lot. [Ord. 12-27-11 § 3.14.]

D. Special Exception: The application for the WFO District to any lot does not relieve the requirement for a Special Exception for each utility-grade wind turbine location.

20.30.150 WFO district applicability.

The following requirements apply to all land within the WFO district as defined in JCC 20.30.160, WFO district boundary. Under no circumstances shall a planned development or rezoning of property change the applicability of the WFO district's land use restrictions and additional development standards. [Ord. 12-27-11 § 3.15.]

20.30.160 WFO district boundary.

The boundaries for the WFO district shall be any lot rezoned to apply this overlay and as shown on the official zoning map as a hatched or textured pattern and noted on the map legend as WFO district. [Ord. 12-27-11 § 3.16.]

20.30.170 WFO district development standards.

The base zoning district's development standards shall apply to all improvements except all structures and improvements associated with a wind farm development. The development standards for any structure or improvement associated with a wind farm development shall comply with the development standards in this wind farm overlay district.

A. *Permitted Systems.*

1. *Wind Turbines.* A wind farm may utilize horizontal axis and/or vertical axis utility-grade wind turbine systems.
2. *Meteorological Towers.* A wind farm may utilize one (1) or more meteorological towers prior to or after construction of utility-grade wind turbine systems.
3. *Rated Power Limits.* There shall be no limit on rated power for any single wind turbine system in a wind farm, nor for the gross energy production.

B. *Prerequisites.*

1. *Energy Production Purpose.* Wind farms shall be installed for the purpose of generating energy for distribution by a utility.
2. *Manufacturer Installation Specifications.* Any permitted utility-grade wind turbine system shall be installed according to the manufacturer's specifications unless in conflict with applicable standards in the Jasper County Unified Development Code. When conflicts exist, the following standards shall apply:
    a. *Manufacturer Specifications Are Stricter.* When the manufacturer's specifications are stricter than this chapter, the manufacturer's specifications shall be followed.
    b. *Zoning Standards are Stricter.* When this chapter is stricter than the manufacturer's specifications, this chapter shall prevail, and if that particular utility-grade wind turbine system cannot be adapted to meet the applicable regulations it shall be considered not permitted.

3. *Proof of Correspondence with Wildlife Agencies.*
    a. The applicant must submit written documentation that the applicant is in direct correspondence with the U.S. Fish and Wildlife Services, the Indiana

Department of Natural Resources, and any other applicable local, State and/or Federal wildlife agencies to demonstrate that the applicant is working with these agencies to identify required State or Federal regulations that govern the protection of wildlife species.

b. *Avian Impact Study and Analysis.* The applicant shall submit written documentation that the project is in compliance with all Federal and State wildliferegulations.

4. FAA permit application: A Federal Aviation Administration permit application.
   a. The applicant must submit written documentation that the applicant is in direct correspondence with the FAA.
5. Top Soil Preservation Plan: There shall be an installation plan approved by the Zoning Administrator that adequately preserves and provides for the restoration of topsoil for all staging and construction activities.

C. *Turbine System Limitations.*

1. Minimum Ratings. A utility-grade wind turbine system shall be manufactured to meet all applicable industry standards for manufacturing practices, safety, and connecting to the electrical grid.

2. Uniform Building Code. To the extent applicable, a utility-grade wind turbine system shall comply with the Indiana Uniform Building Code, as amended, and the regulations adopted by the State of Indiana.

3. Electrical Components. All electrical components for each utility-grade wind turbine system shall conform to relevant and applicable local, State, and national codes, and relevant and applicable international standards.

4. Minimum Certification. The design of each utility-grade wind turbine system shall conform to applicable industry standards, including those of the American National Standards Institute (ANSI) and the Underwriters Laboratories (UL) or equivalent international standard.

5. Experimental Turbines. A wind turbine system that does not meet the minimum ratings, Uniform Building Code, electrical components, or minimum certification standards shall be considered experimental and shall not be permitted.

D. *Supporting Structure.*

1. Tower Mounted. A horizontal axis utility-grade wind turbine system designed for tower mounting shall be mounted on a monopole. Lattice towers and towers with guy wires shall not be permitted.

2. Ground Mounted. All vertical axis utility-grade wind turbine system designed for ground mounting shall be mounted on the ground.

