

**CITY OF LAKE ELMO  
COUNTY OF WASHINGTON  
STATE OF MINNESOTA**

**ORDINANCE NO. 08-199**

**AN ORDINANCE AMENDING THE LAKE ELMO CITY ZONING CODE OF  
ORDINANCES BY ADDING ADDITIONAL STANDARDS AND LANGUAGE FOR  
WIND GENERATOR SYSTEMS.**

**SECTION 1. The City Council of the City of Lake Elmo hereby amends Title I: General Provisions; Chapter 11: Definitions 11.01 by amending the definition of Wind Generator:**

*Wind Generator.* A machine which generates energy/power from the wind.

**SECTION 2. The City Council of the City of Lake Elmo hereby amends Title XV: Land Use; Chapter 150: Wind Generators, by repealing Sections 150.090 – 150.094 of the Wind Generator code:**

**SECTION 3. The City Council of the City of Lake Elmo hereby amends Title XV: Land Usage; Chapter 154: Zoning Code; Article II; Section 154.012; Subd. (B) (12) by adding the language as follows:**

*Wind Generator.* A machine which generates energy/power from the wind.

**SECTION 4. The City Council of the City of Lake Elmo hereby amends Title XV: Land Usage; Chapter 154: Zoning Code; Article IX; to create Section 154.308 Standards for Alternative Energy and include the language as follows:**

- A. Wind Generator Systems.* Wind generator systems are allowed as an accessory or principal use with a conditional use permit in the rural and commercial districts. The system must comply with all standards described herein. Applicants should check for compliance with local utility, State, and Federal laws before construction.
- 1. Application.* An application for a wind generator shall follow the application and review procedures for a conditional use permit as specified in Section 154.106. In addition to the submission requirements of Section 154.106, an application for a wind generator shall include the following:
- a) A report from a professional engineer describing the proposed wind generator and certifying the safety of the device
  - b) Appropriate certifications as required by a nationally Recognized Testing Laboratory. Self-certification is not allowed.
  - c) A statement indicating that the proposed wind generator is in compliance with all applicable regulations of the Federal Aviation Administration where appropriate.
  - d) All necessary information relating to site (site plan) and system design.
- 2. Specific Standards for Ground Mounted Systems.*

- a) *Maximum Height.* 125 feet, including the system as a whole, from the base to the highest point.
  - b) *Setbacks.* At least 1.25 times the height of the wind generator from any lot line, shoreland overlay district boundary, and any utility lines and public or private road way. A setback of at least 200 feet is required from any principal structure on adjacent properties within the Rural Districts.
  - c) *Rotors.* Rotors or moving parts are required to be at least 30 feet above the ground and 30 feet above any obstruction equal to its height from the base. Rotor diameter shall not exceed 52 feet or a blade length of 26 feet.
  - d) *Minimum Lot Size.* There is no minimum lot size on which a wind generator may be constructed unless there is more than one wind generator per parcel, provided required setbacks are met.
  - e) *Number.* For parcels on which there are more than one wind generator, the number of wind generators allowed is limited to one system per 5 acres, and all systems must meet minimum setback requirements.
3. *Specific Standards for Roof/Structure Mounted Systems.*
- a) *Height.* Subject to the maximum building height specified for the district in which it is constructed.
  - b) *Setbacks.* Must be set back a distance equal to its height away from utility lines, and the location must support the structure.
  - c) *Rotors.* Moving parts may not be located below the roof line on which the system is mounted.
  - d) *Number.* The number of roof/structure mounted systems allowed is limited to one system per building within rural districts and is limited to the manufacturer's setback recommendations within commercial districts.
4. *General Standards.*
- a) *Design.* All turbines shall be commercially available and not prototype turbines. Each wind generator shall be equipped with both a manual and automatic braking device capable of stopping the operation in high winds. No components unnecessary to the operation of the wind generator shall be allowed.
  - b) *Maintenance.* Wind generators shall be inspected and maintained under agreement or contract by the manufacturer or other qualified entity. The owner of the wind generator must have the tower inspected by a licensed qualified professional and submit to the City a report on the status and condition of the wind generator. The times of inspection shall be specified by the manufacture or at a minimum of every two (2) years. Routine maintenance, including but not limited to, painting, part replacement, etc. shall be done as necessary but does not require a report to be submitted. Penalty, see § 10.99

