

BILL NO. ____

ORDINANCE NO. 2009-_____

AN ORDINANCE AMENDING _____ MUNICIPAL CODE TITLE 18, ZONING, CHAPTER 18.03, DEFINITIONS, SECTION 18.03.010, WORDS AND TERMS DEFINED, TO MODIFY THE DEFINITION OF “WIND ENERGY/CONVERSION FACILITY” TO “WIND ENERGY CONVERSION SYSTEM, PRIVATE USE” AND TO ADD A DEFINITION FOR “WIND TURBINE”; AND AMENDING THE _____ MUNICIPAL CODE TITLE 18 ZONING, CHAPTER 18.05, GENERAL PROVISIONS, BY ADDING SECTION 18.05.080, PRIVATE USE WIND ENERGY CONVERSION SYSTEMS TO SET FORTH SPECIFIC STANDARDS AND CRITERIA FOR THESE SYSTEMS; AND OTHER MATTERS PROPERLY RELATED THERETO.

Fiscal effect: None

THE BOARD OF SUPERVISORS OF _____ DO ORDAIN:

SECTION I:

That Chapter 18.03 (Definitions), Section 18.03.010 (Words and Terms Defined) of the _____ Municipal Code is hereby amended, in part, to modify the definition of “Wind Energy/Conversion Facility” and to add a definition for “Wind Turbine”, as follows:

Wind Energy Conversion System, Private Use means a system consisting of a wind turbine, tower, and associated control or conversion electronics for the purpose of providing electrical power to a lawful principle use. A system having a rated capacity of 10 kilowatts (kW) or less for residential use or 100 kW or less for non-residential uses shall be considered a private use system for the purposes of the regulations. These systems are considered accessory uses in all zoning districts.

Wind Turbine. The individual component of a Wind Energy Conversion System that converts kinetic energy from the wind into electrical energy, independent of the electrical conductors, electrical storage system, electrical metering, or electrical inverters.

SECTION II:

That the _____ Municipal Code Chapter 18.05, General Provisions, Section 18.05.080, Private Use Wind Energy Conversion Systems, is hereby added, as follows:

18.05.080 Private Use Wind Energy Conversion Systems. In order to balance the need for clean, renewable energy resources with the protection of the health, safety and welfare of the community, the purpose of this section is to regulate private use wind energy conversion systems (WECS) for the production of electricity for use on the subject site and for net metering through the power company.

1) **Applicability and Definition.**

- a. **Private Use Wind Energy Conversion Systems (WECS).** A private use wind energy conversion system consists of a wind turbine, tower, and associated control or conversion electronics for the purpose of providing electrical power to a lawful principle use. A system having a rated capacity of 10 kilowatts (kW) or less for residential use or 100 kW or less for non-residential uses shall be considered a private system for the purposes of these regulations. WECS are considered accessory uses as stated in _____ 18.03.010 (Words and Terms Defined), Accessory Building or Accessory Structure and Accessory Use, and are allowed in all zoning districts.
- b. **Wind Turbine.** The individual component of a Wind Energy Conversion System that converts kinetic energy from the wind into electrical energy, independent of the electrical conductors, electrical storage system, electrical metering, or electrical inverters. This term shall include the towers or supporting structures.
- c. **Building Code(s).** All codes, ordinances, policies and procedures, and standards adopted and enforced by the _____ Building Division.
- d. **Fire Code(s).** All codes, ordinances, policies and procedures, and standards adopted and enforced by the _____ Fire Department.
- e. **FAA.** The use of this acronym shall denote the Federal Aviation Administration, or any other applicable authority that regulates air safety within the _____ jurisdiction.
- f. Private use wind energy conversion systems shall be allowed as accessory uses in all Public zoning districts without the requirement of Special Use Permit approval provided the system meets all other requirements of this section.
- g. All proposed Private Use Wind Energy Conversion Systems located within the _____ Historic District must receive review and approval from the Historic Resources Commission, in addition to any other required approvals, prior to submission of a building permit.

2) **Standards.** All Wind Energy Conversion Systems are subject to and must comply with the following provisions of this section:

- a. **Setbacks.** Minimum setbacks for private use wind turbines shall be:
 - i) A minimum of 0.5 times the total extended height from the project property lines adjacent to a residential, Conservation Reserve or Agricultural zoning district.
 - ii) Guy wire anchors may not extend closer than 10 feet from any property line.
 - iii) A 10 foot minimum setback from any part of the turbine, rotors or guy wires to the property line of any other non-residential zoning district.
- b. **Number per parcel.** A maximum of two wind turbines per parcel are permitted on parcels less than one-half acre in size; a maximum of four wind turbines per acre are permitted on parcels greater than one-half acre in size.
- c. **Height.** The maximum total extended height of Wind Energy Conversion Systems is 70 feet.

