

DRAFT

Municipal Planning Strategy
and
Land Use By-law
For the Regulation of
Wind Turbine Development
in the
Municipality of the District of Digby

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Municipality of the District of Digby

Municipal Planning Strategy

1. Introduction

1.1 Context

Economic and environmental concerns have influenced households, communities and governments to identify ways of decreasing our reliance on fossil fuels for energy generation. In Nova Scotia the provincial government has targeted reducing total greenhouse gas emissions to 10% below 1990 levels by the year 2020. The Province has mandated Nova Scotia Power Inc. (NSPI) to generate approximately 18% of its electrical output from renewable sources by 2013.

Energy generated through harnessing the power of the wind features prominently in the alternative energy scenario. Nova Scotia is recognized as having significant wind energy potential given wind regimes which results from our coastal location. The erection of numerous test turbines, an operating commercial wind farm, the creation of community economic development funding mechanisms and NSPI wind energy purchase agreements have all contributed to a significant level of activity in the wind energy development sector in the province since the early 2000's. As of 2008 two wind turbines had been erected in the Municipality, at East Ferry and Mt. Pleasant, and interest had been expressed in the potential for wind farm development in the Digby Neck area.

While the Municipality of the District of Digby does not have comprehensive municipal planning and land use regulation in place it has adopted detailed area planning documents for Conway and for the Digby Wellfield. Council has deemed it appropriate to adopt a planning and development control framework for wind turbine development which will apply to all lands within the Municipality.

1.2 **Legislative Mandate and Planning Document Structure**

The *Municipal Government Act*, Chapter 18 of the Statutes of Nova Scotia, 1998, gives municipalities the authority to regulate land use and development within their boundaries. This authority is exercised through the adoption of a Municipal Planning Strategy and Land Use By-law. This Strategy and the accompanying Land Use By-law have been adopted pursuant to the provisions and procedures established in the *Municipal Government Act*.

The purpose of a Municipal Planning Strategy is to provide statements of policy to guide the development and management of the municipality. Council may address a broad range of land uses in the Strategy or Council may choose to provide for the planning and management of only one use of land. Similarly a Municipal Planning Strategy may apply to all lands within the Municipality or it may regulate development for a specific area or areas.

In 2003 the Municipality adopted a Municipal Planning Strategy and Land Use By-law for lands in the Mt. Pleasant/Culloden area which comprised the “wellfield area” for the Town of Digby’s water supply. This Strategy and By-law seek to protect the quality of lake and ground water resources which are used as the source of the Town’s municipal water supply.

In 2003 the Municipality also adopted a Municipal Planning Strategy and Land Use By-law for the Conway area as a means of managing growth and development in the Municipality’s primary commercial district.

This Municipality Planning Strategy contains policy statements and supporting text with respect to the regulation of wind turbines. The development control regulations themselves, which implement the policies contained in the Strategy, are contained in a separate document, the Land Use By-law. The Municipal

Planning Strategy and Land Use By-law have been prepared and adopted concurrently.

After adoption, both the Municipal Planning Strategy and Land Use By-law may be amended. Amendments to the Strategy require public consultation, formal input through a public hearing and adoption by Council as they involve changes to policy. Amendments to the Land Use By-law also incorporate a public hearing component and approval by Council however any such amendments must be consistent with the policy statements of the Municipal Planning Strategy.

Development is regulated by the Land Use By-law through the issuance of a development permit by the Municipal Development Officer. A Development Officer may not issue a development permit unless it meets all requirements of the Land Use By-law.

An exception to this is where Council chooses in its planning documents to regulate development by employing a Development Agreement. In those instances the Development Agreement contains the regulatory provisions pertaining to the specific development and the development permit is issued pursuant to the terms and conditions of the Agreement.

1.3 Planning Process and Public Consultation

Note: This section is to be completed. Text will detail the work program of the PAC, specifically describe the public consultation program and will highlight the efforts and outcomes relating to the community meeting and public hearing components of the planning program. Components of the public consultation process have included the initial Public Awareness Meeting held on June 4, open/public Planning Advisory Committee meetings, receipt of

public presentations at PAC, postings on the Municipal website, community meetings and the formal public hearing.