E. *Height Limitations.*

1. Tower Mounted. A utility-grade wind turbine shall comply with all applicable FAA requirements.

2. *Ground Mounted.* The maximum height of all components of a vertical axis ground mounted utility-grade wind turbine system shall be 150 feet.

F. *Maximum Number of Turbine Systems.*

1. *Wind Farms.* Any number of utility-grade wind turbine systems may be permitted within a wind farm.

2. *Ownership of Land.* Any number of participating land owner's property may be used for the wind farm.

3. *Ownership of Wind Farm.* All utility-grade wind turbine systems used by a wind farm shall be owned by a single entity.

G. *Wind Load.* A utility-grade wind turbine system shall be engineered to survive a 110 mph wind load or greater.

H. *Rotor Diameter.* No rotor diameter restrictions shall be applicable to utility-grade wind turbines.

I. *Location Restrictions.*

1. *Setback Measurements.* All measurements for setbacks between a structure and a wind turbine system shall be measured between the structure foundation and the center of the wind turbine system. All measurements between a property line and a utility-grade wind turbine system shall be measured from the center of any utility-grade wind turbine structure and the nearest property line of a property as defined.

2. *Utility-Grade Wind Turbine System Setbacks.*

a. *Setback From Property Line.* Each utility-grade wind turbine system shall be a minimum of ~~the rotor diameter~~ one and one-half (1.5) times the tip height of the turbine from any property line of a participating landowner (signed contract with Wind Company) and any on-site, above ground utility. ~~and~~ Each utility grade wind turbine system shall be located the greater of 2,640 feet or six and one-half (6.5) times the ~~hub~~ tip height of the turbine from any non-participating property line.

i. ~~*Property Line Setback Flexibility.* Utility-grade wind turbine systems within a wind farm may encroach into property line setbacks between two (2) participating owner's properties.~~

b. *Setback from Public Road, Railroad, or Above-Ground Utility.* Each utility-grade wind turbine system shall be a minimum distance of 1.1 times the tip height from any public road, railroad, or above-ground utility.

c. *Setback from On-site Buildings.* A utility-grade wind turbine system shall be required to be set back ~~1.1~~ one and one-half (1.5) times the tip height of the turbine from any on-site non-residential building, and two (2) times the ~~hub~~ Tip height of the turbine from any on-site residential building ~~primary structures~~.

d. *Setback from Off-site Land Uses.* A utility-grade wind turbine system shall be required to be set back:

i. A minimum of ~~1,000 feet~~ One ~~Two~~ (1) mile from any existing ~~single-family~~ non-participating residential dwellings, multiple-family residential dwellings, or institutional land use. The owner of an existing neighboring single-family dwelling unit may grant permission, in writing and recorded with the Jasper County Recorder, waiving the setback requirement to their home. However, under no circumstances shall a utility-grade wind turbine system be closer than ~~1.1~~ 2 two times the tip height to a ~~single family dwelling property line.~~

ii. A minimum of ~~1,000 feet~~ ~~Two (2)~~ One (1) mile from any existing land currently zoned R1, R2, VR, M1, M2 or IS ~~single family residential, multiple family residential or institutional zoning use~~.

iii. A minimum of ~~1,320 feet~~ one (1) ~~Two (2)~~ mile from any platted residential subdivision ~~with ten (10) or more lots.~~

iv. A minimum of ~~1,000 feet~~ 1.5 times the tip height from any non-participating private tile or drain.

v. A minimum of ~~two (2)~~ one (1) miles from the Iroquois and Kankakee rivers.

vi. A minimum of ~~two (2)~~ one (1) miles from any existing Confined Animal Feeding Operation. (subject to the waiver restrictions in 2.d.i.)

e. *Setback from Municipalities.* A utility-grade wind turbine system located within two (2) miles of the corporate limits of a city or town shall be permitted by said city or town.

f. *Setback from Jasper-Pulaski Fish and Wildlife Area* To protect the Jasper-Pulaski Fish and Wildlife Area., a "No Turbine Zone" is established for the area of Jasper County that lies north of County Road 400N and east of County Road 100W. No wind turbines are permitted in this area. ~~*Public Conservation Lands owned by State or local Governments.* A minimum if six (6) miles from, including, without limitation,~~

J. *Safety.*

1. *Ground Clearance.* The rotors (i.e., blades) of a horizontal axis utility-grade wind turbine system mounted on a tower shall not extend vertically to within thirty (30) feet of the ground.

