

**CITY OF ARLINGTON
ORDINANCE NO. 212**

**AN ORDINANCE AMENDING THE ARLINGTON ZONING ORDINANCE (ORDINANCE 169) BY
ADDING SECTION 13, SUBD. 7 RELATING TO WIND ENERGY CONVERSION SYSTEMS (WECS)**

THE CITY COUNCIL OF THE CITY OF ARLINGTON ORDAINS AS FOLLOWS:

Section 1

Section 13 of the Arlington Zoning Ordinance (Ordinance 169) shall be amended to include Subdivision 7 as follows:

SUBDIVISION 7. WIND ENERGY CONVERSION SYSTEMS (WECS)

1. *The purpose of this Section is to establish standards and procedures by which the installation and operation of commercial and non-commercial wind energy conversion systems (WECS) shall be governed within the City.*
2. *Ornamental wind devices that are not a WECS shall be exempt from the provisions of this Section.*
3. *Definitions:*
 - A. *Commercial Wind Energy Conversion System (WECS): A WECS of equal to or greater than 40kW in total nameplate generating capacity.*
 - B. *Feeder Line: A power line that carries electrical power from one or more wind turbines or individual transformers associated with individual wind turbines to the point of interconnection with the electrical power grid, in the case of interconnection with the high voltage transmission systems the point of interconnection shall be the substation servicing the WECS.*
 - C. *Meteorological Tower: Towers erected to measure wind speed and direction plus other data relevant to siting WECS. Meteorological towers shall be regulated as commercial towers under Ordinance 196 relating to Telecommunication Towers, Antennas and Related Facilities, as may be amended.*
 - D. *Non-commercial WECS: A WECS of less than 40kW in total name plate generating capacity.*
 - E. *Rotor Diameter: The diameter of the circle described by the moving rotor blades.*
 - F. *WECS Tower: A vertical structure that supports an electrical generator, rotor blades, and/or meteorological equipment used in the operation of a WECS.*
 - G. *WECS Total Height: The highest point above ground reached by a rotor tip or any other part of the WECS.*
 - H. *WECS Tower Height: The total height of the WECS exclusive of the rotor blades.*
 - I. *Wind Energy Conversion System (WECS:) An electrical generating facility comprised of one or more wind turbines and accessory facilities, including but not limited to: power lines, transformers, substations, and meteorological towers, that operate by converting the kinetic energy of wind into electrical energy. The energy may be used on-site or distributed to the electrical grid.*

J. *Wind Turbine: Any piece of electrical generating equipment that converts the kinetic energy of blowing wind into electrical energy through the use of airfoils or similar devices to capture the wind.*

4. *Conditional Use Permit Required.*

A. *The erection of a wind energy conversion system shall require a conditional use permit, as prescribed by Section 15 of the Arlington Zoning Ordinance.*

B. *Commercial wind energy conversion systems shall only be allowed as conditional uses within Industrial Districts or on property owned by the City of Arlington or the Arlington EDA.*

C. *Non-commercial wind energy conversion systems shall be allowed as conditional uses within the R1/AG-R2/AG Residence & Agricultural District on lots at least ten (10) acres in area. The acreage restriction is required to protect WECS from encroachment by other uses or structures and to accommodate required setback between the WECS and property lines.*

D. *All applications for a WECS conditional use permit shall be accompanied by a site plan drawn to scale and dimensioned displaying following:*

1) *The names of project applicants and property owners.*

2) *Project address and legal description.*

3) *A description of the project including: nameplate generating capacity, proposed tower height, and proposed rotor diameter.*

4) *Proposed site layout.*

5) *Engineer's certification of structure design, electrical design, and fall zone.*

6) *Location and height of all existing and proposed buildings, structures, above ground utilities, and trees on the lot, including both existing and proposed structures and guy wire anchors.*

7) *Location and height of all adjacent buildings, structures, aboveground utilities and trees located within three hundred fifty (350) feet of the exterior boundaries of the property in question.*

8) *An elevation drawing of the premises accurately depicting the proposed WECS and its relationship to structures on the subject site and adjacent lots.*

9) *A written statement or map describing how the proposed structure relates to existing arrival/departure corridors utilized by air ambulances.*

10) *In addition, applications for commercial WECS shall include:*

a. *An FAA permit application, if required.*

b. *A decommissioning plan.*

5. *Performance Standards:*

A. *A WECS shall not interfere with hospital heliport approach/departure corridors as defined by the Minnesota Department of Transportation.*

- B. *Setbacks.*
- 1) *No part of a WECS (including guy wire anchors) shall be located within or above any required front, side, or rear yard setback.*
 - 2) *WECS towers shall be setback from all property lines a total of 110% of the WECS total height.*
- C. *Blade arcs created by the WECS shall have a minimum of thirty (30) feet of clearance over any structure or tree.*
- D. *Each WECS shall be equipped with both a manual and automatic braking device capable of stopping the WECS operation in high winds (40 miles per hour or greater).*
- E. *Each WECS shall be grounded to protect against natural lightning strikes in conformance with the National Electrical Code as adopted by the City. To prevent unauthorized climbing, WECS towers must comply with one of the following provisions:*
- 1) *Tower climbing apparatus shall not be located within twelve (12) feet of the ground.*
 - 2) *A locked anti-climb device shall be installed on the tower.*
 - 3) *Towers capable of being climbed shall be enclosed by a locked, protective fence at least six (6) feet high.*
- F. *WECS shall have a sign posted at the base of the tower containing the following information: A high voltage warning, the manufacturer's name, an emergency phone number, and emergency shutdown procedures.*
- G. *WECS shall not have affixed or attached any lights, reflectors, flashers, or any other illumination, except for illumination devices required by FAA regulations or as required by the City if within heliport arrival or departure corridors as defined by the Minnesota Department of Transportation.*
- H. *WECS shall be designed and constructed so as not to cause radio and television interference.*
- I. *Noises emanating from the operation of WECS maintain compliance with Minnesota Pollution Control Standards.*
- J. *No WECS shall be interconnected with a local electrical utility company until the utility company has reviewed and commented on it.*
- K. *Standard drawings of the structural components of the wind energy conversion system and support structures, including base and footings shall be provided along with engineering data and calculations to demonstrate compliance with the structural design provisions of the Building Code. Drawings and engineering calculations shall be certified by a Minnesota licensed engineer.*
- L. *WECS electrical equipment and connections shall be designed and installed in adherence to the Electrical Code.*
6. *If a WECS is not maintained in operational condition and poses a potential safety hazard, the owner shall take expeditious action to correct the situation.*
7. *Any WECS or tower which is not used for twelve (12) successive months shall be deemed abandoned and shall be dismantled and removed from the property at the expense of the property owner.*

Section 2

Effective Date: This Ordinance is effective upon its adoption and publication as prescribed by law.

Adopted by the City of Arlington on the 22nd day of January, 2009.

Attest:

James R. Kreft, Mayor

Matthew Jaunich, City Administrator

First Reading: January 5, 2009
Second Reading: January 22, 2009
Adopted: January 22, 2009
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