

ARTICLE 13. WIND ENERGY CONVERSION SYSTEMS

4-1301. REGULATIONS. No person shall erect or use within the city, a wind energy conversion system (WECS) without first obtaining a permit from the city to do so.

(a) Wind energy conversion system (WECS) means any device or combination of devices, including but not limited to wind charges, windmills and wind turbines, which converts wind energy into another usable form of energy; the term shall include all associated support structures and transmission lines.

(b) Any application for a permit pursuant to this article shall comply with or include the following:

(1) A site plan accurately depicting the location of the proposed WECS in relation to all buildings and utility lines on or within 200 feet of the proposed site, including distances from the proposed WECS to all such buildings, utility lines and site boundaries.

(2) An engineering drawing of the WECS accurately depicting its design and dimensions, including the support tower and any associated fences, guy wires or other supports.

(3) Compliance with National Electric Code. Building permit applications shall be accompanied by a line drawing identifying the electrical components of the wind system to be installed in sufficient detail to allow for a determination that the manner of installation will conform to the currently adopted National Electrical Code. The application shall include a statement from a registered professional engineer indicating that the electrical system conforms with good engineering practices and complies with the National Electrical Code. All equipment and materials shall be used or installed in accordance with such drawings and diagrams. An electrical permit is required.

Where the electrical components of an installation vary from the standard design or specifications, the proposed modifications shall be reviewed and certified by a registered professional engineer for compliance with the requirements of the National Electrical Code and good engineering practices.

(4) Certification together with resulting data pertaining to the operation, safety, noise and potential interference with television, radio or communication reception, by the proposed WECS.

(5) Certification by a licensed professional structural engineer that:

(a) The technical and dimensional data included in the application is accurate.

(b) That the proposed WECS is structurally adequate to withstand foreseeable natural phenomena.

(c) That the tower and top adapter will withstand minimum horizontal thrusts of 900 pounds, and that the tower and generator are compatible.

(d) Rotor Safety. Each wind energy conversion system must be equipped with both manual and automatic controls to limit the rotational speed of the blade below the design limits of the rotor. The application must include a statement by a registered professional engineer certifying that the rotor and over speed controls have been designed and fabricated for the proposed use in accordance with good engineering practices. The engineer shall also certify the structural compatibility of possible towers with available rotors.

(e) That it in all respects conforms to the requirements set forth in this article.

(C) Placement.

(1) No WECS shall be located in required front or side yard.

(2) No WECS shall be located closer to the boundary line of the site than the height of the proposed tower plus rotor diameter. No WECS shall be higher than 2 the width of the narrowest dimension of the tract plus 10 feet.

(3) No WECS shall be erected nearer to an existing WECS than 75 feet or a distance equal to five times the diameter of the larger rotor, whichever is greater distance.

(4) The minimum height of the lowest part of the rotor shall be either 30 feet above the highest structure allowed under the district zoning requirement or potential tree height, whichever is higher, if it is within 300 feet. Airport approach and departure zones shall be considered in determining location and height of WECS placement.

(D) Guy Wires. Anchor points for guy wires for the WECS tower shall be located within site line and not on or across any above-ground electric transmission or distribution line.

(E) So as not minimize unauthorized access, every WECS tower shall be surrounded by a fence six feet in height, with a locking gate, which gate shall be kept locked at all times. Further, no such tower shall be equipped with any climbing apparatus less than 12 feet above grade. A sign with the following wording: "Caution, High Voltage," letters to be in red four inches in height with red border on white background, installed securely on the gate to tower.

(F) Any WECS which is interconnected with a public utility system shall at all times meet such utility's then-current requirements for interconnection and operation. Service entrance wire from generator to house or building shall be adequate to carry 100 ampere current.

(G) Prior to issuance of a permit for construction of any WECS, and annually thereafter, the owner shall furnish to the city building official a certificate evidencing insurance against any loss or injury to persons or property resulting from installation or operation of such WECS in the following amounts: Each occurrence \$100,000; aggregate \$300,000.

(H) No WECS shall be erected or used that does not comply with the above requirements or thereafter that becomes inoperable or fails to conform to the requirements hereof. Any WECS which is not repaired within 30 days shall be removed within 30 days thereafter. (Ord. 784, Sec. 1)

4-1302. PERMITS. Permits granted hereunder shall expire if the WECS is not complete within six months following issuance of the permit. An extension may be granted upon application to the building official. (Ord. 784, Sec. 2)

4-1303. FEES. The fee for a WECS permit shall be \$15 per WECS. The fee shall be accompanied by all plans and specifications as designated within. (Ord. 784, Sec. 3)