

## **164-35.1 Commercial and Non-Commercial Wind Energy Facilities**

### **A. Purpose**

The purpose of this bylaw is to minimize the adverse impacts of wind turbines on the character of neighborhoods, property values, scenic, historic, environmental resources of the Town; and to protect health and safety while allowing wind energy technologies to be utilized.

### **B. Applicability**

Any application to erect a structure that utilizes energy from the wind shall comply with this section.

### **C. Definitions**

As used in this section, the following terms shall have the meanings indicated:

**WIND FACILITY** - All equipment, machinery and structures utilized in connection with commercial and non-commercial wind-generated energy production and generation, including related transmission, distribution, collection, storage or supply systems whether underground, on the surface or overhead, and other equipment or byproducts in connection therewith and the sale of the energy produced thereby, including but not limited to, wind turbine (rotor, electrical generator and tower), anemometers (wind measuring equipment), transformers, substation, power lines, control and maintenance facilities, site access and service roads.

For purposes of this definition, the term “commercial” shall mean those facilities which have less than fifty percent (50%) of their electrical output used on site.

**WIND TURBINE** - Equipment used in wind-generated energy production. Wind turbines capture the kinetic energy of the wind and convert it into electricity. Primary components are the rotor (blade assembly), electrical generator, and tower. Wind turbines are mounted on lattice or tubular steel towers.

### **D. Requirements**

1. No Wind facility shall be erected, constructed or installed without approval under 164-33, Site Plan Review and the issuance of a Special Permit from the Zoning Board of Appeals.
2. Minimum lot area. Wind facilities shall be located on a parcel of land that contains at least 5 acres of land, of which at least 4 acres must be buildable upland.
3. Height. The height of any wind turbine as measured from average grade shall be less than three hundred (300) feet and have a minimum blade clearance from the ground immediately below each wind turbine of thirty (30) feet. A waiver from this provision may be granted if the Zoning Board of Appeals makes a finding that the additional height is necessary for adequate operation of the wind facility.

4. Height calculation. For purposes of calculating the overall height of a wind turbine, the total height shall be measured from average grade to the uppermost extension of any blade or the maximum height reached by any part of the wind turbine.
5. Setbacks from adjacent parcels. A minimum setback for each wind turbine shall be maintained equal to the overall engineer designed fall zone plus one hundred (100) feet, or three hundred (300) feet, whichever is greater, from all boundaries of the site on which the wind facility is located.
6. Fencing. Shall be provided to control access to the site of the wind turbine and related structures.
7. Signs. There shall be no signs except a sign identifying the wind facility, the owner and operator and an emergency telephone number; no-trespassing signs; and any signs required to warn of danger. All signs shall comply with the requirements of the Zoning Bylaw.
8. Noise. Except during short-term events such as high windstorms or utility outages, noise from the proposed wind turbine shall not exceed 60 dBA as measured from the nearest property line. This standard can be achieved through a six hundred (600) foot setback from any property line or must be otherwise demonstrated by the applicant through scientific analysis to the satisfaction of the Zoning Board of Appeals.
9. Removal. The owner shall remove any wind facility that's use has been abandoned or discontinued for 12 months. If removal is required, all wind turbines and appurtenant structures shall also be removed and the wind facility site shall be re-vegetated. The Zoning Board of Appeals may require that an escrow account be established and annual deposits made to ensure adequate funds are available for removal.
10. Communications. A wind turbine may be used as a communication structure, subject to the requirements of Section 164-39 herein.

**E. Non-Commercial Wind Facilities**

When issuing a Special Permit for a non-commercial wind facility, the Zoning Board of Appeals may waive any of the requirements of Section D., provided the Board finds that the criteria for issuance of a Special Permit as set forth in Section 164-44 are met.