- i) Tower Height shall mean the height above adjacent grade of the fixed portion of the tower, excluding the wind turbine itself.
 - ii) Total Extended Height shall mean the height above adjacent grade to a blade tip at its highest point of travel and including any other portion of the Wind Energy Conversion System.
- d. **Lighting.** Wind system towers shall not be artificially lighted unless required, in writing, by the Federal Aviation Administration (FAA) or other applicable authority that regulates air safety. Where the FAA requires lighting, the lighting shall be the lowest intensity allowable under FAA regulations; the fixtures shall be shielded and directed to the greatest extent possible to minimize glare and visibility from the ground; and no strobe lighting shall be permitted, unless expressly required by the FAA.
- e. **Access.** All wind turbine towers must comply with the following provisions:
- i) The tower shall be designed and installed so that there shall be no exterior step bolts or a ladder on the tower readily accessible to the public for a minimum height of 12 feet above the ground. For lattice or guyed towers, sheets of metal or wood or other barrier shall be fastened to the bottom tower section such that it cannot readily be climbed; and
 - ii) All ground-mounted electrical and control equipment shall be labeled or secured to prevent unauthorized access.
- f. **Rotor Safety.** Each wind turbine shall be equipped with both manual and automatic controls to limit the rotational speed of the blade within the design limits of the rotor. An external, manual shut-off switch shall be included with the installation. The minimum distance between the ground and any protruding blades utilized on a private wind turbine shall be 10 feet as measured at the lowest point of the arc of the blades.
- g. **Noise.** All wind turbines shall comply with the noise requirements in this section. These levels may not be exceeded at any time, including short-term events such as utility outages and severe wind storms. A manufacturer's sound report shall be required with a building permit application.
- i) No wind turbine or combination of wind machines on a single parcel shall create noise that exceeds a maximum of 35 decibels (dBA) at any property line where the property on which the wind machine is located or the abutting property is less than one acre or a maximum of 50 decibels (dBA) at any other property line. Measurement of sound levels shall not be adjusted for, or averaged with, non-operating periods. Any wind turbine(s) exceeding these levels shall immediately cease operation upon notification by _____ and may not resume operation until the noise levels have been reduced and verified by an independent third party inspector, approved by _____, at the property owner's expense. Upon review and acceptance of the third party noise level report, _____ will allow operation of the affected wind turbine(s). Wind Energy Conversion System(s) unable to comply with these noise level restrictions shall be shut down immediately and removed upon notification by _____, after a period established by _____.

h) **Aesthetics and Maintenance.**

i) **Appearance.** Wind turbines, unless subject to any applicable standards of the FAA, shall be a non-obtrusive color such as tan, sand, gray, black or similar colors. Galvanized steel or metal is acceptable for the support structures. The painting or coating shall be kept in good repair for the life of the wind turbine. In addition, any changes to the approved color shall result in notification by _____ that the affected wind turbine(s) shall cease operation until a color correction has been made. If the affected wind turbine(s) are not repainted, using an approved color, within the period established by _____, the owner shall remove the affected Wind Energy Conversion System(s).

ii) **Electrical Wires.** All electrical wires leading from the tower to electrical control facilities shall be located underground.

iii) **Maintenance.** Wind turbines shall be maintained in good repair, as recommended by the manufacturer's scheduled maintenance or industry standards.

i. **Signs/Labels.** The only advertising sign allowed on the wind turbine shall be a manufacturer's label, not exceeding one square foot in size.

j. **Compliance with FAA Regulations.** All wind turbines shall comply with applicable FAA regulations, including any necessary approvals for installations.

k. **Certified Safe.** Evidence shall be submitted with a building permit application that the wind machine has been constructed in accordance with accepted industry standards and certified safe.

3) **Repair and Removal of Wind Turbines.** Any wind turbine found to be unsafe by an official of the _____ Building Division shall immediately cease operation upon notification by _____ and shall be repaired by the owner to meet federal, state, and local safety standards or be removed within six months. Wind turbines that are not operated for a continuous period of 12 months shall be removed by the owner of the wind turbine.

a. When a wind turbine is removed from a site, all associated and ancillary equipment, batteries, devices, structures or support(s) for that system shall also be removed. For the purposes of this section, non-operation shall be deemed to include, but shall not be limited to, the blades of the wind turbine remaining stationary so that wind resources are not being converted into electric or mechanical energy, or the wind turbine is no longer connected to the public utility electricity distribution system.

4) **Mounting of Wind Turbines.** Attachment of the wind turbine, including any support or structural components, to any building or structure shall be in strict compliance with regulations of the _____ Building Division.

5) **Compliance with Regulations.**

a. All systems shall comply with applicable fire and building codes.

b. All standards are absolute. Once wind turbines are permitted, the owners have the option of compliance with the standards or discontinuation of operations. If the operation of the wind turbine(s) does not comply with the provisions of this article, the operator

shall promptly take all measures necessary to comply with these regulations, including, but not limited to, discontinued operation of one or more wind turbines.

- c. Variations to the regulations and standards of this section may only be permitted by special use permit, approval of which shall be pursuant to Title 18, Section 18.02 (Special Use Permits).

SECTION III:

No other provisions of Title 18 of the _____ Municipal Code are affected by this ordinance.

PROPOSED on _____, 2009.

PROPOSED BY Supervisor _____

PASSED _____, 2009.

VOTE:

AYES: _____

NAYS:

ABSENT:

Mayor

ATTEST:

Clerk-Recorder

This ordinance shall be in force and effect from and after the _____ day of the month of _____ of the year 2009.