

**Land Use By-law for the**  
**COUNTY OF ANTIGONISH**

*Concerning the Regulation of Wind Turbine  
Development*



June, 2009

**Land Use By-law**

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## **PART 1. TITLE AND PURPOSE**

### **TITLE**

- 1.1 This By-law shall be known and may be cited as the Land Use By-law, for the Municipality of the County of Antigonish. Hereinafter, “By-law” shall refer to the Land Use By-law, and “County” shall refer to the Municipality of the County of Antigonish.

### **PURPOSE**

- 1.2 The purpose of this By-law is to carry out the purpose and intent of the Municipal Planning Strategy in accordance with the provisions of the Nova Scotia Municipal Government Act by regulating the development of wind turbines. This By-law shall apply to the Municipality of the County of Antigonish.
- 1.3 This By-law does not exempt any person from complying with other by-laws or regulations in force within the County, including the existing Secondary Planning Strategies, or from obtaining any license, permission, permit, authority or approval required there under. Where any provisions of this By-law conflicts with those of any other Municipal, Provincial or Federal regulation, by-law or code, the more stringent requirement shall prevail.

## **PART 2. ADMINISTRATION**

### **EFFECTIVE DATE**

- 2.1 This By-law shall take effect upon advertisement in the local newspaper following the approval of the Minister of Service Nova Scotia and Municipal Relations for the Province of Nova Scotia.

### **REQUIREMENT FOR DEVELOPMENT PERMIT**

- 2.2 No person shall undertake, or cause or permit to be undertaken, any wind turbine development in the area to which this By-law applies unless a development permit has been obtained in relation to such development from the Development Officer.

### **NO PERMIT REQUIRED**

- 2.3 A development permit is not required for any development except for wind turbine development, subject to existing designations in the Secondary Planning Strategies.

### **DEVELOPMENT OFFICER**

- 2.4 This By-law shall be administered by the Development Officer appointed by the Council of the County, and the Development Officer shall issue development permits under this By-law.
- 2.5 The Development Officer shall keep records of all applications received, permits and orders issued; inspections made, and shall retain copies of all papers and documents in connection with the administration of the By-law, which shall form part of the public records of the County.

### **REQUIREMENT FOR APPLICATION**

- 2.6 Every person wishing to obtain a development permit must submit an application for such development permit to the Development Officer in the form prescribed from time to time by council.

### **CONTENTS OF APPLICATION**

- 2.7 Every application for a development permit shall be signed by the owner of the property or his or her agent and accompanied by:
- 2.7.1 A site plan drawn to an appropriate scale and showing:

- The true shape and dimension of the lot to be used or upon which the development is proposed, including significant natural features;
- The location of any watercourse and location of any existing or proposed building or structure in relation to the watercourse;
- The proposed location, height and dimensions of any building or structure for which the permit is applied and the location information shall include measurements of the lot frontage and front, side and rear yards;
- The location of the structure(s) in relation to lot lines, dwelling and distance from adjacent dwellings, clearly showing that the turbine falls within the setbacks prescribed in this By-law; and
- Other such information as may be necessary to determine whether or not the proposed development conforms with the requirements of this By-law.

2.7.2 In addition to the site plan, the following supplementary documentation is required for all wind turbines:

- The turbine manufacturer's specifications and Canadian Safety Association certification;
- Project definition including installed turbine(s) capacity, targeted long term production levels, scale elevations or photos of turbines showing total height, tower height, rotor diameter and colour;
- Analysis of noise impact including a map indicating all lands and sensitive receptors impacted by the >40dBA emission level and estimated noise levels at property lines and receptors;
- Any other information deemed necessary by the County to evaluate the application.

2.7.3 For utility scale wind turbines, the developer must also submit the following:

- Authorization documents from Transport Canada, NavCan and any other federal departments if applicable;
- An Environmental Impact Assessment, if the turbine or wind farm has a generating capacity at or in excess of two (2) megawatts;
- Documentation stating that the project does not disrupt provincially significant wildlife habitat or endangered species habitat;
- A decommissioning and site reclamation plan.

