

CHAPTER 153: WIND ENERGY

Wind Farms

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WIND FARMS

§ 153.01 WIND ENERGY CONVERSION SYSTEMS PURPOSE.

- (A) To assure that any development and production of wind-generated electricity in the county is safe and effective; and
- (B) To facilitate economic opportunities for local municipalities, residents, and the county as a whole.

(Prior Code, 7 TCC 3-1)

§ 153.02 DEFINITIONS.

For the purpose of this subchapter, the following definitions shall apply unless the context clearly indicates or requires a different meaning.

AUTHORIZED FACTORY REPRESENTATIVE. An individual with technical training of a WECS who has received factory installation instructions and is certified in writing by the manufacturer of the WECS.

FACILITY ABANDONMENT. A period of time not less than one year.

MANUAL AND AUTOMATIC CONTROLS. Give protection to power grids and limit rotation of a WECS' blades to below the designed limits of the conversion system.

REGISTERED PROFESSIONAL ENGINEER. Any appropriately trained and experienced engineer licensed by the State of Illinois.

WIND ENERGY CONVERSION SYSTEM (WECS). Any device such as a wind charger, windmill, or wind turbine that converts wind energy to a form of usable electrical energy.

(Prior Code, 7 TCC 3-2)

§ 153.03 REQUIREMENTS.

- (A) *Design safety certification.* The safety of the design of all WECS towers shall be certified by a registered professional engineer. The standard for certification shall be good engineering practices and shall conform to all the county's officially adopted codes.
- (B) *Controls and brakes.* All WECS projects shall be equipped with manual and automatic controls and mechanical brakes to limit rotation of blades to a speed below the designed limits of a WECS. The registered professional engineer or authorized factory representative must certify that the rotor and overspeed control design and fabrication conform to good engineering practices. No changes or alterations from certified design shall be permitted unless accompanied by a registered professional engineer's or the authorized factory representative's statement of certification.
- (C) *Electrical components.* All electrical compartments, storage facilities, wire conduit, and interconnections with utility companies will conform to local utility standards and national and local electrical codes.

- (D) *Color, towers and blades.* Any non-reflective, unobtrusive color that will assist in mitigating the visual impact of the structure is allowable.
- (E) *Lighting.* Lighting for the towers shall be constructed only in accordance with the minimum requirements and standards allowed through the FAA or other regulatory authority in an effort to minimize the visual impact of the structures.
- (F) *Compliance with FAA.* It shall be the responsibility of the person in charge of the WECS project to complete the proper FAA applications and obtain the proper permits for the WECS project. It shall also be the responsibility of the person in charge of the WECS project to obtain a determination of no significant impact to air navigation from the FAA.
- (G) *Warnings.* A visible warning sign of "high voltage" must be placed at the base of all WECS projects. The sign must have at a minimum six-inch letters. Such signs shall be located a maximum of 300 feet apart and at all points of site ingress and egress.
- (H) *Climb prevention.* All WECS project towers or poles must be unclimbable by design or protected by anti-climbing devices such as:
 - (1) Fences with locking portals at least six feet high;
 - (2) Anti-climbing devices 12 feet from base of pole; or
 - (3) Anchor points for guy wires supporting tower shall be enclosed by a six-foot high fence or shall be located within the confines of a yard that is completely fenced.
- (I) *Compliance with zoning laws.* All WECS projects shall be in compliance with all local zoning laws.
- (J) *Setbacks.*
 - (1) All WECS towers shall be set back at least 750 feet from any adjoining property's dwelling unit, and no less than one and one-tenth times the tower height from the applying property owner's dwelling structure.
 - (2) All WECS towers shall be set back a distance of at least one and one-tenth times the WECS tower height from public roads, third party transmission lines, and communications towers.
 - (3) All WECS towers shall be set back a distance of at least one and one-tenth times the WECS tower height from adjacent property lines. Property lines that are shared with other properties included in the same WECS development may forgo this requirement, provided written acceptance of this waiver is obtained from all affected property owners prior to the public hearing.
 - (4) Any waiver of any setback requirement shall run with the land and be recorded as part of the chain of title in the deed of the subject property.
- (K) *Height.* Wind generator machine height must comply with all FAA regulations.
- (L) *Compliance with additional regulations.* It shall be the responsibility of the person in charge of the WECS project to contact the FCC and FAA regarding additional permits necessary or any other applicable federal or state regulations for the installation of a WECS project prior to the County Zoning Board of Appeals granting a special use permit.
- (M) *Installation certification.* The registered professional engineer shall certify that the construction and installation of the WECS project meets or exceeds the manufacturer's construction and installation standards.
- (N) *Roads.*
 - (1) Any proposed access roads that will be used for construction purposes shall be identified and approved by the Township Road Commissioner and the County Engineer prior to the granting of the special use permit.
 - (2) Any road damage caused by the transport of the facility's equipment, the installation, or the removal must be completely repaired to the satisfaction of the Township Road Commissioner and the County Engineer.

