



City of Cleveland

Zoning Code Update

Effective Date: June 12, 2009

Chapter 354A — Wind Energy Facilities

354A.01 Purpose

These regulations are established to ensure that wind energy facilities will be developed and maintained in a manner that maximizes utilization of Cleveland's wind energy resources while protecting the public health, safety and welfare.

354A.02 Definitions

For the purposes of this chapter, the following terms shall have the meanings given in this section.

(a) "*Wind turbine*" means a wind energy conversion system that converts wind energy into electricity through use of a wind turbine generator and includes such elements as a wind turbine generator hub, blade or rotor, tower and transformer.

(b) "*Wind turbine hub*" means an electric power generator to which the blade or rotor of a wind turbine is attached.

(c) "*Wind energy facility*" means a wind turbine and such associated structures as substations, transmission lines and meteorological towers.

(d) "*Rotor radius*" means the distance between the center point of the rotor or blade and the outermost point on the rotor or blade.

(e) "*Turbine height*" means the distance between the base of the tower or other supporting structure, whether mounted on the ground or on a rooftop, and the outermost point of the rotor or blade at its maximum vertical extension.

(f) "*Lattice Tower*" means a tower constructed of vertical metal struts and cross braces forming a square or triangular structure that tapers from the foundation.

(g) "*Monopole Tower*" means a tower constructed of a single, self-supporting metal tube, anchored to a foundation.

354A.03 Applicability

(a) General Applicability. No "wind energy facility" shall be erected, enlarged or extended without conformance to the provisions of this chapter, and other applicable regulations, as evidenced by the issuance of a Building Permit by the Department of Building and Housing Department and, where required, approval by the City Planning Commission.

(b) City Planning Commission Approval. Approval by the City Planning Commission in accordance with the provisions of this chapter shall be required for all ground-mounted wind turbines that exceed the height limit for main buildings on the subject property and for rooftop-mounted wind turbines that exceed the height limit set in Section 345A.04. For wind energy facilities not subject to such City Planning Commission approval by the provisions of this chapter but located in a Design Review District, review and approval by the City Planning Commission or its Director shall be made in accordance with the provisions of Chapter 341 regarding Design Review Districts.

(c) Landmarks Commission Approval. For wind energy facilities proposed for locations in Landmark Districts or on individually designated Landmark properties, the Landmarks Commission shall substitute for the City Planning Commission in all responsibilities assigned to the City Planning Commission by the provisions of this chapter.

354A.04 Location, Setbacks and Height

(a) Zoning Districts. Wind energy facilities may be located in any Zoning District as either an accessory use or a principal use, subject to the restrictions and requirements of this Chapter.

(b) Setbacks for Ground-Mounted Wind Turbines.

- (1) *General.* A ground-mounted wind turbine shall be set back from all property lines, street right-of-way lines, and overhead utility lines a minimum distance equal to 1.1 times the height of the wind turbine. Turbine setbacks shall be measured from the center of the wind turbine base. With respect to an overhead utility line that provides service only to a single building or a single parcel of land, the setback requirement shall be met if the turbine is placed so that no portion of a rotor blade extends closer than five (5) feet to the utility line.

(2) ***Residential.*** With respect to proximity to Residential District lines, a wind turbine, including a wind turbine located in a Residential District, shall be set back from Residential District lines of adjoining or nearby properties a minimum distance equal to two (2) times the height of the wind turbine. In the case of a wind turbine that does not exceed thirty-five (35) feet in height and is located in a Residential District, the wind turbine shall be set back at least fifteen (15) feet from all property lines, and no portion of a rotor blade shall extend closer than five (5) feet to any lot line.

(c) Height. The height of a ground-mounted wind turbine shall be limited by the setback requirements of this section. The height of a rooftop or other building-mounted wind turbine shall not exceed the maximum permitted building height for the property by more than twenty percent (20%). For a rooftop or other building-mounted wind turbine that exceeds the maximum permitted building height by more than 20%, the City Planning Commission, after a public hearing, may approve a greater height if the Commission determines that the placement of the turbine and context of the turbine site will mitigate any significant negative visual or safety impacts on nearby properties.

354A.05 Lighting, Design and Noise

(a) Lighting. Wind turbines shall not be illuminated except as required by the Federal Aviation Administration or other applicable authority or by the provisions of Chapter 633 of these Codified Ordinances. The City Planning Commission may, however, approve lighting in other instances if it determines that the proposed lighting will enhance the appearance of the wind turbine and will not result in nuisances or hazards on nearby properties or streets. If lighting is required, a design that minimizes disturbances to nearby residences shall be utilized.

