

TITLE V

CHAPTER 5 SMALL WIND ENERGY SYSTEMS

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5-5-1 TITLE

This Ordinance shall be known as the Small Wind Energy System Ordinance and may be cited as such.

5-5-2 PURPOSE

In order to balance the need for clean, renewable energy resources and the necessity to protect the public health, safety and welfare of the community, Bremer County, Iowa, finds these regulations are necessary to ensure that wind energy conversion systems are appropriately designed and safely sited and installed.

5-5-3 FINDINGS

Bremer County finds that wind energy is a renewable, and non polluting energy source and that its conversion to electricity will reduce our dependence on nonrenewable energy resources and decrease the air and water pollution that results from the use of conventional energy sources.

5-5-4 APPLICABILITY

These provisions shall be applicable to all privately owned Small Wind Energy Systems located in the unincorporated areas of Bremer County.

5-5-5 DEFINITIONS

5.1 Small Wind Energy System:

A wind energy conversion system consisting of a wind turbine, tower, and associated control or conversion electronics. A system is considered a Small Wind Energy System only if it supplies electrical power solely for on site use, except that when a parcel on which the system is installed also receives electrical power supplied by a utility company, excess electrical power generated and not presently needed for on site use may be used by the utility company (i.e. net

metering). These systems are considered Small Wind Energy Systems for the purpose of these regulations regardless if the system is used for agricultural, residential or commercial uses.

5.2 Wind Turbine:

A structure that uses moving air to generate electricity (wind power).

5.3 Tower:

The vertical component of a wind energy conversion system that elevates the wind turbine generator and attached blades above the ground.

5.4 Fall Zone:

The area, defined as the furthest distance from the tower base, in which a tower will collapse in the event of a structural failure. This area is equal to the total height of the structure.

5.5 Property Line:

The boundary line of the area over which the entity applying for a Small Wind Energy System permit has legal control for the purposes of installation of a wind tower. This control may be attained through fee title ownership, easement, or other appropriate contractual relationship between the project developer and landowner.

5-5-6 PERMITTED USE

Small Wind Energy Systems shall be a permitted use in all Zoning District where structures of any sort are allowed. Any such Small Wind Energy System shall be subject to all provisions of these regulations, including setback requirements. Applicants are required to obtain a building permit from the Bremer County Building Department prior to erection of any Small Wind Energy System.

6.1 Parcel Size:

Small Wind Energy Systems shall not be allowed on parcels less than one (1) acre in size.

6.2 Clearance of Blade:

No portion of the Small Wind Energy System blade sweep shall extend within twenty feet of the ground. No blade sweep may extend over parking areas, driveways or sidewalks.

6.3 Setbacks:

Setbacks for the Small Wind Energy Systems tower shall be no closer from the property line than the height of the tower, with a minimum setback of (50) feet from all property lines. Guy wire anchor points may extend to within 10 feet of the property line. Building mounted systems shall also be required to be no closer than fifty (50) feet from all property lines, and shall not exceed the overall building height as allowed per Article 5 Chapter e Section 3.23 of the Bremer County Zoning Code (35ft) Building mounted systems shall comply with structural requirements of the building code. In no case shall a Small Wind Energy System tower be located less that the height of the tower from any road right of way.

6.4 Automatic Over Speed Controls:

All Small Wind Energy Systems shall be equipped with manual (electronic or mechanical) and automatic over speed controls to limit the blade rotation speed to within the design limits of the small wind energy system. Turbine/blade systems shall be rated to wind speeds of no less than 90 MPH, measured at sea level.

6.5 Sound:

On properties below thirty five (35 acres, Small Wind Energy Systems shall not exceed 60 dBA, as measured at the closest neighboring dwelling. The level, however, may be exceeded during short-term events such as utility outages and/or severe wind storms.

6.6 Compliance With Building Code:

Anyone who wishes to erect a Small Wind Energy System shall be required to obtain a building permit. Applications for Small Wind Energy Systems shall be accompanied by a site plan showing applicable setbacks and standard drawings of the wind turbine structure including the tower, base, footing, and guy wire anchors. An engineering analysis of the tower, guy wires, and anchors showing compliance with the Current County Building Code and certified by a licensed professional engineer shall also be submitted. This analysis is frequently supplied by the manufacturer: submission of wet stamped drawings in these cases may not be required, provided this is first approved by the Bremer County Building Official.

6.7 Compliance With FAA Regulations:

Small Wind Energy Systems must comply with applicable FAA regulations.

6.8 Compliance With Airport Tall Structure Ordinance:

No Small Wind Energy Systems tower shall be permitted that violates Title V Chapter 2 of the Bremer County Cod of Ordinance.

6.9 Compliance With National Electric Code:

Building Permit applications for Small Wind Energy Systems shall be accompanied by a line drawing of the electrical components in sufficient detail to allow for a determination that the manner of the installation conforms to the National Electrical Code.

6.10 Utility Notifacation:

No permit for a Small Wind Energy System shall be issued until the applicant provides documentation showing that they have met with the local utility company and have agreed to their net metering and interconnection requirements and that the proposed equipment meets the utility companies requirements. Off-grid systems shall be exempt from this requirement.

6.11 Ice Shedding:

The Small Wind Energy System owner shall ensure that ice from the wind turbine blades does not impact any off-site property including road right of way. Compliance with this requirement shall be indicated on the plans and specifications submitted with the permit application.

5-5-7 VARIANCES

The Bremer County Zoning Board of Adjustment, after a public hearing, may determine and vary the regulations of this Ordinance in harmony with their general purpose and intent, only in the specific instances hereinafter set forth, where the Board of Adjustment makes written findings of fact in accordance with the standards hereinafter prescribed and further, finds that there are no practical difficulties or particular hardships in the way of carrying out the strict letter of the regulations of this Ordinance.

1. Application for Variance

An application for a variance shall be filed in writing with the Zoning Administrator. Said application shall contain such information, and appropriate non-refundable fee, as the Board of Adjustment may, by rules, require.

2. Hearing on Application

Upon receipt in proper form of the application, the board of Adjustment shall hold a least one (1) public hearing on the proposed variance. Notice of time and place of such hearing shall be published not less than four (4) days nor more than twenty (20) days in advance of the public hearing in a newspaper of general circulation. Property owners within five hundred (500) feet of the property for which the change is being requested shall be notified as a courtesy as well. Before an application is filed with the Board of Adjustment, the applicant shall pay a non-refundable fee to Bremer County to cover the publishing and administration costsof said request, per the adopted zoning fee schedule.

5-5-8 SEVERABILITY CLAUSE

If any section, provision, or part of this Ordinance shall be adjudged invalid or unconstitutional. Such adjudication shall not affect the validity of the Ordinance as a whole or any section. Provision or part thereof not adjudged invalid or unconstitutional.

5-5-9 EFFECTIVE DATE

This Ordinance (09-10) shall become effective after its final passage, approval, and publication as provided by law. Passed, adopted, and approved by the Bremer County, Iowa, Board of Supervisors on August 17, 2009.