

**CORPORATION OF THE  
TOWNSHIP OF WARWICK  
ZONING BY-LAW 30 OF 2008**

**(Being a By-law to amend By-law 54 of 2000)**

**WHEREAS** the Council of the Corporation of the Township of Warwick passed a comprehensive Zoning By-law 54 of 2000 on the 11<sup>th</sup> day of October, 2000;

**AND WHEREAS** the Council of the Corporation of the Township of Warwick deems it desirable to amend the said By-law;

**NOW THEREFORE**, the Council of the Corporation of the Township of Warwick enacts as follows:

1. Section 2 of By-law 54 of 2000, *Definitions*, is hereby amended by adding the following definitions, inserted among the existing definitions according to alphabetical order:
  - a) **METEOROLOGICAL MAST** means a separate, guyed tower having instruments mounted thereon for the purpose of assessing a site's wind characteristics on a temporary basis of up to three years or for assessing the performance of a wind turbine or farm once erected.
  - b) **WIND FARM** means a Lot having Wind Turbines located thereon that meet the criteria for defining a Lot as a Wind Farm under Sections 3.31.1 i) and j).
  - c) **WIND TURBINE** means a tubular or latticed, guyed or freestanding tower having located thereon a generator, which converts wind energy into electricity. A wind turbine, tower, foundation and any appurtenances are manufactured and erected with consideration for site soil conditions and in accordance with CSA standards, engineered design and/or applicable industry standards. This definition shall include Structures Accessory thereto.
  - d) **WIND TURBINE, ACCESSORY** means a Wind Turbine that produces electricity primarily for use on the Lot on which it is located or to produce credits for use on another Lot under the same ownership as the Wind Turbine operator. Although it may be connected to the utility grid and/or practice net metering, it does not produce electricity for sale to the utility grid.
  - e) **WIND TURBINE, COMMERCIAL** means a Wind Turbine that produces electricity primarily for profit by sale to the utility grid.
  - f) **WIND TURBINE, DERELICT** means a Wind Turbine that is no longer operable; exhibits signs of compromised structural integrity; has rusted, missing or damaged parts; has not been operated for a period of one year or more; is no longer fit to produce electricity; or no longer meets applicable safety standards.

2. Section 3.1 of By-law 54 of 2000, *Uses Permitted in all Zones*, is hereby amended by adding the following provision:

### **3.1.7 Wind Turbines & Meteorological Masts**

Accessory Wind Turbines shall be Permitted in all Zones. Meteorological Masts shall be Permitted in all Zones except for Residential Zones.

3. Section 3.2 of By-law 54 of 2000, *Uses Prohibited in all Zones*, is hereby amended by adding the following provision:

h) A Derelict Wind Turbine

4. Section 3.16 to By-law 54 of 2000, *Height Restrictions*, is hereby amended by deleting the word “and” and inserting the text “; and n) a Wind Turbine” following “a water tower”.

5. Section 5.1 c) of By-law 54 of 2000, *A1 Zone Permitted Uses*, is hereby amended by adding “Commercial Wind Turbines, but not a Wind Farm” as a permitted use, inserted according to alphabetical order.

6. Section 21.1 a) of By-law 54 of 2000, *Extractive Industrial M4 Zone Permitted Uses*, is hereby amended by adding “Commercial Wind Turbines, but not a Wind Farm” as a permitted use, inserted according to alphabetical order.

7. Section 3.16 of By-law 54 of 2000, *Special Setback Provisions*, is hereby amended by adding the following subsection:

### **3.16.7 Setbacks from Wind Turbines & Meteorological Masts**

With the exception of the setback described in **Sections 3.31.1 g) iii)**, the Erection of a Livestock Facility and the Erection of a Dwelling on a Lot in a Residential Zone, if there is any Setback, under **Section 3.31**, that a Wind Turbine or Meteorological Mast is required to meet from a Structure, Use or Zone, the establishment or expansion of any such Structure, Use or Zone shall meet the same Setback from a Meteorological Mast or a Wind Turbine, if the Wind Turbine has a rotor diameter greater than 6m.

