

GENERAL ORDINANCE NO. 1-11

AN ORDINANCE
AMENDING CHAPTER 13,
GREEN BAY MUNICIPAL CODE,
REGARDING SMALL WIND ENERGY SYSTEMS
(TA 10-09)

THE COMMON COUNCIL OF THE CITY OF GREEN BAY DOES ORDAIN AS FOLLOWS:

Authority/Purpose:

This ordinance is adopted pursuant to authority granted by Wis. Stats. §§ 62.23(7) and 66.0401 with the purpose to:

- (1) Oversee the permitting of small wind energy systems.
- (2) Preserve and protect public health and safety without significantly increasing the cost or decreasing the efficiency of a small wind energy system, per Wis. Stats. § 66.0401.

SECTION 1. Section 13-300, Green Bay Municipal Code, is amended by adding the following definitions:

Council: means the City of Green Bay Common Council.

Eagle III Rescue: critical care trained personnel prepared for all types of medical emergencies comprised of ground, fixed wing, and helicopter unit transportation.

Federal Aviation Administration (FAA): an agency of the United States Department of Transportation with authority to regulate and oversee all aspects of civil aviation in the U.S.

Meteorological tower (met tower): is defined to include the tower, base plate, anchors, and hardware, anemometers (wind speed indicators), wind direction vanes, booms to hold equipment anemometers and vanes, data logger, instrument wiring, and any telemetry devices that are used to monitor or transmit wind speed and wind flow characteristics over a period of time for either instantaneous wind information or to characterize the wind resource at a given location.

Rotor diameter: the cross sectional dimension of the circle swept by the rotating blades.

Shadow flicker: The visible flicker of light when rotating blades of the small wind energy system cast shadows on the ground and nearby structures causing a repeating pattern of light and shadow.

Small wind energy system owner: shall mean the individual or entity that intends to own and operate the small wind energy system in accordance with this ordinance.

Small wind energy system: a wind energy system that

1. is used to generate electricity;
2. has a nameplate capacity of 100 kilowatts or less; and
3. has a total height of 170 feet or less.

The Austin Straubel International Airport Zoning Ordinance: Brown County Code of Ordinances, Chapter 24, Airport Zoning Districts.

Total height (Small Wind Energy Systems): the vertical distance from ground level to the tip of a wind generator blade when the tip is at its highest point.

Wind energy system: equipment that converts and then stores or transfers energy from the wind into usable forms of energy (as defined by Wis. Stat. § 66.0403(1)(m)). This equipment includes any base, blade, foundation, generator, nacelle, rotor, tower, transformer, vane, inverter, batteries or other component used in the system, including free standing and roof mounted systems.

Wind generator: blades and associated mechanical and electrical conversion components mounted on top of the tower.

SECTION 2. Section 13-614, Table 6-3, Green Bay Municipal Code, is amended as follows:

13-614. Permitted accessory uses.

Table 6-3. Permitted Nonresidential Accessory Uses in the Residential Districts

Use	RR	R1, R2	R3	Dev. Stds.
Uses Accessory to Dwellings				
Uses Accessory to Nonresidential Uses				
Antennas, satellite dishes, and similar equipment	P	P	P	X
Parking (surface)	P	P	P	
Parking (structured)		C	P	X
Signs, as regulated by Chapter 13-2000, Signs.	P	P	P	
Telecommunication facilities	C	C	C	X
Waste and recycling storage	P	P	P	X
Small Wind Energy System	C	C	C	X

Note: P = Permitted Use; C = Conditional Use

SECTION 3. Section 13-714, Table 7-3, Green Bay Municipal Code, is amended as follows:

13-714. Permitted accessory uses. Permitted accessory uses are as shown in Table 7-3.