## **NOTICE TO PROPERTY OWNERS**

2.8 When an application has been received to amend this By-law, all property owners within one hundred (100) metres of the subject property shall be notified of the application by the clerk.

2.8.1 The notification set out in clause 2.8 shall be in addition to the advertisement for public hearing and shall be delivered to all affected property owners by mail prior to the public hearing.

## **SURVEY OF LANDS**

2.9 Where the Development Officer is unable to determine whether the proposed development conforms to this By-law, the Development Officer may require that the plans submitted under Section 2.6 be based on an actual survey by a Nova Scotia Land Surveyor.

## **ISSUANCE OF A DEVELOPMENT PERMIT**

2.10 The Development Officer shall not issue a development permit unless:

- The proposed development is in conformance with this By-law; or
- This By-law, pursuant to the Municipal Government Act and the time for appeal has elapsed or the appeal has been disposed of and the development is otherwise consistent with the requirements of this By-law.

2.10.1 Every Development Permit is valid:

- Upon the development being commenced within twelve (12) months from the date of issuing the permit
- Upon the permit being renewed for another twelve (12) months if construction has begun; or
- If not commenced within twelve (12) months and is still proposed, a new application is to be made.

## **VARIANCE FROM MINIMUM REQUIREMENTS**

2.11 In accordance with the requirements of the Municipal Government Act, the Development Officer may not grant a variance for the setback requirements provided the:

- variance violates the intent of this By-law
- difficulty experienced is general to the properties in the area; or
- difficulty experienced results from an intentional disregard for the requirements of this By-law.

## **DEVIATIONS FROM APPLICATION**

- 2.12 No person shall deviate, or allow deviations to be made, from the description of the proposed development that is contained in the development permit, unless the developer has obtained a new development permit from the Development Officer.
- 2.13 The Development Officer may revoke a development permit where the development permit was issued based on false or mistaken premises.

## **PENALTY**

- 2.14 Any person in violation of this By-law may be penalized through fines or imprisonment as provided for in the *Municipal Government Act*.

## **ENFORCEMENT**

- 2.15 Council, by any authorized officer or servant, shall have the right to enter at all reasonable times into or upon any property within the Plan area for the purposes of an inspection necessary to the administration of this By-law.

## **COSTS FOR ADVERTISING**

- 2.16 Applications for an amendment to this By-law shall be accompanied by a deposit to the Eastern District Planning Commission an amount estimated by the Commission to be sufficient to pay the cost of advertising required by the *Municipal Government Act*. After the advertising has been complete, the applicant shall pay to the Commission any additional amount required to defray the cost of the advertising, or if there is a surplus, the Commission shall refund the excess.
- 2.17 Upon receipt of an application for a variance from the requirements of this By-law, the Development Officer shall give notice to the persons required in the manner prescribed by the Municipal Government Act, the notice of the approval or refusal of the variance application. Such notice is to be served by ordinary mail, and the Municipality shall recover from the applicant the cost of giving such notice.

## **PART 3. INTERPRETATION**

### **ZONES**

3.1 For the purpose of this By-law, the Municipality of the County of Antigonish is divided into the following zones, the boundaries of which are shown on the Zoning Map.

General Resource	GR-1
Wind Resource	WR-1

### **ZONING MAP**

3.2 The attached Schedule “A” is titled “Zoning Map” and forms a part of this By-law.

### **INTERPRETATION OF CERTAIN WORDS**

3.3 In this By-law, words used in the present tense include future; words in the singular number include the plural except where otherwise clearly stated; words in the plural include the singular number; and the word “used” includes “arranged,” designed or intended to be used.” The word “shall” is mandatory and the word “may” is permissive. All other words carry their customary meaning except for those defined in Part 5 of this By-law, entitled “Definitions.”

### **STANDARDS OF MEASUREMENT**

3.4 Throughout this By-law, the metric system has been used, followed by the approximate imperial system equivalent in brackets. Should any case arise where there appears to be a discrepancy between the two figures, the metric figure shall prevail.



