

**ZONING RESOLUTION OF KNOX COUNTY
APPENDIX B – ARTICLE XX
KNOX COUNTY WIND ENERGY ORDINANCE**

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1.01 Title. This ordinance shall be known as the Knox County Wind Energy Ordinance-Appendix B-Knox County Zoning Resolutions

1.02 Authority....This ordinance is adopted pursuant to authority granted by ILCS Chapter 55 Counties 5-12 Zoning and Section 5/5-1063 Building Construction, Alteration, and Maintenance.

1.03 Purpose. The purpose of this Knox County Wind Energy Ordinance, Appendix B shall include but shall not be limited to the following: To divide all un-zoned areas of Knox County, Illinois, into districts; to regulate and restrict therein the location, erection, construction, reconstruction, alteration and use of buildings, structures and land, for industry, business, trade, residence and other uses; to regulate and restrict the height, number of stories, and size of all buildings; to regulate and restrict the density of population; to provide for the change and amendment of such regulations and boundaries of districts; to provide for a Board of Appeals; to provide for enforcement of said Resolution; to prescribe penalties for violation of the provisions hereof; and to repeal the Zoning Resolution of Knox County enacted on June 10, 1947, and all resolutions amendatory there to. This Knox County Wind Energy Ordinance, Appendix B does not repeal, abrogate, annul, impair, or interfere with any existing ordinance.

1.04 Applicability. This ordinance applies to all unincorporated lands within the boundaries of Knox County.

1.05 Definitions. In this ordinance:

1. "Board of Appeals" means the Knox County Zoning Board of Appeals
2. "Zoning Officer" means the Knox County Zoning Officer
3. "County Board" means Knox County Board
4. "County Engineer" means Knox County Engineer
5. "Zoning Department" means the Knox County Zoning Department
6. "Large Wind System" means a wind energy system that has a nameplate capacity of more than 50 kilowatts, a total height of more than 100 feet, a blade diameter of more than 30 feet, and one or more wind towers with turbines.
7. "Small Wind System" means a wind energy system that has a nameplate capacity of 50 kilowatts or less, a total height of 100 feet or less, a blade diameter of 30 feet or less, and one or more wind towers with turbines.
8. "Total Height" means the vertical distance from ground level to the tip of a wind turbine blade when the tip is at its highest point.
9. "Wind Energy System" means equipment that converts and then stores or transfers energy from the wind into usable forms of energy and includes any base, blade, foundation, generator, nacelle, rotor, tower, transformer, turbine, vane, wire or other component used in the system.

10. "Wind Farm System" means a wind energy system that includes two or more wind towers.
11. "Wind Tower" means a freestanding structure that supports a wind turbine generator.
12. "Comprehensive Plan" means Knox County Comprehensive Plan as amended.
13. "Zoning Ordinance" means Knox County Zoning Ordinance as amended.
14. "Structure" means anything constructed or erected, the use of which requires permanent location on the ground, and including, but not limiting the generality of the foregoing, advertising signs, billboards, backstops for tennis courts and pergolas. For purposes of this Zoning Resolution, the following shall not be considered structures: Driveways, sidewalks, patios, parking areas, basketball courts and tennis courts, ornamental or decorative structures such as light standards, flag poles, planters not exceeding two feet in height, fences and walls, trellises, mailboxes, bird houses and feeders, underground structures such as septic tanks, cisterns, wells, electric vaults and utility meters. (Effective Nov. 21, 2001)
15. "Wind Data Collection Tower" means any tower used to collect data on wind energy, prior to development of a wind energy system.
16. "Occupied Structure" means a building existing prior to the Conditional Use Application that is used for human habitation as a primary or secondary residence including public buildings such as schools, churches and offices.

1.06 Standards

1. Location:
 - (a) A large wind system may only be located in areas that are zoned F-Farming, C-Conservation, a M-Restricted Industrial, or M-2 Heavy Industrial District with a Conditional Use and Building Permits.
 - (b) A small wind system may be located in any Zoning Map District with a Conditional use permit and Building permits.
 - (c) A large wind system shall be located 1000 feet or more from a occupied structure on an adjoining property and 1.1 times total tower height or more from a occupied structure on subject property, measured from wind tower base.
 - (d) A small wind energy system shall be located 1.1 times total tower height or more from a occupied structure on adjoining property and 80% total tower height or more from a occupied structure on subject property measured from wind tower base.
 - (e) Wind data collection towers shall be located 1000 feet or more from a occupied structure on an adjoining property and 1.1 times total tower height or more from a occupied structure on subject property, measured from wind tower base.
2. Setbacks:

- (a) A small wind system must be set back from all property lines of the parcel on which it is located and from any right-of-way distance 1.1 times total tower height measured from the wind tower base.
 - (b) A large wind system must be set back a minimum distance of 1.1 times the total tower height from any and all public or private right-of-way lines measured from the wind tower base and must be set back a minimum distance of 100 feet from all property lines measured from the tip of the longest blade when located parallel with the ground unless a variance is approved by the board.
 - (c) Wind data collection towers must be setback a minimum distance of 1.1 times the total tower height from any and all public or private right-of-way lines measured from the wind tower base and must be set back a minimum distance of 100 feet from all property lines measured from the base.
3. Spacing and Density: A wind energy system shall be separated from any other wind energy system by a minimum of 200 feet measured from the tips of the blades when the blades are parallel with the ground.
 4. Construction: A wind energy system shall be of free standing construction
 5. Height: The total height of a wind energy system shall be of 500 feet or less.
 6. Clearance: The vertical distance from the ground level to the tip of a wind turbine blade when the longest blade is at its lowest point must be at least 25 feet.
 7. Access: Any wind tower located in a wind energy system, including any climbing aids, shall be secured against unauthorized access by means of a locked barrier or security fence.
 8. Electrical Wires: All electrical wires associated with a wind energy system, other than wires necessary to connect the wind turbines to its base and to overhead collection lines, shall be located underground unless a variance is approved by the board.
 9. Lighting: As required by the Federal Aviation Administration. Required lighting must comply with FAA minimum requirements and whenever possible be at the lowest intensity allowed using red lights at night. If more than one lighting alternative is available, the alternative that causes the least visual disturbance must be used.
 10. Equipment: Unless located underground, any electrical equipment associated with a wind energy system shall be located under the sweep area of a blade assembly unless a variance is approved by the board.

11. Appearance, Color and Finish: The exterior surface of any visible components of a wind energy system must be a non reflective neutral color. Wind towers and turbines in an established wind farm system that are located within 1000 feet of each other must be of uniform design, including tower type, color, number of blades and directions of blade rotation unless a variance is approved by the board.

12. Signs: No wind turbine, tower, building or other structure associated with a wind energy system must be used to advertise or promote any product or service. No word or graphic representation, other than appropriate warning signs and owner identification may be placed on a wind turbine, tower, building or other structure associated with a wind energy system so as to be visible from any public road.

1.07 Permit Requirements

- (1) Conditional Use Permit: A conditional use permit approved by the Knox County Board is required for each wind energy system.
- (2) Building Permit: A building permit is required for the installation of each wind energy system.
- (3) Expiration: A Conditional Use permit issued pursuant to this ordinance if:
 - (a) the wind energy system is not installed and functioning within 5 years from the date the permit is issued.
 - (b) the wind energy system is out of service or otherwise unused for a continuous 12-month period. The Zoning Board of Appeals may grant extensions to the 5 year and 12 month deadlines based on hardship conditions.
- (4) Fees:
 - (a) The application for a Conditional Use permit must be accompanied by the required fee of \$225.00 for each wind energy system.
 - (b) The application for a building permit must be accompanied by the required fee of \$25.00 per foot, based on the height of each wind tower, from the base to the top of the turbine motor, and required for each wind energy tower.
 - (c) A small wind energy system used for farming purposes is exempt from building fees only.
 - (d) A wind data collection tower is exempt from building fees only.
- (5) Financial Assurance:
 - (a) Reasonable evidence of financial ability to construct the wind energy system as determined by the County Board is a condition precedent to the issuance of any special use or building permit under this ordinance.
 - (b) Knox County and/or the property owner leasing land for a wind energy system may require a performance bond, surety bond, escrow account, letter of credit or other financial assurance to Knox County and/or property owner for each wind energy system that guarantees the performance of the restoration requirement set forth in Section 1.08

1.08 Restoration Requirement

- (1) A wind energy system that is out of service for a continuous 12-month period will be deemed to have been abandoned. The Zoning Officer may issue a Notice of Abandonment to the owner of a wind energy system that is deemed to have been abandoned. The Zoning Officer will withdraw the Notice of Abandonment if the Board approves an extension based on hardship conditions.
- (2) The owner of a wind energy system shall provide the Zoning Officer with a written Notice of Termination of Operations if the operation of a wind energy system is terminated.
- (3) Within 8 months of receipt of Notice of Abandonment or within 8 months of providing Notice of Termination of Operations, the owner of a wind energy system must:
 - (a) Remove all wind turbines, aboveground improvements, and outdoor storage;
 - (b) Remove all foundations, pads, and underground electrical wires to a depth of 4 feet below the surface of the surrounding ground; and
 - (c) Remove all hazardous materials from the property and dispose of the hazardous materials in accordance with federal and state law.
- (4) Failure to comply with any of the conditions or restrictions imposed on a conditional use permit shall be deemed a violation of the Zoning Ordinance.
- (5) All Zoning Officer determinations may be appealed to the Zoning Board of Appeals.