Table 7-3. Permitted Accessory Uses in the Mixed-Use Districts

Use	OR	NC	D	Dev. Stds.
Uses Accessory to Dwellings				
Antennas, satellite dishes, and similar equipment as regulated by Chapter 13-1600	P	P	P	
Boarding or renting of rooms to not more than two (2) persons	P	P	P	
Fences	P	P	P	X
Gardening and other horticultural uses	P	P	-	
Home-based occupations (Amd. GO 36-02)	P	P	P	X
Private garages, carports, and parking spaces	P	P	P	
Private swimming pools, tennis courts, indoor exercise facilities, community meeting rooms, and other recreational facilities that are operated for the sole use and convenience of the residents of the principal use and their guests	P	P	C	
Tool houses, sheds, and similar buildings	P	P	P	-
Outdoor kennel or exercise run	P	P	-	X
Small Wind Energy System	C	C	-	X
Uses Accessory to Nonresidential Uses				
Antennas, satellite dishes and similar equipment	P	P	P	X
Carwash (automatic) when accessory to an auto service station in compliance with Chapter 13-1600.	-	C	C	X
Music (outdoor live or amplified music)	-	-	C	X
Off-street loading docks	C	P	P	X
Outdoor display of vehicles			C	X
Outdoor commercial recreation	-	C	C	X
Outdoor sales, display, and storage	see Section 13-705			X
Parking (surface)	P	P	P	
Parking (structured)		C	P	X
Parking and storage of vehicles licensed to a business	P	P	P	X
Signs, as regulated by Chapter 13-2000	P	P	P	
Telecommunication facilities	C	C	C	X
Warehousing, incidental repair, or processing necessary to conduct a permitted principal use,	-	P	P	X

conducted within principal building, not exceeding 25% of total floor area				
Waste and recycling storage	P	P	P	X
Small Wind Energy Systems	C	C	C	X

SECTION 4. Section 13-814, Table 8-3, Green Bay Municipal Code, is amended as follows:

13-814. Permitted nonresidential accessory uses. Permitted accessory uses are as shown in Table 8-3.

Table 8-3. Permitted Accessory Uses in the Commercial Districts

Use	C1	C2	C3	Dev. Stds.
Uses Accessory to Nonresidential Uses				
Antennas, satellite dishes, and similar equipment	P	P	P	x
Carwash (automatic) when accessory to a service station in compliance with Chapter 13-1600		C	C	x
Music (outdoor live or amplified music)	C	C	C	x
Off-street loading docks	C	P	P	x
Outdoor display of vehicles		P	C	x
Outdoor commercial recreation	C	C	C	x
Outdoor sales, display, and storage	*	**	*	x
Parking (surface)	P	P	P	
Parking (structured)		C	P	x
Parking and storage of vehicles licensed to a business	P	P	P	x
Signs, as regulated by Chapter 13-2000	P	P	P	
Telecommunication facilities	C	C	C	x
Warehousing, incidental repair, or processing necessary to conduct a permitted principal use, conducted within the principal building, not exceeding 40 percent of total floor area		P	P	x
Waste and recycling storage	P	P	P	X
Small Wind Energy Systems	C	C	C	X

SECTION 5. Section 13-911, Table 9-3, Green Bay Municipal Code, is amended as follows:

13-911. Permitted accessory uses. Permitted accessory uses are as shown in Table 9-3

Table 9-3. Permitted Accessory Uses in the Industrial Districts

Use	LI	GI	BP	Dev. Stds.
Antennas, satellite dishes, and similar equipment	P	P	P	X

Use	LI	GI	BP	Dev. Stds.
Carwash (automatic) when accessory to a service station in compliance with Chapter 13-1600	C	C	C	X
Music (outdoor live or amplified music)	C	C	C	
Off-street loading docks	P	P	P	
Outdoor display of vehicles	C	C	C	X
Outdoor commercial recreation	C	C	C	X
Outdoor sales, display, and storage	P	P	-	X
Parking (surface)	P	P	P	
Parking (structured)	P	P	P	
Parking and storage of vehicles licensed to a business	P	P	P	X
Signs, as regulated by Chapter 13-2000	P	P	P	
Telecommunication facilities	C	C	C	X
Warehousing, incidental repair, or processing necessary to conduct a permitted principal use, conducted within the principal building, not exceeding 40 percent of total floor area	P	P	P	X
Waste and recycling storage	P	P	P	X
Small Wind Energy Systems	C	C	C	X

SECTION 6. Section 13-1009, Table 10-3, Green Bay Municipal Code, is amended as follows:

13-1009. Permitted accessory uses. Permitted accessory uses are as shown in Table 10-3.