1.4 Statements of Provincial Interest

The *Municipal Government Act* requires that a municipal planning strategy be reasonably consistent with Statements of Provincial Interest which have been adopted by the Province. At the time of the preparation of this Strategy the Province had adopted 5 separate statements respecting the following issues: the quality of water within municipal water supply watersheds; protection of public safety and property in designated and recognized floodplains; the protection of agricultural lands; the efficient use of municipal water and wastewater infrastructure; and the provision of housing opportunities which meet the needs of communities.

In considering the issues addressed in this Strategy and the accompanying Land Use By-law Statements of Provincial Interest have been assessed. As this Strategy focuses on the specific issue of wind turbine development and regulation nothing in the Strategy has been deemed to be inconsistent with Statements of Provincial Interest. The Municipality has adopted planning documents which serve to protect the Town of Digby's Wellfield Area which directly addresses one of these Statements.

2. Regulating Wind Turbine Development

2.1 Purpose and Goals

As enabled through the *Municipal Government Act* the purpose of this Municipal Planning Strategy and the accompanying Land Use By-law is:

To establish a planning policy framework and development control provisions for the erection of wind turbines within the Municipality.

To this end the goal of this Strategy is:

To regulate the development of small and large scale wind turbines in a manner which is compatible with adjacent property interests and community character through the use of appropriate development control regulation.

This Strategy and By-law are intended to regulate only the development of wind turbines. All other types of development, except as regulated through “secondary planning documents”, will continue to be permitted within the Municipality and will not be subject to planning or development control regulations.

2.2 The Planning Area

The Planning Area for this Strategy is all lands within the Municipality of the District of Digby as shown on Map 1. Within the Planning Area there are two Secondary Planning Areas, Conway and the Digby Wellfield Area. Each of these areas has a separate Strategy and Land Use By-law which were adopted by Council in 2003. These documents are now referred to as Secondary Planning

Strategies and Land Use By-laws and dictate how development is regulated in those areas.

Because of its urban nature and its proximity to the Town of Digby, the Conway Secondary Planning Strategy and Land Use By-law is comprehensive and regulates many land uses. As indicated in Policy 3, the Digby Wellfield Secondary Planning Strategy and Land Use By-law protects the wellfield area from uses which pose a threat to water quality.

Both of the secondary planning documents also regulate wind turbine development but the regulation of this development may differ from that in the rest of the Planning Area.

2.3 Domestic Scale Turbine Development

As the term implies domestic scale wind turbines generate power primarily for domestic use. These turbines range in both height and energy generation potential.

Most of these turbines are installed “behind the meter” and are tied directly to a residential electrical system or indirectly to a battery reservoir system. NSPI restricts the size of these turbines to 100 Kilowatts (kW) and has established technical requirements for their installation and connection to a domestic power system.

The Council believes that individual property owners should be permitted to erect domestic scale turbines on their properties provided that they are located so as to not pose a threat of property damage to adjacent properties or to dwellings on the same lot in the event of a failure.

2.4 Utility Scale Wind Turbines

For the purposes of this Strategy the term utility scale turbine applies to turbines of greater than 100kW capacity. These types of turbines are currently used almost exclusively for the production of energy which is owned and distributed through the Nova Scotia Power's electrical utility grid system. Turbines which are compatible with this system often exceed 100 to 115 meters in height and are generally capable of producing anywhere between 750 kilowatt to 1.5 megawatts of electricity each. As turbine technology advances the size and output of these machines continues to increase.

Because of the magnitude of these structures, the infrastructure necessary to support them and the capital and operating costs to erect them and maintain production, utility scale turbines are most often developed in groups, known as wind farms. The development of such wind farms have been targeted for areas which have been identified as having good "wind energy potential" due to the presence of such criteria as the consistency and speed of winds, topography, access and proximity to electrical transmission infrastructure. A number of sites within the Municipality, including lands on Digby Neck have been recognized as having wind energy potential.