8. Section 3 of By-law 54 of 2000, *General Provisions*, is hereby amended by adding the following Section:

## **3.31 WIND TURBINES AND METEOROLOGICAL MASTS**

### **3.31.1 Wind Turbines**

#### Measurement

- a) Unless expressed otherwise, Wind Turbine height shall be measured from the ground, Structure or foundation on which the Wind Turbine tower rests to the centre of the rotor hub in the case of hub height or to the uppermost reach of the rotor blades in the case of total tower height.
- b) Setbacks specific to Wind Turbines shall be measured to centre of tower base. Other parts, including rotor blades, or Accessory Uses to a

Wind Turbine shall be subject to the Setbacks applicable to other Uses in the applicable Zone.

Size – Height – Number per Lot

- c) Maximum rotor diameter of a Wind Turbine shall be:
  - i). 4m in a Residential Zone.
  - ii). Equal to 1.3 times hub height in an A1 or M4 Zone.
  - iii). 12m in all other Zones.
- d) Maximum hub height from grade of a Wind Turbine shall be:
  - i). 31m in a Residential Zone or on a Lot abutting a Residential Zone.
  - ii). 110m in an A1 or M4 Zone.
  - iii). 45m in any other Zone.
- e) Other than a Permitted Wind Farm, no more than 2 Wind Turbines shall be located on any one Lot.
- f) Wind Turbines shall have a minimum hub height of 20m above grade.

Setbacks - Location

- g) Wind Turbines shall be Erected in compliance with the following minimum Setbacks:
  - i). total tower height from any Building on a separate Lot, Road Allowance, or above-ground public utility lines.
  - ii). the lesser of hub height or 50m from a Lot Line other than a Road Allowance, or for a Wind Turbine with a rotor diameter of 6m or less, half hub height from a Lot Line abutting a cropped or pastured area in an Agricultural Zone.
  - iii). 600m from any contiguous group of four or more Lots primarily in a non-Agricultural Zone, for a Wind Turbine with a rotor diameter greater than 12m or a hub height greater than 45m.
  - iv). 200m from a Livestock Facility on a separate lot, other than a Manure Storage Facility, for a Wind Turbine with a rotor diameter greater than or equal to 12m.
  - v). 250m from a Dwelling on a separate Lot, for a Wind Turbine with a rotor diameter less than 12m.
  - vi). 400m from a Dwelling on a separate Lot, for a Wind Turbine with a rotor diameter greater than or equal to 12m.
- h) Wind Turbines shall not be located in a Required Front or Exterior Side Yard.
- i) Where a separate Lot does not have a Dwelling located thereon, any Wind Turbine with a rotor diameter greater than or equal to 12m shall

be located at a minimum Setback of 400m from the 50m that abuts that Lot's entire Front Lot Line.

#### Wind Farms

- j) Any Lot having a Wind Turbine with a rated name plate capacity greater than 40kW and exceeding either of the following shall be considered a Wind Farm:
  - i). 500 kW rated name plate capacity, or
  - ii). 25.5 kW rated name plate capacity per hectare of Lot Area.
- k) Any Lot where the combined rated name plate capacity of the Wind Turbines located thereon is greater than 80kW and exceeds either of the following shall be considered a Wind Farm:
  - i). 800 kW rated name plate capacity per Lot, or
  - ii). 40 kW rated name plate capacity per hectare of Lot Area.

#### **3.31.2 Meteorological Masts**

- a) A Meteorological Mast's base shall be located a minimum of the tower's height from a Lot Line and 250m from a Dwelling on a separate Lot.
- b) Maximum height of a Meteorological Mast shall be 100m from grade.

