
WIND ENERGY CONVERSION SYSTEMS APPLICATION

535.690. Purpose. Regulations governing wind energy conversion systems are established to provide for appropriate locations for wind energy conversion systems, to ensure compatibility with surrounding uses, and to promote safe, effective and efficient use of wind energy conversion systems to increase opportunities for generation of renewable energy.

535.700. Definitions. As used in this article, the following words shall mean:

Institutional use. Educational facilities, golf courses, sports arenas, religious institutions, athletic fields and publicly owned property. For the purpose of this section, parks and cemeteries, whether publicly or privately owned, shall not be included in this definition.

Publicly owned property. Land, buildings or structures owned by any governmental body or public agency including city, county, state or federally owned properties, other than public rights-of-way.

Tower, monopole. A wind energy conversion system tower consisting of a single pole, constructed without guyed wires and anchors.

Wind energy conversion system. Any device, such as a wind charger, windmill, or wind turbine, and associated facilities including the support structure of the system such as a tower, that converts wind energy to electrical energy.

Wind energy conversion system, building mounted. A wind energy conversion system located on a building.

Wind energy conversion system height. The height of a freestanding wind energy conversion system shall be measured as the distance from ground level to the highest point on the tower, including the vertical length of any extensions such as the rotor blade. The height of a building mounted wind energy conversion system shall be measured as the distance from the point where the base of the system is attached to the building or to the lowest point on the wind energy conversion system, whichever is closer to the ground, to the highest point on the wind energy conversion system, including the vertical length of any extensions such as the rotor blade.

535.710. Permitted uses subject to administrative review and approval. Notwithstanding the height limitations of the zoning district, building mounted wind energy conversion systems shall be permitted in all zoning districts, subject to administrative review and approval by the zoning administrator, as specified in section 535.720, and shall comply with the standards of section 535.750 and the following:

- (1) Building mounted wind energy conversion systems shall not exceed fifteen (15) feet in height.
- (2) Building mounted wind energy conversion systems shall be prohibited on residential structures less than four (4) stories and forty-two (42) feet in height and structures accessory to residential uses.
- (3) On nonresidential buildings less than four (4) stories and forty-two (42) feet in height, building mounted wind energy conversion systems shall be setback at least ten (10) feet from the front, side and rear walls of the structure upon which it would be mounted.
- (4) Building mounted wind energy conversion systems on structures over four (4) stories and forty-two (42) feet in height shall be installed above the fourth story.

<p>For reasonable accommodations or alternative formats please contact 311 at 612-673-3000. People who are deaf or hard of hearing can use a relay service to call 311 at 612-673-3000. TTY users call 612-673-2157 or 612-673-2626. Para asistencia 612-673-2700 - Rau kev pab 612-673-2800 - Hadii aad Caawimaad u baahantahay 612-673-3500.</p>
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- (5) The structure upon which the proposed wind energy conversion system is to be mounted shall have the structural integrity to carry the weight and wind loads of the wind energy conversion system and have minimal vibration impacts on the structure.

535.720. Administrative review process.

- (a) *In general.* The zoning administrator, in consultation with the planning director, shall have up to fifteen (15) working days following the submittal of a complete application to approve or deny such application. The zoning administrator may impose such conditions and require such guarantees deemed reasonable and necessary to protect the public interest and to ensure compliance with the standards and purposes of this zoning ordinance and policies of the comprehensive plan.
- (b) *Submittal requirements.* In addition to the general application requirements of Chapter 525, Administration and Enforcement, the applicant shall submit the following:
 - (1) Scaled schematic drawings and photographic perspectives showing the structure and the placement of the wind energy conversion system.
 - (2) A written certification from a licensed structural engineer that the structure has the structural integrity to carry the weight and wind loads of the wind energy conversion system and have minimal vibration impacts on the structure.
 - (3) An analysis from a licensed engineer showing how the wind energy conversion system shall be designed, constructed and operated in compliance with all applicable federal, state, and local laws, codes, standards and ordinances.
 - (4) A written certification from a licensed engineer confirming that the wind energy conversion system is designed to not cause electrical, radio frequency, television and other communication signal interference.
 - (5) Sufficient information demonstrating that the wind energy conversion system shall be used primarily to reduce on-site consumption of electricity, including but not limited to a complete listing of on-site electrical demands.
 - (6) Written evidence that the electric utility service provider that serves the proposed site has been informed of the applicant's intent to install a wind energy conversion system, unless the applicant does not plan, and so states so in the application, to connect the system to the electricity grid.
 - (7) Written certification from a licensed engineer stating the wind power density for the specific site is Class 2 or greater as defined by the United States Department of Energy.
- (c) *Appeals.* Notwithstanding the provisions of Chapter 525, Administration and Enforcement, decisions of the zoning administrator regarding the administrative review of permitted wind energy conversion systems shall be subject to appeal to the city planning commission.