While the Council supports the development of utility scale turbines and associated wind farms it is necessary to ensure that any such development be undertaken in a manner so as to ensure that controls are in place which minimize potential negative impacts from such development on adjacent properties and nearby communities.

Considering the regulatory options available to the Municipality to ensure the mitigation of potential impacts of utility scale turbine development Council believes that the use of a Development Agreement is the most appropriate means of regulating the development of utility scale turbines.

A Development Agreement is a legal undertaking between a developer and the Municipality which establishes the terms and conditions by which approval is granted for a site specific development. The Development Agreement goes with the title of the property subject to the development and is binding on subsequent property owners. The Development Agreement is subject to public review through a public hearing and approval or rejection of an application to enter into a Development Agreement is subject to appeal to the Nova Scotia Utility Review Board.

2.5 Administrative Requirements

Appointment of a Development Officer

Council, with the support of the Municipality's Planning Advisory Committee, is responsible for the Municipal Planning Strategy. As provided for in the *Municipal Government Act* the administration of the Land Use By-law is the responsibility of the Municipality's Development Officer. Council will appoint a Development Officer for the purposes of administering the Land Use By-law.

Variance

The *Municipal Government Act* authorizes the Development Officer to grant a variance from specified requirements of the Land Use By-law. These requirements include:

- height of a structure;
- height and area of a sign;
- size of yards; and
- minimum lot area.

Only one of the above requirements is relevant to the Land Use By-law for the Municipality, that being the size of yards. A setback is considered a yard.

The *Municipal Government Act* also states that variance may not be granted where:

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

Adjacent landowners are notified of the Development Officer's decision to grant a variance. The decision of the Development Officer may be appealed to Council. The refusal of a variance may also be appealed to Council.

3. Municipal Planning Strategy Policies

The following are the policies relating to the regulation of domestic and utility scale wind turbine development within the Planning Area.

- Policy 1 It shall be the policy of Council that the Planning Area for this Municipal Planning Strategy shall be the entire Municipality.
- Policy 2 It shall be the policy of Council that a Secondary Municipal Planning Strategy and Land Use By-law may be adopted for an area or to address as specific issue or issues as may be deemed appropriate by Council.
- Policy 3 It shall be the policy of Council to maintain a Secondary Planning Strategy and Land Use By-law which will serve to protect lands within the Digby Wellfield Area.
- Policy 4 It shall be the policy of Council to maintain a Secondary Municipal Planning Strategy and Land Use By-law which provides for the planning and development regulation within the Conway Area for the purposes of managing orderly growth and development within the Municipality's primary commercial area.
- Policy 5 It shall be the policy of Council that the Municipal Planning Strategy addresses only those issues relating to the development of wind turbines within the Municipality and that, notwithstanding secondary planning strategies or

related land use by-laws, all other land use shall be exempt from policy or regulatory control.

- Policy 6 It shall be the policy of Council that a Municipal Development Permit will be required only for the erection of wind turbines.
- Policy 7 It shall be the policy of Council to establish in the Land Use By-law a zone to be called the General Development Zone. The symbol for the General Development Zone shall be “GD”. The General Development Zone shall permit all land uses as-of-right and it shall apply to all lands within the planning area not otherwise subject to a secondary municipal planning strategy or land use by-law.
- Policy 8 It shall be the policy of Council to establish in the Land Use By-law definitions for domestic and utility scale wind turbines.
- Policy 9 It shall be the policy of Council to allow the development of domestic scale wind turbines in the General Development Zone and to regulate the location of these turbines by establishing setback requirements from all property lines and separation distances from dwellings on the same lot and adjacent properties.
- Policy 10 It shall be the policy of Council to consider the development of utility scale wind turbines in the General Development Zone only by Development Agreement.