2. *Anti-Icing Technology.* A utility-grade wind turbine system shall utilize best industry accepted standards for protecting against shedding of significant pieces of ice capable of damaging nearby buildings, public roads, railroads or above-ground utilities.

3. *Controls and Brakes.* A utility-grade wind turbine system in a wind farm shall be

equipped with a redundant braking system that includes both aerodynamic over speed controls (e.g., variable pitch, tip, and other similar systems) and mechanical brakes.

4. *Local Emergency Services.* The wind farm operator shall provide a copy of the as-installed site plan and specification to local emergency services. Upon request from local emergency services, the wind farm operator shall provide training to local emergency services for potential situations and shall prepare an emergency response plan for the wind farm. Any expenses in association with this training and planning shall be borne by the wind farm operator.

K. *Nuisance Prevention.*

~~1.~~ *Noise.* A utility-grade wind turbine system shall not generate more than ~~60 dBA modeled~~ thirty-five (35) ~~Fifty (50) decibels~~ (dBA) at a nonparticipating property line. ~~a residence. Noise analysis shall follow the ISO 9613-2 standards.~~

~~2.~~ *Illumination.* A utility-grade wind turbine system shall not be illuminated in any way unless required by Federal Aviation Administration (FAA) regulations. Compliance with FAA regulations shall be demonstrated to the Zoning Administrator prior to installation. The use of automated lighting technology to only turn on lights when an airplane is approaching.

~~3.~~ *Color.* A utility-grade wind turbine system shall be a nonintrusive color such as white, off-white, gray, earth tones, or similar non-reflective colors.

~~4.~~ *Signage.* No utility-grade wind turbine system shall be used to display a commercial message. All other sign standards shall be per applicable sign standards.

~~5.~~ *Signal Interference.* The wind farm operator shall make reasonable efforts to avoid any disruption or loss of radio, telephone, television, or similar signals, and shall mitigate any harm caused by the wind turbine system.

~~6.~~ Shadow Flicker: The flickering effect caused by sunlight combined with the turning of the rotor shall not be permitted on an off-site, non-participating property.

L. *Appurtenances.* A utility-grade wind turbine system shall not have any appurtenances (e.g., exterior lighting, wireless communication antennas, or ornamentation). Weather monitoring devices and safety equipment shall not be considered appurtenances.

M. *Public Inquiries and Complaints.*

1. *Contact Number.* The wind farm operator shall maintain a phone number and identify a responsible person for the public to contact with inquiries and complaints throughout the life of the project.

2. *Response to Injury and Complaints.* The wind farm operator shall make reasonable efforts to respond to inquiries and complaints raised by the public.

N. *Substation, Meteorological Tower, and Building.*

1. *Quantity.* Any quantity of substations, meteorological towers, or buildings may be

permitted if they provide a vital component to the wind farm operations.

2. *Setback from Property Line.* Any structures associated with a wind farm, excluding a utility-grade wind turbine system, feeder line, or transmission line, shall be a minimum of 100 feet from any property line, railroad, public road, single-family residence, or multiple-family residence. Meteorological towers shall also be subject to the same setback requirements as are applicable to a utility-grade wind turbine system.

3. *Maximum Height.*

   a. *Meteorological Tower.* A meteorological tower shall comply with all applicable FAA requirements.

   b. *Buildings.* A building associated with a wind farm operation shall not exceed 35 feet in height.

4. *Feeder Lines.* To the extent practicable, all feeder lines for the entire wind farm (e.g., between wind turbines and substations) shall be placed underground. All underground transmission lines shall be at a depth consistent with or greater than local utility and telecommunication underground lines standards, or as negotiated with the property owner, whichever is greater.

O. *Drainage*

1. *Drainage Tile.* Any private or public drainage tile or any county drain within ~~1,000 feet~~ 1.5 times tip height of any wind turbine location or other construction activities shall be inspected and scoped prior to and after completion of installation, at the expense of the operator. Any private or public drainage tile damaged or removed during the construction process shall be repaired or replaced with ~~a similar or better tile~~ updated plastic material approved by the County Surveyor. Any alterations to public tiles or drains must ~~be excluding drainage tile approved~~ have detailed profile and get approval by the County Drainage Board prior to alteration.

