

Section 8.03 Small Wind Energy Systems

8.03.01 **Purpose**

It is the purpose of this regulation to promote the safe, effective and efficient use of small wind energy systems installed to reduce the *on-site consumption* of utility supplied electricity.

8.03.02 **Definitions**

The following are defined for the specific use of this section.

1. **Small Wind Energy System** shall mean a wind energy conversion system consisting of a wind turbine, a tower, and associated control or conversion electronics, which has a rated capacity of not more than 100 KW and which is intended to primarily reduce *on-site consumption* of utility power.
2. **Tower Height** shall mean the height above grade of the first fixed portion of the tower, *excluding* the wind turbine itself.

8.03.03 **Requirements**

Small wind energy systems shall be permitted as an Accessory Use within any district where the use is listed and allowed. Certain requirements as set forth below shall be met:

1. Tower Height
 - a. For property sizes between ½ acre and one (1) acre the tower height shall be limited to 80 feet.
 - b. For property sizes of one acre or more, there is no limitation on tower height, except as imposed by FAA regulations.
2. Setbacks
 - a. No part of the wind system structure, including guy-wire anchors, may extend closer than 10 feet to the property lines of the installation site.
 - b. Refer to **Section 8.04.05**
3. Noise
 - a. Small wind energy systems noise shall not exceed sixty (60) dBA, as measured at the closet neighboring inhabited dwelling unit.
 - b. The noise level may be exceeded during short term events such as utility outages and/or severe wind storms.
4. Approved Wind Turbines
 - a. Small wind turbines must have been approved under the *Emerging Technologies Program of the California Energy Commission* or *any other small wind certification program recognized by the American Wind Energy Association*.
5. Compliance with Building and Zoning Codes
 - a. Applications for small wind energy systems shall be accomplished by standard drawings of the wind turbine structure, including the tower base, and footings.
 - b. An engineering analysis of the tower showing compliance with official building code of the governing body and/or the State of Iowa and certified by a licensed professional engineer shall also be submitted.
 - c. The manufacturer frequently supplies this analysis.
 - d. Wet stamps shall not be required.
6. Compliance with FAA Regulations

- a. Small wind energy systems must comply with applicable Federal Aviation Administration (FAA) regulations, including any necessary approvals for installations close to airports.
- 7. Compliance with National Electrical Code
 - a. 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 installation conforms to the National Electrical Code.
 - b. The manufacturer frequently supplies this analysis.
- 8. Utility Notification
 - a. No small wind energy system shall be installed until *evidence* has been given that the utility company has been informed of the customer's intent to install an interconnected customer-owned generator.
 - b. Off-grid systems shall be exempt from this requirement.