(b) Structural Design. Wind turbines shall be designed to meet all requirements of the Building Code of the City of Cleveland and all applicable state and federal regulations.

(c) Aesthetic Design. Wind turbines shall be designed in a manner that makes them as visually unobtrusive as possible, while meeting safety requirements. To this end, towers shall be monopole rather than lattice design, wherever feasible. With respect to color, wind turbines, shall be white, off-white or unpainted metal, unless other colors are required by federal regulations or the provisions of Chapter 633 or unless another color is approved by the City Planning Commission as being more effective or more appropriate in a particular instance.

(d) Signs. No signs shall be located on or around a wind turbine except for necessary warning signs or informational signs located at or near ground level. Such signs may include information of an educational nature or information identifying the manufacturer or installer of the wind turbine but shall not include any off-premise advertising or any advertising for businesses or other activities located on the premises. No more than two permitted signs shall be located on or around each wind turbine. The total area of such signs shall not exceed twenty (20) square feet, except that no sign shall

exceed four (4) square feet if located on a property in a Residential District, unless that property is occupied by a community facility use, in accordance with the regulations of Chapter 350. Free-standing signs shall not exceed a height of five (5) feet, and the setback of such signs shall be in accordance with the regulations of Chapter 350 for the zoning district in which the turbine is located.

(e) Noise. No wind turbine shall produce noise that violates the provisions of Section 605.10 by unreasonably disturbing the quiet, comfort or repose of neighboring inhabitants. Furthermore, no wind turbine shall produce noise that routinely exceeds a level of 50 decibels when measured at the nearest property line of a Residential zoning district. The applicant for installation of a wind turbine shall submit a statement by an engineer licensed in the State of Ohio certifying that the proposed wind turbine will meet this noise standard with respect to impacts on properties in nearby Residential zoning districts.

354A.06 Application and Approval Process

(a) Submission of Application. An application to construct or alter a wind energy facility subject to the regulations of this chapter shall be submitted to the Department of Building and Housing as part of a Building Permit application.

(b) Determination of Compliance. The Department of Building and Housing shall determine if the application conforms to requirements of this chapter and other applicable regulations of the City of Cleveland, except for those provisions that require a determination by the City Planning Commission under provisions of this chapter.

(c) Referral to City Planning Commission. For proposals subject to approval by the City Planning Commission, under Section 354A.03(b), the Department of Building and Housing shall refer the application to the City Planning Commission for review and approval.

(d) City Planning Commission Action. The City Planning Commission shall review any application subject to its approval under provisions of this chapter and shall determine whether the proposal meets all applicable standards established in this chapter to ensure appropriate appearance and compatibility with surrounding uses. The Commission shall take action on the application at a public meeting, subsequent to providing public notice, as provided in division (e) of this section. The Commission may require modifications to the proposal as a condition of approval. The Commission may disapprove an application if it determines that the proposed location does not meet the standards set forth in this chapter and that a suitable alternative location is available.

(e) Notice Requirements. Prior to taking action on a wind turbine application subject to its approval under provisions of this chapter, the City Planning Commission shall mail notices describing the proposal to all owners of property located within a distance of the wind turbine equal to three (3) times the height of the structure in the case of a ground-mounted structure and to all owners of property

located within one hundred (100) feet of the wind turbine in the case of a rooftop-mounted structure. Such notice shall be sent by first-class mail or equivalent method at least ten (10) calendar days prior to the date of the public meeting. The Commission shall also provide notice at the same time to any Councilmember who represents an area in which notices are to be mailed to property owners

(f) Permit Issuance. The Department of Building and Housing shall issue the required permits if it determines that the application conforms to requirements of this chapter and other applicable regulations of the City of Cleveland, and if it has been approved by the City Planning Commission where such approval is required.

354A.07 Contents of Application

All applications subject to the provisions of this chapter shall be accompanied by the following information, as applicable, in addition to information required for all Building Permit applications.

(a) Ground-Mounted Wind Turbines. In addition to information required by other provisions of these Codified Ordinances, the following information shall be submitted with an application for a ground-mounted wind turbine and accessory structures in to demonstrate compliance with the provisions of this chapter.

