

6.14.045 Wind Energy Regulations and Definitions

- .01 Administrator means the Sac County Zoning Administrator
- .02 Commercial Wind Energy Device means any wind energy device with a nameplate capacity of more than 100kw of which its primary intent is to generate electrical power to be sold to utility or power companies.
- .03 Owner/Developer means the individual or entity that intends to own or operate the wind energy system in accordance with this ordinance.
- .04 Rotor Diameter means the cross sectional dimension of the circle swept by the rotating blades.
- .05 Total Height means the vertical distance from ground level to the tip of a wind generator blade when the tip is at its highest point.
- .06 Wind Energy Device means equipment that converts and stores or transfers energy from the wind into usable forms of energy. This equipment includes any base, blade, foundation, generator, nacelle, roto, tower, transformer, wire, inverter, batteries, and other components used in the system. This term wind energy device often refers to and includes wind towers, wind turbines, wind generators, windmills, or wind energy conversion systems.
- .07 Meteorological Tower (or MET Tower) means any meteorological measuring or surveying equipment erected or attached to verify the wind and weather resources found in a certain area. Met towers are subject to permitting also.
- .08 Small Wind Energy Devices means a wind energy system that is used to generate electricity and has a nameplate capacity of 100kw or less, devices with a generating capacity of 20kw or less may be used for residential or personal use. A wind energy device with a generating capacity between 20kw and 100kw is considered small wind energy for commercial/industrial applications. A wind energy device is considered small only if it supplies electrical power solely for onsite use, except that when a parcel also receives electrical power supply by a utility company, excess power generated and not presently needed for on-site

use may be used by the utility company in accordance with Section 199, chapter 15.11(5) of the Iowa Administrative Code.

.09 Human Occupied dwelling means a dwelling that is currently occupied or capable of being occupied for residential purpose.

.10 Event Center means a facility on private property in the unincorporated area of Sac County that primarily functions to provide a venue for any type of social gathering by individuals assembled for the common purpose of attending a special event such as a celebration, ceremony, wedding, reception, party, meeting, corporate function, or similar activity to benefit someone other than the property owner, that is used for this purpose on a regular basis.

More definitions are listed in the Sac County Ordinance No. 6 under 6.01.010

6.14.046 A Modification fee of \$75.00 shall be charged to do minor changes of a permitted tower where any of the dimensions or locations of the permitted tower are changed.

Permit Requirements. A permit shall be required for the installation of a wind energy device. The application shall be accompanied by a site plan and fee, which includes the following.

- a. Location, site layout, including location from property lines, wind turbines, electrical wires, connection points with electrical grid, and related accessory structures. The site layout shall be drawn to scale.
- b. Wind energy devices specifications, including manufacturer and model, rotor diameter, tower height, and tower type (free standing or guyed).
- c. Tower & tower foundation blue prints or drawings.
- d. FAA Permit Application
- e. Documentation of land ownership or legal control of the property where device will be located.

- f. Applicable for commercial wind towers, the distances to any human occupied dwellings and the distances to other wind energy devices or other tower structures shall not be located less than the greater of 3.5 times the height, or 1697 feet.
- g. Applicable to commercial wind towers, access points to roads showing construction details typical of all entrances proposed to be built in the public right-of-way.
- h. The owner/developer shall be responsible for obtaining and submitting to Sac County Zoning Administrator, at the time the conditional use permit application is made, showing the names and last known addresses of the owners of all property within 2,640 feet (½ mile) of the proposed tower sites containing wind energy device(s). Prior to the approval for such conditional use permit, notice shall be given by the zoning administrator by ordinary mail to all adjacent property owners and owners of property within 2,640 feet (½ mile) of the proposed site(s) for which the conditional use is requested.
- i. A decommissioning agreement is required with the county prior to project construction.

6.14.047 The placement of all wind turbine Generators (WTG's) shall comply with the following:

1. Setbacks distances with respect to property lines shall not apply to wind turbines located within a wind farm where the property lines nearest to any turbines define and separate properties belonging to two or more participating landowners.
2. With respect to a wind turbine all setbacks and separation distances shall be defined relative to the nearest surface of the wind turbine as measured at the natural ground level.
3. A commercial wind turbine shall not be located less than the greater of 3.5 times the total height or 1697 ft. from:

- a. the nearest occupied or dwelling capable of being occupied for residential purpose
 - b. all incorporated areas
 - c. all public recreational areas
 - d. all village residential areas
 - e. all lake area development districts
 - f. all urban transition districts
 - g. all event centers
4. Wind generator towers may be setback less than the greater of 3.5 times the total height or 1697 ft. from a dwelling if the property owner signs a waiver agreeing to the reduced setback distance. However, the setback cannot be closer than the distance equal to the height of the tower.
5. Any wind turbine within a wind farm shall not be located less than 1.5 times the total height from the nearest abutting non-participating properties, unless the adjacent property owner signs an agreement. This agreement shall be attached to the application.
6. Any wind turbine within a wind farm shall be located not less than the total height from the road right-of-way.
7. Any wind turbine within a wind farm shall not straddle the property lines between two participating properties.
8. Approval of the conditional use permit for a wind energy device shall be valid for a period no longer than two (2) years from the date of such permit, unless construction has commenced or the Board of Adjustment specifically grants a longer period of time for the conditional use permit.
9. Sound. Sound produced by any wind energy devices under normal operating conditions, as measured from the wind turbine to a human

occupied dwelling shall not produce sound at a level that would constitute a nuisance. Wind energy noise should not exceed 50dba at a distance of 1,697 ft. or 3.5 times the total height, whichever is greater, which is the setback distance to a human occupied dwelling in Sac County. Sound levels, however, may be exceeded during short term events out of anyone's control, such as utility outages and/or severe wind storms.

10. Shadow Flickering. The maximum amount of shadow flickering from wind turbines on any human occupied dwelling shall not be more than 20 hours per year.

6.14.048 Wind Energy Requirements

- a. Lighting. A wind energy device shall not be artificially lighted unless such lighting is required by Federal Aviation Administration.
- b. Color and Finish. The wind device shall remain painted or finished the way it was originally applied by the manufacturer, unless approved in a special exception permit.
- c. Code Compliance. All wind energy devices shall comply with all applicable state construction and electrical codes, and the National Electrical Code. Wind energy devices that connect to the electrical utility shall comply with all local, State of Iowa and Federal regulations regarding the connection of energy generation facilities.
- d. Signs. All signs visible from any public road, other than the manufacturers or installer's identification or appropriate warning signs shall be prohibited.
- e. Placement. In all Residential, Lake area and Urban Transition districts no wind energy devices or accessory structure shall be permitted within the front yard without special exception.
- f. Access & Wires. All ground mounted electrical and control equipment shall be labeled and secured. All electrical wires for the wind tower except wires necessary for operation shall be underground.

g. Hotline Telephone Number. Prior to the commencement or construction of the project and during the entire operating life of the project, (the owner/operator) shall establish a telephone number hotline for the general public to call with any complaints or questions. The hotline number shall be publicized in order to insure that the general public is aware of the hotline number. The hotline number shall be conspicuously posted at the project sites, and at the project owner/operator's office in the county. Each call shall be logged by the project owner/operator, and such log shall identify the name, address, and reason for the call. The owner/operator shall provide the designated county representative with the call log on a monthly basis and upon reasonable request, to the extent allowed by law. The project owner/operator shall respond to all complaints within a reasonable time, not to exceed 72 hours, and shall take necessary actions to resolve all objectively verified complaints. During the construction of the project, the project owner/operator shall maintain updated contact information on file with the designated county representative, including a designated representative of the project owner/operator along with a phone number and email address, and a 24-hour emergency contact phone number.

Section 6.14.049 Mitigation of Damages

In the event there are any damages that occur during construction or maintenance of any wind energy device, the owner/developer shall be fully responsible to mitigate and correct any damages to public or private infrastructure within a year. The zoning Administrator and/or County Engineer may enter any property for which a permit has been issued under this ordinance to conduct an inspection to determine whether the conditions stated in the permit have been met or to check on damages.

1. Roads. Costs of replacement, maintenance, restoration, and/or damage to county roads, right-of-ways, or any county infrastructure resulting from modifications, adjustments, heavy equipment, or frequent use during construction and operation of the wind energy devices shall be the responsibility of the owner/developer of such project. A separate roads agreement that clearly and specifically lays out the rights and obligations of Sac County and the owner/developer with respect to the construction, maintenance and use of roads in connection with the development project will be required with the county engineer as a condition of the permit.

2. Drainage system. The owner/developer of the wind energy device shall remedy any adverse effect on any duly established drainage tile caused by construction or repair of such project within one year of discovery or reporting the problem.

6.14.050 Abandonment or Discontinuance

Any commercial wind energy device that is out of service for a continuous period of 180 days will be deemed to have been abandoned and discontinued for use. Upon such abandonment, the tower owner shall have an additional 6 months after receipt of notice, with which to (1) reactivate the use of the tower or (2) dismantle and remove the tower. Each applicant and/or the subsequent utility owners of a commercial wind energy device will be totally responsible for the abandonment, discontinuance or dismantling of the wind energy device as per decommissioning agreement.