- c) *Climbing.* To prevent unauthorized climbing, such apparatus shall not be located within 12 feet of the ground, and a locked anti-climb device shall be installed on the tower.
- d) *Signage.* Properties with wind generators shall have at least one (1) sign posted at the entrance of the property or structure on which the wind generator is mounted, containing the following information: voltage information, manufacturer's name, emergency telephone number, and emergency shutdown procedures. There shall also be signs located on transformers and substations which are directly connected to the system. Systems shall not be used for displaying any advertising, nor for other uses including but not limited to cell phone antennas, flags, ham radio antennas, etc.
- e) *Lightning.* All wind generators shall be protected against lightning strikes.
- f) *Aviation.* No Wind Generator shall be located in a way that will create an obstruction to navigable airspace of public and private airports in Minnesota. Wind Generators are prohibited in the Lake Elmo Airport Safety Zone.
- g) *Feeder lines.* The electrical collection system (Wind Generator) shall be placed underground within the interior of each parcel. They may run through Public water ways subject to DNR, FWS, and or USACOE permits.
- h) *For all guyed towers.* Visible and reflective objects, such as plastic sleeves, reflectors or tape, shall be placed on the guy wire anchor points and along the outer and innermost guy wires up to a height of 8 feet above the ground.
- i) *Screening.* Wind Generator are exempt from the screening requirements.
- j) *Aesthetics.* The appearance of the Wind Generator, tower and any other related components shall be maintained throughout the life of the wind generator per the manufactures/industry standards. Ground mounted wind generators shall be installed on tubular and monopole design towers.
- k) *Color.* Wind Generators shall be uniform in color, white or off white, grey, or another non-obtrusive color. Finishes shall be matt or non-reflective.
- l) *Vibration.* No wind generator shall produce vibrations through the ground that are perceptible beyond the property on which it is located.
- m) *Noise.* Wind Generator shall comply with language outlined in Chapter 130: General Offences; Noise Control Section 130.45.
- n) *Lighting.* Systems shall not be illuminated unless required by the Federal Aviation Administration (FAA), state, or federal regulations.
- o) *Electrical Certification.* Batteries or other energy storage device shall be designed consistent with the Minnesota Electrical code and Minnesota Fire Code. Wind Generators must also meet the standards established by the International Electrotechnical Commission (IEC)

- p) *Intent to install.* Prior to installation of a wind generator the applicant must show proof that the utility provider has given consent to connect to the grid. Off-grid systems are exempt from this requirement.

5. *Decommissioning*

- a) *Decommissioning.* A wind energy systems shall be maintained at all times according to the manufacture's specifications. If a wind generator has become unstable, leans significantly out-of-plumb, or poses a danger of collapse, it shall be removed or brought into repair within 60 days following notice by the Building Official to the owner of the lot upon which the system is located. The Building Official may order immediate repairs if, in the opinion of the Building Official, the generator will imminently collapse or if a safety risk is being posed. If the owner of a wind generator plans to abandon or discontinue, or is required to discontinue, the operation of the system, the owner shall notify the Building Official by certified U. S. mail of the proposed date of abandonment or discontinuation. Such notice shall be given no less than 30 days prior to abandonment or discontinuation. In the event that an owner fails to give such notice, the wind energy system shall be considered abandoned if the wind energy system is not operated for a continuous period of twelve (12) months. At such point the owner has the option to either fully abandon and remove the system or submit a new application for operation of the system.
- b) *Removal.* Upon abandonment or discontinuation of use, the property owner shall physically remove the wind energy system as soon as practical, considering the weather conditions within six (6) months from the date of abandonment or discontinuation of use. "Physically remove" includes, without limitation, the actual, complete removal of the tower, turbine, and all other components of the wind energy system from the site of the original installation.
- c) *Site Restoration.* The owner shall, upon "decommissioning/abandonment," as soon as practical, considering the weather, restore the area affected by any wind generator to the condition that existed immediately before construction began, to the extent possible. The time period may be no longer than six (6) months after decommissioning of the turbine, unless otherwise negotiated with the Building Official. Restoration shall be compatible with the safe operation, maintenance, and inspection of the City. All costs associated with the restoration of the site will be the responsibility of the property owner.
- d) *Transfer of ownership.* Permits are not transferrable. If the portion of property containing the wind generator is sold, the new owner must apply for a new wind generator permit or remove the system per the decommissioning plan.