2. *Access Roads and Utility-Grade Wind Turbine Systems.* Any access road or utility-grade wind turbine system that may change the drainage on a construction site or adjacent property shall have its design reviewed by the County Drainage Board prior to issuance of a building permit. A building permit shall only be issued if the County Drainage Board approves a design for drainage first.

P. *Public Improvements and Repairs.*

1. *Street Capacity.* During construction, streets shall remain open at all times except for periods of time less than ten (10) minutes. Expected loss of capacity (i.e., temporary closures) greater than ten (10) minutes shall either require notice to neighboring and affected property owners twenty-four (24) hours prior to the temporary closure, shall require a detour to be established, or shall require personnel to redirect traffic to alternate routes during the temporary closure. Any necessary temporary closures and proposed detours shall be made known to the

Highway Department at least twenty-four (24) hours prior to the temporary closure or as otherwise agreed.

2. *Route ~~Restrictions~~ and transportation Planning:* The operator shall submit a transportation plan to the Highway Department that identifies all roads that will be used in the delivery. The Highway Department shall have the right to designate a primary route for heavy vehicles or to restrict heavy vehicle traffic on specific streets not able to support such loads. These restrictions may include seasonal restrictions. The designated routes assigned shall be utilized for all heavy ~~truck~~ traffic to and from each utility-grade wind turbine system.

3. *Pre-Construction Survey.* The applicant shall conduct a pre-construction ~~baseline survey~~ detailed profile showing the Commissioners & Drainage Board the route of anything being buried in County Rights-of-ways, acceptable to the Highway Superintendent to determine existing street conditions for assessing potential future damage. The survey shall include photographs, video, or a combination thereof, and a written agreement to document the condition of the public facility.

4. *Responsibility for Repair after Construction* Road Repairs. ~~The affidavit shall also state that the applicant understands that they are responsible for repairing and resurfacing streets back to their pre-construction condition if damaged by construction vehicles and heavy trucks.~~ Any road damage caused by the construction of project equipment, the installation of the same, or the removal of the same, shall be repaired to the satisfaction of the Jasper County Highway Superintendent and/or INDOT Superintendent. The superintendent may choose to require either remediation of road repair upon completion of the project or are authorized to collect fees for oversized load permits. Further, a corporate surety bond in an amount to be fixed by a professional engineer may be required by the superintendent to ensure the county that future repairs are completed to the satisfaction of the unit of local government. The cost of bonding is to be paid by the applicant.

5. *Significant Damage during Construction.* Any street damaged during construction that poses a risk to motorists, or that makes a street impassable for passenger vehicles, shall immediately have warning signs placed alongside the street, or barriers placed to block traffic. The damage shall then be repaired as soon as practicable. The determination of risk to motorists and/or impassibility shall be made by the County Highway Superintendent.

6. *Maintenance of Streets during Construction.* Any gravel or otherwise unimproved streets allowed to be utilized during construction shall be treated with calcium or other equally effective method to reduce dust, upon request by the Highway Department.

7. *Surety for Damages.* A surety (e.g., bond) shall be posted for the estimated cost

to repair and resurface all lineal feet of streets approved for use during construction. Any street damage caused by heavy equipment, heavy trucks, or the construction of the wind farm or the removal of the same, shall be repaired to the condition documented in the pre-construction baseline survey. The cost to repair and resurface all designated streets shall be calculated and certified by a professional engineer.

8. *Commitment to Avoid Disruptions.* In addition to a surety, the wind farm operator shall sign an affidavit indicating they will strive to avoid:

   a. Damage to streets;

   b. Unreasonable disruption of vehicular circulation around the development site; and

   c. Unreasonable disruption of power or other utility services to surrounding areas.

9. *Public Notice.* The wind farm operator shall identify all State highways and local streets to be used in the transport of equipment and parts for construction, operation, or maintenance of the wind farm. It shall also prepare a time line and phasing plan for construction, and identify any known street closures. This information shall be released to the local newspapers as notice to persons whom may be affected. This information shall also be conveyed to local law enforcement, emergency services, public school corporations, the United States Postal Service, and the regional office of the Department of Transportation.

10. As-Built Plans Requirement. Where upon completion of all development, the exact measurements of the location of utilities and structures erected during the development are necessary for public record and shall therefore be recorded. The applicant, owner, or operator shall submit a copy of the Final Construction Plans (as-built plans), as amended, to the Planning Administrator with the exact measurements thereon shown. The Planning Administrator, after being satisfied that the measurements are substantially the same as indicated on the originally approved final plan(s), shall approve, date and sign said Construction Plans for the project, which the applicant, owner, or operator shall then record.