## **PART 4. GENERAL RESOURCE (GR-1) ZONE**

### **USES PERMITTED AND NOT SUBJECT TO DEVELOPMENT PERMITS**

4.1 Notwithstanding sections 4.2 and 4.3 of this By-law all developments are permitted in the General Resource (GR-1) Zone as-of-right, subject to area-specific requirements outlined in the Secondary Planning Strategies.

### **PROHIBITED USES**

4.2 The following use shall not be permitted uses in the GR-1 Zone:

- Utility scale wind turbines

### **USES PERMITTED AND SUBJECT TO DEVELOPMENT PERMITS**

4.3 The following use shall be permitted in the GR-1 Zone subject to development permit:

- Domestic scale wind turbines

### **REQUIREMENTS RELATING TO DOMESTIC SCALE WIND TURBINES**

4.4 No person shall erect a domestic scale wind turbine in the General Resource (GR-1) Zone except in accordance with the following requirements:

- a) Maximum height of the turbine shall be 60 metres;
- b) Minimum setback from all adjacent lot boundaries shall be three times the height of the turbine;
- c) The minimum setback from all adjacent lot boundaries may be reduced to two times the height of the turbine subject to an analysis of noise impacts indicating that the mean value of sound pressure level from a wind turbine does not exceed 40dBA or is not above the existing background noise, whichever is greater, at the nearest residence;
- d) The minimum lot size for the subject property shall be 0.4 hectares (1 acre);
- e) There shall be no signs, advertisements or objects, attached to or added to the turbine;
- f) Turbines greater than 6 metres (19.7 feet) in height shall not be mounted on or attached to any other structure;
- g) All supporting structures must be located three metres from the property line.
- h) All supporting structures including guy wires shall be clearly visible to a height of 2 metres (6 feet) above the ground.

## **NUMBER OF TURBINES**

4.5 A maximum of one domestic scale wind turbine per property is permitted.

## **SPECIAL PROVISIONS**

### Mini wind turbines

4.6 Section 4.4 (d) of the zone requirements (minimum lot size) shall not apply to mini wind turbines.

### Exemption from setback

4.7 The minimum setback from all adjacent lot boundaries shall be waived if such adjacent property owner agrees to grant an easement binding on the current and future land owners.

## **PART 5. WIND RESOURCE (WR-1) ZONE**

### **USES PERMITTED AND NOT SUBJECT TO DEVELOPMENT PERMITS**

5.1 Notwithstanding section 5.2 of this By-law all developments are permitted in the Wind Resource (WR-1) Zone, subject to area-specific requirements outlined in the Secondary Planning Strategies.

### **USES PERMITTED AND SUBJECT TO DEVELOPMENT PERMITS**

5.2 The following uses shall be permitted in the WR-1 Zone subject to development permit:

- Domestic scale wind turbines
- Utility scale wind turbines

### **REQUIREMENTS RELATING TO DOMESTIC SCALE WIND TURBINES**

5.3 No person shall erect a domestic scale wind turbine in the Wind Resource (WR-1) Zone except in accordance with the requirements specified in Section 4.4

### **REQUIREMENTS RELATING TO UTILITY SCALE WIND TURBINES**

5.4 No person shall erect a utility scale wind turbine in the Wind Resource (WR-1) Zone except in accordance with the following requirements:

- a) Minimum setback from all residences, except residences located on the same lot as the wind turbine, shall be 600 metres (1969 feet). There is no setback requirement from residences located on the same lot;
- b) Minimum setback for larger turbines or wind farms requiring environmental assessment from all residences, except residences located on the same lot as the wind turbine, shall be 1000 metres (3280 feet). There is no setback requirement from residences located on the same lot;
- c) The minimum separation distance between turbines shall be equal to the height of the tallest turbine;
- d) Minimum setback from all property lines shall be 10 metres (32.8 feet) plus one times the height of the rotor;
- e) There are no setback requirements for new residences constructed subsequent to a utility scale wind turbine development;
- f) Minimum setbacks from watercourses and public highways shall be 60 metres or two times the height of the turbine, whichever amount is greater;
- g) Minimum setback from all coastlines shall be 100 metres;

- h) The mean value of sound pressure level from a wind turbine shall not exceed 40dBA or above the existing background noise, whichever is greater, at the nearest residence;
- i) There shall be no signs, advertisements or objects attached to or added to the turbine(s).

