

## DEFINITIONS

- 1.161 **Wind Turbine** means a turbine that converts the wind's kinetic energy into either electrical power or mechanical energy. The turbine comprises the tower, rotor blades (either vertical or horizontal) and nacelle.
- 1.161.1 **Blade Clearance** means the distance between the bottom tip of the rotor blade and the ground.
- 1.161.2 **Climbing Apparatus** means the ladder located on the turbine tower used for climbing and maintaining the turbine.
- 1.161.3 **Decommissioning** means the final closing down of a wind generation development or project or the point at which an individual wind turbine or grouping of turbines have reached the end of their operational life and the process by which the site is restored to an agreed use or condition.
- 1.161.4 **Kilowatt (kW)** means a measure of power for electrical current (1kW = 1,000 watts).
- 1.161.5 **Large-scale Wind Turbine** means a wind turbine that has a rated output capacity greater than 100 kilowatts.
- 1.161.6 **Nacelle** means the frame and housing at the top of the tower that encloses the gearbox and generator and protects them from the weather.
- 1.161.7 **Rotor Blade** means the part of the wind turbine that rotates in the wind and extracts kinetic energy from the wind.
- 1.161.8 **Small-scale Wind Turbine** means a wind turbine that has a maximum rated output capacity of no greater than 100 kilowatts.
- 1.161.9 **Wind Monitoring (Meteorological) Tower** means a tower used for supporting wind monitoring equipment to assess the wind resource at a predetermined height above the ground.
- 1.161.10 **Wind Turbine Height** means the height from grade to the highest vertical extension of a wind turbine which often occurs at the top of the arc of the rotor blade.
- 1.161.11 **Wind Turbine Tower** means a freestanding structure or a structure attached to guy wires that serves to support other parts of the wind turbine.

**10.1.6 Siting of Large-Scale Wind Turbines**

- 10.1.6.1 One or more Large-Scale Wind Turbines shall be permitted in an A1, F1, R6 or S1 Zone, except on properties within the Grand Pré and Area Plan boundary, subject to the following:
- a. the blade clearance shall be a minimum of 25 feet;
  - b. the minimum separation distance between wind turbines shall be equal to or exceed the height of the tallest turbine;
  - c. the wind turbine(s) shall be setback a minimum of one (1) times the turbine height from rear, front and side lot lines, public rights-of-way and coastlines;
  - d. where a lot located immediately adjacent to and abutting a lot where a large-scale wind turbine is to be erected will be used for wind turbine development and the turbines on both properties are part of the same proposal, the setback requirement (contained in Section 10.1.6 c.) from the shared property line shall be reduced to zero;
  - e. the wind turbine(s) shall be located a minimum of 2300 feet (700 m) from any dwelling on a neighbouring property. This separation distance does not apply to a dwelling on the same property on which the large-scale wind turbine is installed or a dwelling on a neighbouring property containing a wind turbine that is part of the same proposal;
  - f. notwithstanding 10.1.6.1 e. above, where a dwelling is constructed within the required separation distance of a large-scale wind turbine development, the wind turbine development may expand. The required separation distance for any expansion shall be equal to or greater than the separation distance between the initial wind turbine development and the dwelling;
  - g. a development permit may be issued for one or more large-scale wind turbines to be located on a lot which does not front on a public street provided proof of access can be demonstrated;
  - h. the wind turbine shall be finished in a non-reflective matte and in an unobtrusive colour;

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Current to January 19, 2012

- i. the only artificial lighting permitted on the wind turbine is lighting that is required by federal or provincial regulation;
- j. no signage shall be permitted on the wind turbine except that of the manufacturer's identification;
- k. the owner(s) of the land on which the wind turbines are located shall notify the Municipality of Kings County within one (1) year of wind turbine inactivity and shall remove the wind turbines and associated infrastructure within two (2) years of wind turbine inactivity.

10.1.6.2 Upon application for a development permit for a large-scale wind turbine, the developer shall submit the following documentation:

- a. the project definition including installed turbine(s) capacity, targeted long term production levels, scale elevations or photos of wind turbines showing total height, tower height, rotor diameter and colour;
- b. a site plan showing all buildings, roads, boundaries, natural features and alterations of site;
- c. wind turbine manufacturer's specifications and professional engineer's design and approval of turbine base(s);
- d. copies of all documentation required for *Canadian Environmental Assessment Act* and *Nova Scotia Environment Act* and regulations, if applicable;
- e. evidence of notification to and approval from Department of National Defence, Nav Canada, Transport Canada or other applicable agencies regarding potential radio, telecommunications and radar interference, if applicable;
- f. an emergency response plans for site safety;
- g. a decommissioning and reclamation plan; and
- h. any other information the Development Officer deems necessary to determine whether the development conforms to this Bylaw.

10.1.7 **Siting of Wind Monitoring (Meteorological) Tower**

- 10.1.7.1 One or more Wind Monitoring (Meteorological) Towers shall be permitted in M2, M3, M4, M5, M6, M7, A1, F1, S1, S2, CS, R6, R7, R8, O2 Zones subject to the following criteria:
- a. A minimum separation distance between towers shall be equal to or exceed the height of the tallest tower.
  - b. The setback shall be, at minimum, equal to the tower's total height from rear, front and side lot lines, public parking lots and public rights-of-way.
  - c. For properties that abut an A1, F1, or O1 zone, the rear and side setback in common with the A1, F1, or O1 zone may be reduced by 50% if the wind monitoring tower is no closer than the total height of the tower from all structures on the neighbouring property.
  - d. Any climbing apparatus shall be a minimum of 10 feet above grade.
  - e. The wind monitoring tower shall not be located within a radius measuring 300 feet or 3 times the overall height of the tower from a residential dwelling on a neighbouring property, whichever is greater.
  - f. In addition to the application for a development permit, the following items are required:
    - Provide the manufacturer's information including: type of tower and total height;
    - Provide a site plan showing the location of the wind monitoring tower(s) in relation to lot lines, dwelling on property and distance from adjacent dwellings;
    - Submit any necessary authorisation documents from Transport Canada and NavCan;
    - Submit an Environmental Impact Assessment (only for sites located all or in part in an O2 Zone); and
    - Submit tower and base designs certified by an engineer licensed to practice in Nova Scotia, and applicable letters of undertaking.

EXCERPTS FROM BYLAW # 75 - COUNTY OF KINGS LAND USE BYLAW  
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- g. There shall be no signs or advertisements attached to or added to the tower(s).
- h. The owner(s) of the land on which the wind monitoring tower is located shall notify the Municipality of Kings County within one (1) year of removing the wind monitoring tower.