1.09 Conditional Use Permit Procedure

- (1) Conditional Use Permit Applications shall be submitted to the Zoning Officer. The application must be on a form approved by the Zoning Officer and must be accompanied by 2 copies of a scaled drawing and other descriptive information sufficient to enable the Board of Appeals to determine whether the requirements of this ordinance will be satisfied. The Zoning Officer will determine when the application is complete, and will then forward the application to the Knox Co. Board of Appeals.
- (2) The Board of Appeals will conduct a meeting and hearing on the application within 60 days after application submittal and minimum 15 day public notice.
- (3) The County Board may grant a special use permit if it determines that the requirements of this ordinance are met and that granting the permit will not unreasonably interfere with the orderly land use and development plans of the county.
- (4) Both the Board of Appeals and County Board may consider the following factors when setting conditions:
 - (a) Proposed ingress and egress
 - (b) Proximity to transmission lines to link the system to the electric power grid.
 - (c) Number of wind turbines and their location.
 - (d) Nature of land use on adjacent and nearby properties.
 - (e) Location of other wind energy systems in the surrounding area.
 - (f) Surrounding topography.
 - (g) Proximity to residential structures, residential zoning districts, or areas identified for future residential use.
 - (h) Design characteristics that may reduce or eliminate visual obtrusiveness.
 - (i) Possible adverse effects on migratory birds, raptors, and other animals and wildlife.
 - (j) Possible adverse effects of stray voltage, interference with broadcast signals, shadow effect, and noise.
 - (k) Impact on the orderly development, property values, and aesthetic conditions within the county.
 - (l) Recommendations of interested parties that may be affected by the wind energy system.
 - (m) Any other factors that are relevant to the proposed system.
- (5) The Board of Appeals may consider variances.

- (6) The Board of Appeals recommendations, finding of facts and conditions are forwarded to the County Board for final determination.
- (7) The County Board's decision to approve or reject the Conditional Use permit application may be appealed to the Circuit Court.

1.10 Building Permit Procedure

- (1) Building permit applications shall be submitted to the Zoning Officer. The application must be on a form approved by the Zoning Officer and must be accompanied by two copies of a drawing that shows the proposed location and distance of the wind energy system with reference to the property lines of the parcel on which it is located; and residence, business, or public building on an adjacent parcel; the right-of-way of any public road that is within 500 feet; and such other information as may be specified on the application form. Construction plans prepared and sealed by a structural engineer licensed to practice in Illinois stating and illustrating compliance with the Knox County Zoning Resolutions as amended.
- (2) The Zoning Officer will issue a building permit for a wind energy system if the application materials show that the proposed tower location meets the requirements of this ordinance, building code and the Conditional Use permit approved by the County Board.
- (3) If the application is rejected, the Zoning Officer will notify the applicant in writing and provide a written statement of the reason why the application was rejected.
- (4) The building permit must be conspicuously posted on the premises so as to be visible to the public at all times until construction or installation of the tower is complete.
- (5) All Zoning Officer determinations may be appealed to the Board.

1.11 Signal Interference

The owner of a wind energy system must take such reasonable steps as are necessary to prevent, eliminate or mitigate any interference with cellular, radio or television signals caused by the wind energy system.

1.12 County Highway and Township Agreements

Each wind energy system shall have a written agreement with County Engineer and respective Township Highway Commissioner (s) regarding the use of county/township road, bridges and right-of-way.

1.13 Wind Energy System Owner/County/Property Owner Restoration Agreement

Each wind energy system shall have a written agreement with Knox County and/or property owner regarding restoration requirements as discussed in this ordinance. Performance/surety bonds or other financial assurance documents may be required to guarantee restoration (decommissioning) before a building permit can be issued.

1.14 Violations

It is unlawful for any person to construct, install, maintain, modify or operate a wind energy system that is not in compliance with this ordinance or with any condition contained in a Conditional Use or Building Permit issued pursuant to this ordinance.

1.15 Administration and Enforcement

- (1) This ordinance shall be administered by the Zoning Officer.**
- (2) The Zoning Officer may enter any property for which a special use or building permit has been issued under this ordinance to conduct an inspection to determine whether the conditions stated in the permit have been met as specified by statute, ordinance and code.**

1.16 Penalties

- (1) Zoning – petty offense. Maximum \$500.00 fine with each week violation continues uncorrected constituting a separate offense. Building – petty offense. Maximum \$500 fine with each week violation continues uncorrected constituting a separate offense.**
- (2) Nothing in this section shall be construed to prevent the county from using any other lawful means to enforce this ordinance.**

1.17 Related Rules and Regulations

Each wind energy system shall comply with all applicable local, state and federal requirements.

1.18 Severability

The provisions of this ordinance are severable, and the invalidity of any section, paragraph, or other part of this ordinance shall not affect the validity or effectiveness of the remainder of the ordinance.

Reviewed and determined consistent with the Knox County Zoning Ordinances and recommended for approval by the Zoning Board of Appeals.

Chairperson _____ Dated:

Reviewed and approved by the Knox County State's Attorney

_____, **Knox Co. State's Attorney**

Date _____

Approved by the Knox County Board

Chairman _____ **Date** _____

County Clerk _____ **Date** _____

Rejected by the Knox County Board

Chairman _____ **Date** _____

County Clerk _____ **Date** _____