- (1) a site plan of the subject property showing adjoining streets, the proposed turbine and any proposed and existing buildings, fencing, structures, landscaping, driveways, parking, and curb cuts on the subject property, including specifications for all proposed landscaping.
- (2) an elevation drawing showing the proposed wind turbine and all structures and landscaping shown on the required site plan, indicating the height, color and materials of the tower and all proposed fencing and other structures.
- (3) where lighting of the wind turbine is proposed, a lighting plan for the proposed wind turbine, indicating the location, color and intensity of the lighting, both as it will appear in daylight and at night, and indicating any mechanisms to prevent glare on adjacent properties and streets and to shield the lighting from residences, to the maximum extent feasible.
- (4) for any wind turbine that will exceed the height limit for buildings on the subject property, a vicinity map showing the subject property and the proposed wind turbine and fencing in the context of all property located within a distance from the turbine equal to three times the height of the turbine, showing within this area, all streets and existing buildings and significant structures and indicating the residential use of any buildings and any property zoned in Residential or Landmarks Districts, such map being marked with topographic contours at five-foot intervals.
- (5) for any wind turbine that will exceed the height limit for buildings on the subject property, color photographs showing the current view of the wind turbine site from any adjoining public street or any other street within 200 feet of the proposed wind turbine and from the closest groupings of residential buildings located within an area from the proposed wind turbine equal to three (3) times the height of the proposed structure, plus a second set of color photographs showing the

same views with the proposed wind turbine superimposed onto the photographs.

- (6) a statement by an engineer licensed in the State of Ohio certifying that the proposed wind turbine will meet the noise standard of this ordinance with respect to impacts on properties in nearby Residential zoning districts.
- (7) a statement indicating the estimated construction cost of the wind turbine and a statement indicating the estimated cost for demolition and removal of the wind turbine.
- (8) a performance bond or equivalent financial instrument, if required, sufficient to cover the estimated demolition and removal of the wind turbine.

(b) Rooftop-Mounted Wind Turbines. In addition to information required by other provisions of these Codified Ordinances, the following information shall be submitted with an application for a wind turbine proposed to be attached to the roof of a building or to another structure and subject to approval by the City Planning Commission under provisions of this chapter.

- (1) an elevation drawing of the building or structure to which the proposed wind turbine will be attached, showing the placement of the wind turbine and indicating the color of the structure and in any enclosures in relation to the color of the surface to which it will be attached and showing the projection of the wind turbine from the structure, marked with all necessary dimensions.
- (2) color photographs of the building or structure to which the proposed wind turbine will be attached, with the proposed wind turbine superimposed onto such photographs, showing various perspectives from which the wind turbine will be viewed.
- (3) a statement by an engineer licensed in the State of Ohio certifying that the proposed wind turbine will meet this noise standard of this ordinance with respect to impacts on properties in nearby Residential zoning districts.

354A.08 Maintenance and Abandonment

(a) Maintenance and Monitoring. All buildings, structures, fences, and property used in connection with a wind energy facility shall be maintained in good condition and in safe working order. On each biennial anniversary of the issuance of the Certificate of Occupancy for a wind turbine, or not more than ninety (90) days prior to that date, the permit holder for such wind energy facility shall submit to the Director of Building and Housing an affidavit that verifies continued operation of the wind turbine use and compliance with all requirements of this chapter and other applicable governmental regulations.

(b) Abandonment.

- (1) *Performance Bond.* At all times the holder of a permit for a ground-mounted wind turbine shall maintain a performance bond or equivalent financial instrument sufficient to cover the demolition and removal of the wind turbine. Such bond or other instrument shall be sufficient to guarantee full and faithful performance of the requirements of this chapter and shall be satisfactory to the Director of Building and Housing and the Director of Law. On each biennial anniversary of the issuance of the Certificate of Occupancy for a wind turbine, or not more than ninety (90) days prior to that date, the permit holder shall provide to the Director of Building and Housing proof that the performance bond requirements of this section are met. The requirement for a performance bond or equivalent financial instrument shall not apply in the case of a wind turbine that does not exceed thirty-five (35) feet height.

- (2) *Notice.* Not less than thirty (30) days after abandoning or discontinuing operation of a wind turbine, the permit holder shall send written notice of this fact to the Director of Building and Housing.

- (3) *Removal.* If use of a wind turbine has been discontinued for 180 consecutive days, the facility shall be deemed abandoned. Within ninety (90) days of abandonment, the permit holder or other responsible party shall remove the abandoned structures and shall restore the site to an attractive landscaped condition. If such actions are not taken, the City may cause the removal of all structures at the expense of the permit holder or other responsible party.

354A.09 Existing Nonconforming Facilities

A wind energy facility lawfully existing on the effective date of this chapter or any amendment thereto may be continued in accordance with the regulations of Section 359.01 of this code even if such facility does not conform to the provisions of this chapter, but such tower shall not be made more nonconforming unless the alteration is approved as a zoning variance by the Board of Zoning Appeals.