Table 10-3. Permitted Accessory Uses in the Public Institutional District

Antennas, satellite dishes, and similar equipment	P	Dev. Stds.
Off-street loading docks	P	
Outdoor recreation facilities	P	
Parking (surface)	P	
Parking (structured)	P	
Signs, as regulated by Chapter 13-2000, Signs	P	
Storage within enclosed buildings	P	
Telecommunication facilities	P	
Waste and recycling storage	P	
Small Wind Energy Systems	C	X

SECTION 7. Section 13-1610, Development Standards – Small Wind Energy System, Green Bay Municipal Code, is created as follows:

13-1610. Development Standards – Small Wind Energy System.

(a) Standards

- (1) Multiple free standing or roof mounted wind energy systems may be permitted per parcel under a Conditional Use Permit compliant with Chapter 13-200 Green Bay Zoning Code.
- (2) Met towers shall be permitted under the same standards, permit requirements, permit and abandonment procedures as a small wind energy system.
- (3) Height Limitations
 - a. The overall height of any free standing small wind energy system may be permitted to supersede zoning district height standards but shall not exceed 170 feet in total height.
 - b. Roof mounted wind energy systems shall be integrated, to the extent possible, into the design of the structure that it is being attached to and shall not exceed the height requirement of the zoning district.
- (4) Setbacks: A wind tower for a small wind system shall be setback a distance equal to its total height from:
 - a. Any public road right of way, unless written permission is granted by the governmental entity with jurisdiction over the road;
 - b. Any overhead utility lines, unless written permission is granted by the affected utility;
 - c. All property lines within residentially zoned districts.
 - d. All property lines within or adjacent to commercial or industrial zoned areas, unless written permission granted from the affected property owners.
- (5) Sound/Noise Level: On-site small wind energy systems shall comply with Chapter 27.201(2), Public Peace and Good Order, Regulation of Noise Limitations, Green Bay Municipal Code. Sound pressure levels may be exceeded during short term events such as utility outages and/or severe wind storms. All small wind energy systems shall be equipped with both manual and automatic controls to limit the rotational speed of the blade within the design limits of the rotor.
- (6) Access:
 - a. All ground mounted electrical and control equipment shall be labeled or secured to prevent unauthorized access.
 - b. The tower shall be designed and installed so as to not provide step bolts or a ladder readily accessible to the public at a minimum height of 8 feet above the ground.
- (7) Electrical Wires: All electrical wires associated with a small wind energy system, other than wires necessary to connect the wind generator to the tower wiring, the tower wiring to the disconnect junction box, and the grounding wires, shall be located underground.
- (8) Lighting: A wind tower and generator shall not be artificially lighted unless such lighting is required by the Federal Aviation Administration.
- (9) Appearance, Color, and Finish: The wind generator and tower shall remain painted or finished in the color or finish that was originally applied by the manufacturer, unless approved in the building permit. All portions of the wind energy system shall be a non-reflective, non obtrusive color. Only monopole towers are permitted. The appearance of the turbine, tower and any other related components shall be maintained throughout the life of the wind energy system pursuant to industry standards.
- (10) Shadow Flicker: Small wind energy systems shall be sited in a manner that does not result in significant shadow flicker impacts. The applicant has the burden of proving

that the shadow flicker will not have significant adverse impact on neighboring or adjacent uses. Potential shadow flicker will be addressed either through siting or mitigation measures.