#### **3.31.3 General**

- a) No advertising Signs except a manufacturer's logo shall be Permitted on a Wind Turbine or Meteorological Mast at a height greater than 6m above grade.
- b) The same minimum Setbacks that apply to Wind Turbines and Meteorological Masts in respect to a Dwelling on a separate Lot shall also apply with respect to the following:
  - i). Vacant Lots in a Residential (R) Zone
  - ii). Institutional (I) Zones or Institutional Uses
  - iii). Open Space 1 (OS1) Zones
  - iv). Open Space 2 (OS2) Zones
- c) Wind Turbines and Meteorological Masts shall not be Permitted in the following Zones:
  - i). Environmental Protection - Hazard (EP-H) Zones
  - ii). Environmental Protection - Wetland (EP-WET) Zones
  - iii). Environmental Protection - Woodlot (EP-WD) Zones

9. This By-law shall come into force and effect pursuant to Sections 34 (21) or Section 34 (30) of the Planning R.S.O. 1990.

READ A FIRST AND SECOND TIME THIS \_\_\_<sup>th</sup> DAY OF \_\_\_\_\_, 2008.

**READ A THIRD TIME AND FINALLY PASSED THIS \_\_\_<sup>th</sup> DAY OF \_\_\_\_\_, 2008.**

\_\_\_\_\_  
**MAYOR – Todd Case**

\_\_\_\_\_  
**ADMINISTRATOR-TREASURER – Don Bruder**

**CORPORATION OF THE  
TOWNSHIP OF WARWICK  
ZONING BY-LAW NO. 30 OF 2008**

**Explanatory Note**

The purpose of this Zoning By-law Amendment is to establish zoning provisions for wind turbines and meteorological masts (wind test towers) in the Township of Warwick. Wind turbines producing electricity primarily for use on the lot itself would be permitted in any zone except an environmentally sensitive zone. Turbines producing power for sale would be permitted only in Agriculture A1 and Extractive Industrial M4 Zones. Meteorological masts would be allowed in all zones except those for residential and environmentally sensitive areas.

Maximum permitted rotor diameter is 4m in a residential zone and 12m in other zones, except A1 and M4 Zones where maximum rotor diameter equals 1.3x hub height. Maximum hub height is 31m in a residential zone, 110m in an A1 or M4 Zone, and 45m in all other Zones.

Inability to comply with additional setback requirements will in fact impose greater restrictions on permitted turbine size on many lots. A turbine must be located at a hub height of at least 20m.

Setbacks equal to hub height (to a maximum setback requirement of 50m) generally apply to lot lines. Where the abutting use is cropland in an Agricultural Zone, the setback for a turbine with a rotor diameter less than 6m is ½ hub height. Setbacks equal to total tower height (including blades) apply from buildings on separate lots, road allowances and suspended utility lines, regardless of rotor size.

Turbines with hub heights greater than 45m or rotor diameters greater than 12m must be 600m or more from an urban area (4 or more abutting lots in non-agricultural zones). Turbines with rotor diameters over 12m must be 400m from a neighbour's house and must leave a 50m band along the front lot line of abutting vacant lots that is outside the 400m setback to allow for the potential placement of a house. Turbines with rotor diameters less than 12m must be set back at least 250m from a neighbour's house. Such setbacks also apply to vacant lots in residential areas, Institutional uses and Zones, and Open Space Zones. A 200m setback is required from livestock barns on a separate lot.

No more than 2 turbines are permitted on a single lot without rezoning. The maximum turbine size per lot without rezoning, if the turbine exceeds 40kW, is 500kW or 25.5 kW/Ha. The maximum total name plate capacity of all turbines on a lot without rezoning, if the total is greater than 80kW, is 800kW or 40kW/Ha.

Setbacks that wind turbines and meteorological masts must meet from various uses apply reciprocally in that those uses must meet the same setbacks from meteorological masts and wind turbines with rotor diameters greater than 6m.

Livestock barns, urban extensions and construction on residentially designated lands are exceptions.

Meteorological masts must be set back from lot lines a distance equal to tower height and 250m from a neighbour's house and are limited to 100m in height.

Amendments to the site plan control by-law are being made to specify that wind turbines with rotor diameters >6m or hub heights >31m are subject to site plan control.

A separate by-law is being passed under Section 130 of the Municipal Act, 2001, as amended, to give the municipality some controls in respect to other aspects of wind turbines including colour, light and noise emissions, for example.

No other amendments in relation to wind turbines or meteorological towers are being considered at this time.

No key map is provided, as the amendment affects the entire municipality.