Q. *Abandoned Systems.* Upon determination that one (1) or more utility-grade wind turbine system(s) has been discontinued, inoperable, or abandoned for eighteen (18) months or more, the owner shall provide the Zoning Administrator a timeline and detailed plan for demolition and removal of the utility-grade wind turbine system. The timeline for demolition shall indicate beginning the removal within four (4) months and completing the removal within one (1) year. For every five (5) utility-grade wind turbine systems that have to be removed, the completion date may extend one (1) additional month beyond the one (1) year completion date previously noted.

1. *Detailed Plan for Demolition.* The detailed plan for demolition shall include the

following:

a. A description of how the utility-grade wind turbine system will be demolished, disassembled, or otherwise removed from its location.

b. A description of where the components of the utility-grade wind turbine system and waste material (e.g., scrap metal or concrete) will be taken.

c. A description of a staging area or temporary location for contractors to base their operations. This shall also include any temporary improvements to the site.

d. A description of potential risks to life and property, on site and off site, and methods for mitigating those risks.

e. A description of which streets will be utilized and a detailed description of anticipated load size (i.e., dimension of trucks and components being moved off site) and anticipated gross weight and axle weight of trucks used to remove components, material, and other machinery. This shall also indicate the general timeline for each route to be in use.

f. A description of the hours for decommissioning and removal operations on any given day.

2. *Street Capacity.* During decommissioning and removal, streets shall remain open at all times except for periods of time less than ten (10) minutes. Expected loss of capacity (i.e., temporary closures) greater than ten (10) minutes shall either require notice to neighboring and affected property owners twenty-four (24) hours prior to the temporary closure, shall require a detour to be established, or shall require personnel to redirect traffic to alternate routes during the temporary closure. Any necessary temporary closures and proposed detours shall be made known to the Highway Department at least twenty-four (24) hours prior to the temporary closure or as otherwise agreed.

3. *Route Restrictions.* The Highway Department shall have the right to designate a primary route for heavy vehicles or to restrict heavy vehicle traffic on specific streets not able to support such loads. These restrictions may include seasonal restrictions. The designated routes assigned shall be utilized for all heavy truck traffic to and from each utility-grade wind turbine system.

4. *Responsibility for Repair after Decommissioning.* All damage to roads during decommissioning shall be repaired and resurfaced back to their pre-decommissioning condition if damaged by deconstruction vehicles and heavy trucks.

5. *Significant Damage during Decommissioning.* Any street damaged during decommissioning and removal that poses a risk to motorists, or that makes a street impassable for passenger vehicles, shall immediately have warning signs placed alongside the street, or barriers placed to block traffic. The damage shall then be

repaired as soon as practicable. The determination of risk to motorists and/or impassibility shall be made by the County Highway Superintendent.

6. *Maintenance of Streets during Decommissioning.* Any gravel or otherwise unimproved streets allowed to be utilized during construction shall be treated with calcium or other equally effective method to reduce dust, upon request by the Highway Department. [Ord. 12-4-17A §§ 1 – 7; Ord. 12-27-11 § 3.17.]

7. Surety for Damages Related to Decommissioning: The operator of any utility-grade wind turbine shall secure and provide a performance bond or submit an escrow deposit in the amount of $ 1,000,000 per turbine to ensure the proper decommissioning and removal of the turbine, as well as restoration of top soil prior to installation.

R. Fees

1. COMMERCIAL WECS, NON-COMMERCIAL WECS, MICRO-WECS, and Meteorological Towers As prescribed in the County's Official Schedule of Fees.

a. Commercial WECS
   $ 20,000.00 Special Exception application fee per wind farm
   $ 1,750.00 per mega watt per tower
b. Non-Commercial
   $ 300.00 per turbine
c. Micro-WECS
   $ 175.00 per turbine

2. Aggregated project: Applications will be assessed fees for each construction phase within a single project, as prescribed by the County's Official Fee Schedule.

7.14.3 Change in ownership It is the responsibility of the owner or operator listed in the application to inform the Area Plan Staff of all changes in ownership and operation during the life of the project, including the sale or transfer of ownership or operation.