- (11) Signs: All signs shall be prohibited, other than the manufacturer's or installer's identification, appropriate warning signs, or owner identification on a wind generator, tower, building, or other structure associated with a small wind energy system visible from any public road shall be prohibited. Systems shall not be used for displaying any advertising.
- (12) The applicant shall notice Eagle III Rescue of any free-standing small wind energy system.
- (13) All small wind energy system towers more than 50' tall require a height permit from the Airport Director.
- (14) Before construction, the applicant shall check to determine if the proposal meets the reporting criteria of Code of Federal Regulation (CFR) Title 14, Part 77.13; and if required, notify the Federal Aviation Administration (FAA) using their Obstruction Evaluation/Airport Airspace Analysis (OE/AAA) website:

<https://oeaaa.faa.gov/oeaaa/external/portal.jsp>

The FAA's notice criteria tool is at:

<https://oeaaa.faa.gov/oeaaa/external/gisTools/gisAction.jsp?action=showNoNoticeRequiredToolForm>

If the proposal meets FAA reporting criteria, the City of Green Bay will table action on approving the proposal until the FAA airspace study is complete, and the FAA has issued a final Letter of Determination of no hazard to air navigation.

- (15) Code Compliance.
 - a. A small wind energy system including tower shall comply with all applicable state construction and electrical codes, and the National Electrical Code.
 - b. Small wind energy systems that connect to the electric utility shall comply with the Public Service Commission of Wisconsin's Rule 119, "Rules for Interconnecting Distributed Generation Facilities."

(b) Site Plan Review and Building Permit Requirements.

- (1) All applications for permits shall comply with the requirements of Chapter 13-1800 Site Plan Review, and a building permit shall be required for the installation of a small wind energy system.
- (2) The site plan application shall include but not limited to the following:
 - a. Property lines and physical dimensions of the property
 - b. Location, dimensions, and types of existing major structures on the property
 - c. Location of the proposed wind system tower
 - d. The right-of-way of any public road that is contiguous with the property
 - e. Location of any overhead utility lines
 - f. Wind system specifications, including manufacturer and model, rotor diameter, tower height
 - g. Tower foundation blueprints or drawings
 - h. Tower blueprint or drawing
 - i. Details of any support or structural components.
 - j. An ambient sound sample and the manufacturer's sound report

- k. Insurance. A person seeking a building permit to erect a small wind energy system shall provide evidence, in the form of a certificate of insurance satisfactory to the city, showing general liability insurance coverage for the installation and operation of the system under a standard homeowner's or standard business owner's insurance policy, separate and distinct from any insurance requirements of a public utility.

(c) Abandonment

- (1) A small wind energy system that is out-of-service for a continuous 12-month period will be deemed to have been abandoned. The Zoning Administrator may issue a Notice of Abandonment to the owner of a small wind energy system that is deemed to have been abandoned. The owner shall have the right to respond to the Notice of Abandonment within 30 days from Notice receipt date. The Zoning Administrator shall withdraw the Notice of Abandonment and notify the owner that the Notice has been withdrawn if the owner provides information that demonstrates the small wind energy system has not been abandoned.
- (2) If the small wind energy system is determined to be abandoned, the owner of a small wind energy system shall remove the facility at the owner's sole expense within 3 months of receipt of Notice of Abandonment. If the owner fails to remove the wind generator from the tower, the Administrator may pursue a legal action to have the wind generator removed at the owner's expense.

SECTION 8. All ordinances, or parts of ordinances, in conflict herewith are hereby repealed.

SECTION 9. This ordinance shall not take effect until a public hearing is held thereon as provided by Section 13-204, Green Bay Municipal Code, and the adoption and publication of this ordinance.

Dated at Green Bay, Wisconsin, this 7th day of June, 2011.

APPROVED:

James J. Schmitt
Mayor

ATTEST:

Lauri A. Marenger
Clerk

First Reading - 1/18/11
Effective Date - 6/11/11