The Township Road Commissioner and County Engineer 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 the Township Road Commissioner or the County Engineer may be required by the Township Road Commissioner or the County Engineer to ensure the township or the county that future repairs are completed to their satisfaction.

- (O) *Migratory birds.* An avian study shall be conducted by a qualified third-party professional, such as an ornithologist or wildlife biologist, to determine if there is any potential impact the WECS project may present to migratory birds. The study must provide assurances that the WECS project does not negatively impact the path of migratory birds. The results of the study shall be made available at the official public hearing.

(Prior Code, 7 TCC 3-3) (Amendment #25, 2/08) Penalty, see § [10.99](#)

§ 153.04 MAINTENANCE AND OPERATION.

- (A) *Annual inspection.* Every WECS project must be inspected annually by an authorized factory representative to certify that it is in good working condition and not a hazard to the public.
- (B) *Interference.* If the authorized factory representative determines that the WECS project causes severe interference with microwave transmissions, residential television interference, or radio reception, the WECS owner must take commercially reasonable steps to correct the problem.
- (C) *Fire risk.* All WECS projects must adhere to all applicable electrical codes and standards and must remove fuel sources, such as vegetation, from the immediate vicinity of electrical gear and connections. Every WECS project must utilize twistable cables on turbines.
- (D) *Waste.* All solid wastes, whether generated from supplies, equipment parts, packaging, operation or maintenance of the WECS, including old parts and equipment, shall be removed from the site immediately and disposed of in an appropriate manner. All hazardous waste generated by the operation and maintenance of the WECS including, but not limited to, lubricating materials, shall be removed from the site immediately and disposed of in a manner consistent with all local, state, and federal rules and regulations.

(Prior Code, 7 TCC 3-4) Penalty, see § [10.99](#)

§ 153.05 NOISE LEVELS.

Noise levels shall be regulated by the state's Pollution Control Agency rules and regulations and the applicant shall certify that applicant's facility is in compliance with the same.

(Prior Code, 7 TCC 3-5) Penalty, see § [10.99](#)

§ 153.06 LIABILITY INSURANCE.

The WECS project shall maintain a current insurance policy to cover installation and operation of the WECS project. The amount of the policy shall be established as a condition of permit approval.

(Prior Code, 7 TCC 3-6)

§ 153.07 DECOMMISSIONING PLAN.

- (A) The WECS project must contain a decommissioning plan to ensure it is properly decommissioned upon the end of the project life or facility abandonment. Decommissioning shall include: removal of all structures (including transmission equipment and fencing) and debris to a depth of four feet; restoration of the soil; and restoration of vegetation within six months of the end of project life or facility abandonment.
- (B) The decommissioning plan shall state how the facility will be decommissioned, the professional engineer's estimated cost of decommissioning, the financial resources to be used to accomplish decommissioning, and the escrow agent with which the resources shall be deposited. The decommissioning plan shall also recite an agreement between the applicant and the county that:
 - (1) The financial resources for decommissioning shall be in the form of a surety bond, or shall be deposited in an escrow account with an escrow agent acceptable to the Zoning Enforcement Officer;

- (2) A written escrow agreement will be prepared, establishing upon what conditions the funds will be disbursed;
- (3) The county shall have access to the escrow account funds for the expressed purpose of completing decommissioning if decommissioning is not completed by the applicant within six months of the end of project life or facility abandonment;
- (4) The county is granted the right of entry onto the site, pursuant to reasonable notice, to effect or complete decommissioning;
- (5) The county is granted the right to seek injunctive relief to effect or complete decommissioning, as well as the county's right to seek reimbursement from applicant or applicant successor for decommissioning costs in excess of the amount deposited in escrow and to file a lien against any real estate owned by applicant or applicant's successor, or in which they have an interest, for the amount of the excess, and to take all steps allowed by law to enforce said lien; and
- (6) Financial provisions shall not be so onerous as to make wind power projects unfeasible.

(Prior Code, 7 TCC 3-7)

§ 153.08 FEES CHARGED FOR BUILDING PERMIT.

- (A) The fees for processing of the building permit applications for a WECS shall be collected by the Community Development Administrator who shall be accountable to the county for such fees. Each turbine: \$20 per foot of total height (including blades).
- (B) WECS are permitted only in the A-1 and A-2 zoning districts by special use upon approval by the County Zoning Board of Appeals.

(Prior Code, 7 TCC 3-8)