535.730. Conditional uses. Freestanding wind energy conversion systems may be allowed as a conditional use, subject to the provisions of Chapter 525, Administration and Enforcement, sections 535.740 and 535.750, and the following location and lot size restrictions:

- (1) Residence and office residence districts. Freestanding wind energy conversion systems in the residence and office residence districts shall only be located on institutional use sites.
- (2) Downtown area. Freestanding wind energy conversion systems shall be prohibited in the downtown area including all downtown districts and the area bounded by the Mississippi River, I-35W, I-94, I-394, and 3rd Avenue North (extended to the river).
- (3) Minimum lot area. No freestanding wind energy conversion system shall be established on a zoning lot less than one (1) acre in area. A maximum of one wind energy conversion system per acre of lot area shall be allowed.

535.740. Specific standards for conditional uses. All wind energy conversion systems requiring a conditional use permit shall be subject to the provisions of Chapter 525, Administration and Enforcement, and the submittal requirements of section 535.720(b). In addition, the applicant shall comply with the following standards and submit written documentation indicating such compliance:

- (1) *Tower type.* Towers shall be of a monopole design. The city planning commission may consider the substitution of alternative tower types in cases where structural and design considerations, and location suggests a tower other than a monopole.
- (2) *Height of freestanding wind energy conversion systems.*
 - a. *Residence, office residence and commercial districts.* The height of freestanding wind energy conversion systems located in the residence, office residence and commercial districts shall be no more than sixty (60) feet on zoning lots between one (1) and five (5) acres and shall be no more than one hundred (100) feet on zoning lots of more than five (5) acres in area.
 - b. *Industrial districts.* The height of freestanding wind energy conversion systems located in the industrial districts shall not exceed one hundred (100) feet.
 - c. *Minimum height.* The minimum distance between the ground and the vertical length of any extensions such as the rotor blades shall be fifteen (15) feet.
 - d. *Excess height.* The city planning commission may increase the height of freestanding wind energy conversion systems, provided that in the residence, office residence and commercial districts such increase shall not exceed the maximum height by more than fifty (50) percent. The applicant shall demonstrate to the satisfaction of the city planning commission the following:
 1. The surrounding topography, structures, vegetation and other factors make a tower that complies with the district height regulations impractical.
- (3) *Encroachments and setbacks.*
 - a. The base of the tower shall maintain a minimum distance from the nearest residential structure and from any overhead utility lines equal to twice the height of the tower. For the purposes of this article, residential structures shall also include any parking structure attached to a principal residential structure.
 - b. The support structure, including any guy wires, shall not be located in any required front, side or rear yard, nor shall they be located between a principal building and a required front or side yard.
- (4) *Security.* All sites shall be reasonably protected against unauthorized climbing. The bottom of the tower, measured from ground level to twelve (12) feet above ground level, shall be designed in a manner to discourage unauthorized climbing.
- (5) *Electrical wires.* All electrical wires associated with a freestanding wind energy conversion system shall be located within the tower and underground.

535.750. Development standards for all permitted and conditional wind energy conversion systems. In addition to the standards of sections 535.710, 535.720, 535.730 and 535.740 above, all wind energy conversion systems shall be subject to the following standards:

- (1) *Maximum capacity.* Wind energy conversion systems shall have a rated capacity of not more than one hundred (100) kilowatts.
- (2) *Shoreland and Mississippi River Critical Area Overlay Districts.* Freestanding and building mounted wind energy conversion systems shall be prohibited in the Shoreland and Mississippi River Critical Area Overlay Districts.
- (3) *Encroachments and setbacks.*
 - a. Wind energy conversion systems shall comply with applicable regulations as established by the Federal Aviation Administration.