**SECTION 5. The City Council of the City of Lake Elmo hereby amends Title XI: Land Usage; Chapter 154.400; Zoning Code: Article XI: Rural Districts; 154.401 Permitted, Conditional, and Interim Uses; Subd. (a) table 9-1 of the accessory use table in this chapter to include Wind Generators as a Conditional use in each district.**

**Table 9-1 Permitted, Conditional, and Interim Uses, Rural Districts**

	RT	A	RR	RS	RE	Standard
<b>Residential Uses</b>						
<b>Household Living</b>						
Single-Family Detached Dwelling	P	P	P	P	P	154.404 (A)
Secondary Dwelling	-	P	-	-	-	154.404 (D)
<b>Services</b>						
Self Service Storage Facility	I <sup>a</sup>	I <sup>a</sup>	-	-	-	154.404 (G)
<b>Outdoor Recreation</b>						
Outdoor Recreation Facility	-	C	-	-	-	154.306 (C)
Parks and Open Areas	P	P	P	P	P	154.012 (B) (7)
Restricted Recreation	-	C	-	-	-	154.306 (B)
<b>Agricultural and Related Uses</b>						
Agricultural Entertainment Business	I	I	I	-	-	154.914
Agricultural Production	P	P	P	-	-	154.012 (B) (9)
Agricultural Sales Business	I	I	I	-	-	154.913
Agricultural Services	C	C	-	-	-	154.404 (J)
Forestry Operations	-	P	-	-	-	154.012 (B) (9)
Greenhouses, Non Retail	C	C	C	-	-	154.012 (B) (9)
Wayside Stand	P	P	P	-	-	154.012 (B) (9)
<b>Industrial and Extractive Uses</b>						
Motor Freight and Warehousing	I <sup>a</sup>	-	-	-	-	154.404 (G)
<b>Environmental Uses</b>						
Wind Generator – Ground Mounted	C	C	C	C	C	154.308
Wind Generator – Roof/Structure Mounted	C	C	C	C	C	154.308
<b>Accessory Uses</b>						
	RT	A	RR	RS	RE	Standard
Water-Oriented Accessory Structures	P	P	P	P	P	154.800
Wind Generator – Ground Mounted	C	C	C	C	C	154.308
Wind Generator – Roof/Structure Mounted	C	C	C	C	C	154.308
Other Structures Typically Incidental and Clearly Subordinate to Permitted Uses	P	P	P	P	P	

**SECTION 6. The City Council of the City of Lake Elmo hereby amends Title XI: Land Usage; Chapter 154.400; Zoning Code: Article XI: Rural Districts; 154.402 Lot Dimensions and Building Bulk Requirements; Notes to Rural Districts Table 9-2 to read as follows.**

Notes to Rural Districts Table 9-2

- a. 1 dwelling unit per 40 acres applies to all non-farm dwellings. In addition to non-farm dwellings (1 per 40 acres), each farm is allowed one farm dwelling per farm.



- b. Nominal 40 acres: a 40-acre parcel not reduced by more than 10% due to road rights-of-way and survey variations.
- c. Nominal 10 acres: a 10-acre parcel not reduced by more than 10% and/or a 10-acre parcel located on a corner or abutting a street on 2 sides not reduced by more than 15% due to road rights-of-way and survey variations.
- d. The minimum lot size for lots served by public sanitary sewer shall be 24,000 square feet per residential unit.
- e. A minimum of 1.25 acres of land above the flood plain or free of any drainage easements is required.
- f. Lots must be configured to contain a circle with a diameter of 250 feet minimum; the ratio of lot length to width shall be a maximum of 3:1 – Flag lots are prohibited.
- g. Corner properties: The side façade of a corner building adjoining a public street shall maintain the front setback of the adjacent property fronting upon the same public street, or the required front yard setback, whichever is less. If no structure exists on the adjacent property, the setback shall be as shown in the table.
- h. Ground-mounted wind generators may exceed the allowable height restriction designated in all rural districts and are subject to different setback requirements as identified in section 154.308.