## **SPECIAL PROVISIONS**

### Expansion of Wind Turbine Development

- 5.5 Notwithstanding the setback requirement from a residence contained in Section 5.4 (a) and 5.4 (b), where a residence is constructed within the setback distance of utility scale wind turbine development erected after the effective date of this Strategy, the wind turbine development may expand. The setback requirement for any expansion shall be equal to or greater than the setback between the initial wind turbine development and the residence.

### Setback on Land Leased for Wind Turbine Development

- 5.6 The setback requirements from property lines contained in Section 5.4 (d) are waived where wind turbine development occurs on land where the adjacent property is subject to a lease for that purpose for a term of 19 years or greater. The setback requirement shall apply to any property which is not leased for wind turbine development.

### Setback for Coastal Areas

- 5.7 Notwithstanding the minimum setback from coastlines specified in Section 5.4 (g), in cases where topographical conditions permit, the Development Officer may grant a variance by not more than 40 percent.

### Removal of Wind Turbines

- 5.8 The owner shall remove a wind turbine from the lot following one year of inactivity. All supporting structures on the lot shall be removed within 60 days of the date of notification by the County and the surface site restored to a reasonable natural state within 18 months. A new application shall be submitted and approved before a new turbine is installed or a wind turbine is restarted after the expiration of the one year period.

## **PART 6. DEFINITIONS**

***Coastline*** refers to the part of land adjoining the ocean or its saltwater arms at the high water mark.

***Domestic Wind Turbine*** refers to a device for converting wind power to electricity, which has a nameplate capacity of not more than 100 Kilowatts (kW) and which is intended primarily to reduce on-site consumption of utility power.

***Height of Wind Turbine*** refers to the distance from the bottom of the turbine to the height of a rotor blade in vertical position.

***Height of Rotor*** refers to the diameter of the swept area of the rotor blades.

***Kilowatt (kW)*** is a measure of power for electrical current (1 kW= 1000 watts). A Megawatt (MW) equals 1000 Kilowatts.

***Mini wind turbine*** refers to a device for converting wind power to electricity which has a name plate capacity of less than one (1) Kilowatt (1000 watts) and which is intended to reduce on-site consumption of utility power.

***Nameplate capacity*** means the manufacturer's maximum rated output of the electrical generator found in the nacelle of the wind turbine. This equals the electricity produced when the wind velocity is such as where the conversion efficiency is at its greatest.

***Public road*** means any street accepted and maintained by the Province of Nova Scotia or the Municipality as a public thoroughfare.

***Residence*** refers to a structure used for human habitation, whether for seasonal or permanent occupancy, and is assessed for taxation purposes.

***Setback*** of a wind turbine is measured from the base of the wind turbine tower.

***Structure*** refers to anything that is erected, built or constructed of parts joined together or any such erection fixed to or supported by the soil or any other structures. A structure shall include buildings, walls, signs and fences exceeding 2 metres (6.56 feet) in height.

***Supporting structure*** of a wind turbine includes all structures accessory to the turbine itself, including guy wires.

***Utility Wind Turbine*** refers to a device for converting wind power to electricity, which has a name plate capacity of more than 100 Kilowatts (kW) and generates power primarily for sale to a third party and which may be developed either as a stand alone machine or be grouped with others in a wind farm.

***Watercourse*** includes the bed and shore of every river, stream, lake, creek, pond, spring, lagoon or other natural body of water, and the water therein, whether it contains water or not.

***Wind Farm*** refers to a grouping of more than one interconnected wind turbines on one lot or abutting lots used for the purpose of converting wind power to produce electricity. These typically require a central computerized monitoring system that monitors the operation of the turbines.