- b. Wind energy conversion systems shall comply with the minimum yard requirements of the district in which they are located.
 - c. No part of any wind energy conversion system shall extend across or over any part of a public right-of-way.
- (4) *Compatibility with nearby properties.* Wind energy conversion systems shall utilize building materials, colors and textures that are compatible with the existing principal structure and that effectively blend the system facilities into the surrounding setting and environment to the greatest extent possible. Rotor blades shall be non-metallic to prevent communication signal interference. Metal towers shall be constructed of, or treated with, corrosive resistant material. Outside of the industrial districts, unpainted, galvanized metal, or similar towers shall be prohibited, unless a self-weathering tower is determined to be more compatible with the surrounding area.
- (5) *Controls and brakes.* All systems shall contain an internal governor or braking device which engages at wind speeds in excess of forty (40) miles per hour and minimizes the potential for wind damage to the equipment.
- (6) *Signage.* Advertising or identification of any kind on wind energy conversion systems shall be prohibited, except for applicable warning and equipment information signage required by the manufacturer or by federal, state or local regulations.
- (7) *Lighting.* Wind energy conversion systems shall not be illuminated by artificial means, except where the illumination is specifically required by the Federal Aviation Administration or other federal, state or local regulations.
- (8) *Noise.* Wind energy conversion systems shall comply with the standards governing noise contained in Chapter 389 of the Minneapolis Code of Ordinances, Noise, and with all other applicable regulations.
- (9) *Heritage Preservation Ordinance compliance.* Wind energy conversion systems proposed for any locally designated historic structures or locally designated historic districts shall be subject to all requirements of the city's Heritage Preservation Ordinance.
- (10) *Maintenance required.* All wind energy conversion systems shall be kept in good repair and free from rust, damaged supports, framework or other components. (2007-Or-047, § 2, 6-29-2007)

535.760. Abandoned or unused towers. All abandoned or unused wind energy conversion systems shall be removed within twelve (12) months of the cessation of operations unless an extension is approved by the city planning commission. If an extension is not approved, such wind energy conversion system shall be deemed a nuisance, and the city may act to abate such nuisance and require its removal at the property owner's expense. After the wind energy conversion system is removed, the owner or operator of the site shall restore the site to its original, or to an improved, condition.

WIND ENERGY CONVERSION SYSTEMS APPLICATION REQUIREMENTS CHECKLIST

Staff will accept only complete applications that include all of the items listed below and any specific application requirements. If any of the items are missing at the time of submittal, the application will be deemed incomplete.¹

	Pre-application meeting.
	Completed Application Worksheet.
	Correct fees paid (checks payable to Minneapolis Finance Department).
	A letter from the property owner, if other than the applicant, authorizing the application.
	Verification of historic status of property and submission of any required HPC application(s). ²
	An approved waiver from the restrictions of any applicable interim ordinance.
	Statement of proposed use and description of the project.
	Photos of the property and existing structures.
	An analysis from a licensed engineer showing how the wind energy conversion system shall be designed, constructed and operated in compliance with all applicable federal, state, and local laws, codes, standards and ordinances. At a minimum, lighting, height and noise must be addressed. The analysis must explain how the standards and ordinances will be met.
	A written certification from a licensed engineer confirming that the wind energy conversion system is designed to not cause electrical, radio frequency, television and other communication signal interference.
	Sufficient information demonstrating that the wind energy conversion system shall be used primarily to reduce on-site consumption of electricity, including but not limited to a complete listing of on-site electrical demands.
	Written evidence that the electric utility service provider that serves the proposed site has been informed of the applicant's intent to install a wind energy conversion system, unless the applicant does not plan, and so states so in the application, to connect the system to the electricity grid. Interconnection guidelines for Xcel Energy can be found at www.xcelenergy.com (Energy Partners > Electric Generation Owners > MN Interconnection Guidelines for Customer-Owned Generation).
	Written certification from a licensed engineer stating the wind power density for the specific site is Class 2 or greater as defined by the United States Department of Energy.
	One copy (at least one must be an 8 ½" x 11" copy) of photographic perspectives showing the structure and the placement of the wind energy conversion system.

Checklist continues on next page.

¹ City staff will review the initial application submission to determine completeness and will notify the applicant of what, if any, additional information must be submitted. Please be aware that supplemental information may also be requested during the evaluation and hearing process.

² Demolition of an existing structure requires an additional review by CPED staff to determine if the property is an historic resource.

Checklist continued.