**SECTION 9. The City Council of the City of Lake Elmo hereby amends Title XI: Land Usage; Chapter 154.550; Zoning Code: Article XVI; Commercial Districts: 154.550 Permitted, Conditional, and Interim Uses, Commercial Districts; Subd (a) table 12-1 of the accessory use table in this chapter to include Wind Generators as a Conditional use in each district.**

	<i>LC</i>	<i>CC</i>	<i>C</i>	<i>BP</i>	<i>Standard</i>
<b><i>Industrial and Extractive Uses</i></b>					
Heavy industrial	-	-	-	-	
Landfill	-	-	-	-	
Light industrial	-	-	-	C	154.012 (B) (10)
Non-production industrial	-	-	-	C	154.554 (J)
Motor freight and warehousing	-	-	-	C	154.012 (B) (10)
Research and testing	-	-	-	C	154.012 (B) (10)
Resource extraction	-	-	-	-	154.012 (B) (10)
Salvage/recyclable center	-	-	-	-	154.012 (B) (10)
<b><i>Transportation and Communications</i></b>					
Broadcasting and communications	C	C	C	C	154.012 (B) (11), 154.083
<b><i>Environmental Uses</i></b>					
Wind Generator – Ground Mounted	C	C	C	C	154.308 (B)
Wind Generator – Roof/Structure Mounted	C	C	C	C	154.308 (B)
<b><i>Accessory Uses</i></b>					

Bed and breakfast	-	-	-	-	154.012 (B) (12), 154.310 (A)
Drive-through facility	-	C	C	-	154.304 (A)
Family day care	-	-	-	-	154.012 (B) (12)
Group family day care	-	-	-	-	154.012 (B) (12)
Home occupation	-	-	-	-	154.012 (B) (12)
Parking facility	C	C	P*	P	*154.554 (I)
Outdoor storage	-	-	C	-	
Outdoor display	-	-	C	-	
Solar equipment	P	P	P	P	154.310 (C)
Wind Generator – Ground Mounted	C	C	C	C	154.308
Wind Generator – Roof/Structure Mounted	C	C	C	C	154.308
Other structures typically incidental and clearly subordinate to permitted use	P	P	P	P	

**SECTION 10. The City Council of the City of Lake Elmo hereby amends Title XI: Land Usage; Chapter 154.550; Zoning Code: Article XVI; Commercial Districts: 154.552 Lot Dimensions and Building Bulk Requirements; Notes to table 12-2 to read as follows.**

**Notes to Table 12-2**

- a. Buildings higher than 50 feet may be allowed through a Conditional Use Permit and would be subject to a separate technical and planning evaluation.
- b. Accessory buildings must be set back 10 feet from property lines.
- c. Corner properties: The side facade of a corner building adjoining a public street shall maintain the front setback of the adjacent property fronting upon the same public street, or the required front yard setback, whichever is less. If no structure exists on the adjacent property, the setback shall be as shown in the table.
- d. Ground mounted wind generators may exceed the allowable height restriction designated in all commercial districts and are subject to different setback requirements as identified in section 154.308.

**SECTION 11. Effective Date.** This ordinance shall become effective immediately upon adoption and publication in the official newspaper of the City of Lake Elmo.

**SECTION 12. Adoption Date.** This Ordinance 08-199 was adopted on this 7<sup>th</sup> day of Feb., 2018, by a vote of 4 Ayes and 0 Nays.

LAKE ELMO CITY COUNCIL



Mike Pearson, Mayor

ATTEST:



Julie Johnson, City Clerk

This Ordinance 08- 199 was published on the 28<sup>th</sup> day of February, 2018.