<p>One copy (plus one 8 ½" x 11" copy) of scaled schematic drawings showing the structure and the placement of the wind energy conversion system. Must include the following:</p> <ul style="list-style-type: none"> ▪ Support structure, such as guy wires. ▪ Electrical wires. ▪ Method of discouraging unauthorized climbing (freestanding only). ▪ Materials and colors of all components, such as rotor blades, support structure, towers. ▪ Internal governor or braking device. ▪ Signage, if any. ▪ Lighting, if any.
<p>One copy (plus one 8 ½" x 11" copy) of a scaled and dimensioned site plan.³ Must include the following items:</p> <ul style="list-style-type: none"> ▪ All property lines. ▪ Streets and alleys. ▪ Adjacent uses (show location and identify if they are residential or nonresidential). ▪ Location of the proposed wind energy conversion system(s). ▪ On-site building footprints (including garages and other accessory structures). ▪ Parking areas. ▪ Walls, screens and fences (show location, type and height). ▪ Mechanical equipment (electrical transformers, private or public utilities, etc.) ▪ Overhead utility lines. ▪ Trees on-site (to remain and to be removed) and trees in the public right-of-way. ▪ Natural features and topography. ▪ Indicate north arrow and date the plan was drawn.

FEES

APPLICATION TYPE	FEE (DOLLARS)
Conditional use permits for wind energy conversion systems, regardless of lot area	670

After notification of a public hearing has taken place, a request by the applicant to continue an application to a subsequent public hearing of the city planning commission or board of adjustment shall be charged a fee totaling one hundred fifty dollars (\$150.00) when such request is granted. The fee shall be applied on a project-by-project basis and only when the continuance was requested by the applicant for the sole benefit of the applicant and when the Zoning Administrator determines that substantial additional staff time is required to review the project.

³ The site plan must be prepared by a certified architect, landscape architect, engineer, or land surveyor that is licensed in the State of Minnesota. A license stamp, or registration number, whichever is applicable, together with the signature, shall be provided on the face of the site plan. Site plan information may be combined with the survey of the property. *The requirement that one of the above professionals prepare the site plan may be waived by the Zoning Administrator, Planning Director or their authorized representative where the application does not involve a new principal structure, provided the plan is accurately dimensioned and is drawn to an architectural or engineering scale. Applications will not be accepted and permits will not be issued for a new principal structure if a survey is not provided.* If the project is subject to Chapter 530, Site Plan Review, it is recommended that the applicant provide a copy of the site plan review ordinance to the registered professional prior to preparation of a site plan.

APPLICATION WORKSHEET

Property Owner/Applicant	Name	
	Mailing Address Including City, State and Zip Code	
	Phone Number	
	Fax	
	Email	
Applicant's Representative <i>This person will be the primary contact for staff, and is the authorized agent in place of the property owner</i>	Name	
	Mailing Address Including City, State and Zip Code	
	Phone Number	
	Fax	
	Email	
Neighborhood Group Contact, if applicable <i>Be sure to include a copy of the letter or e-mail that was sent</i>	Organization	
	Contact Name	
	Phone Number	
	Date letter/e-mail sent	
Council Member Contact, if applicable <i>Be sure to include a copy of the letter or e-mail that was sent</i>	Name	
	Ward	
	Phone Number	
	Date letter/e-mail sent	
Property Information	Address(es)	
	Identification Number	
	Legal Description	
	Lot Area (square feet)	
	Zoning classification(s)	

Type of Wind Energy Conversion System <i>(circle one)</i>	Building Mounted		Freestanding	
	Wind Energy Conversion System Data	Capacity (kilowatts)		
Height (feet), refer to definition at the beginning of this application				
Distance between the ground and lowest vertical extension (feet)				
Materials (i.e. fiberglass, metal)		Rotor blades:	Color:	
		Tower:	Color:	
		Other:	Color:	
Building Data <i>If applicable</i>		Principal Use (circle one)	Residential	Nonresidential
	Building Height	Stories:	Feet:	
	Roof that the system is proposed to be installed on	Floor:		

ACCURACY DECLARATION

My signature attests to the fact that the attached application is complete and accurate to the best of my knowledge. I understand that the staff review of this application is dependent upon the accuracy of the information provided and that any inaccurate or inadequate information provided may delay review of my application or may result in denial of my request.

Property owner's signature (if different from applicant): _____

Applicant's name (please print): _____

Applicant's signature: _____