Policy 11 In reviewing applications to enter into a Development Agreement for the development of utility scale wind turbines it shall be the policy of Council to have consideration to the following:

(a) the proposed development does not create an unacceptable impact on surrounding residential uses in terms of noise, shadow flicker/strobing and public safety. In the evaluation of this criterion, in addition to the impact study required by Policy 12, Council shall have regard to the following:

- (i) noise level information supplied by the manufacturers of the wind turbines;
- (ii) the latest peer reviewed studies which address acceptable levels of noise on residential uses;
- (iii) the duration of expected noise exposure by adjacent properties;
- (iv) the extent to which shadow flicker and strobing is a factor on residential uses;
- (v) the turbines are located such that collapse, blade throw or ice throw does not affect adjacent properties.

(b) in the opinion of Council the proposed development does not visually dominate the landscape as evidenced by data provided through the visual impact study required by Policy 12.

- (c) the intersection of any access road(s) with any public road meets the design and construction specifications of the authority having jurisdiction over public roads.
- (d) that support tower, blades and nacelles be painted off-white or light grey and have a matt finish.
- (e) that no advertisements or lettering be visible except that of the manufacturer.
- (f) the impact of the proposed development on surface water, storm water, streams, lakes or wetlands and other environmental matters.
- (g) the impact of the proposed development with respect to soil stability and retention and potential for erosion.
- (h) the impact of the proposed development on public water supplies or private wells.
- (i) a project decommissioning and site reclamation plan.

Policy 12 It shall be the policy of Council to require that in relation to all applications for a development agreement relating for the development of Utility Scale Wind Turbine(s) the following information be provided in order to assist in assessment of the proposal in light of the criteria contained in Policy 11:

1. An accurate and to scale site development plan describing the scope and nature of the proposed development, including but not necessarily restricted to:
 - (a) a description of the project including the number and capacity of proposed turbines;
 - (b) proposed location of wind turbine(s) and related structure(s), as well as all existing structures;
 - (c) proposed and existing roads;
 - (d) adjoining property lines;
 - (e) utility lines;
 - (f) topography and contours;
 - (g) existing vegetation and proposed landscaping;
 - (h) environmentally sensitive lands, and watercourses and related erosion and sedimentation management plans;
 - (i) direction of prevailing winds;
 - (j) type, size and location of any proposed security fencing;
 - (k) location of any proposed public safety signage;
 - (l) phasing of the proposed development and possible future site expansion; and
 - (m) decommissioning and reclamation plans and provisions.

2. Impact Study

Provide an impact study, utilizing recognized computer modeling techniques or related professional study and assessment by qualified persons, examining how the

proposed wind turbine or wind farm will impact neighbouring properties and community with respect to:

- a) visual impact, including:
 - i) provide a visual representation including scale elevations, colour and proportion of wind turbine(s), photographs and/or digital representations showing placement and landscaping;
 - ii) assessment of turbine modification to the landscape, e.g. shadow flicker, strobing and lighting;
 - iii) visual perspective from the local community;
 - iv) visibility of the development from any identified public viewpoints or scenic viewsapes.

- b) noise impact, including:
 - i) existing background noise levels;
 - ii) expected noise levels associated with construction and operation of the wind development at various distances from the turbine(s);
 - iii) decibel ratings for all equipment required in the operation of the development including manufacture's specifications relating to output, sound characteristics and the structure(s) material.

Policy 13 It shall be the policy of Council that Policy 9 shall not apply to domestic wind turbines existing as of the effective date of this Strategy. Existing wind turbine development that does not meet the setback requirements will be allowed to

continue as non-conforming structure but the alteration, relocation or modification of an existing turbine or the development of any subsequent turbine(s) must comply with the Land Use By-law.

Policy 14 It shall be the policy of Council to appoint a Development Officer who shall be responsible for administration of the Land Use By-law.

Policy 15 It shall be a policy of Council to include a provision in the Land Use By-law stating that a variance may be granted pursuant to the *Municipal Government Act*. The variance will apply to the setback distance requirements established in the By-law.

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Land Use By-law

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 District of Digby.

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* (Chapter 18, Acts of 1998) as amended, by regulating the development of wind turbines. This By-law shall apply to the Municipality of the District of Digby shown on Schedule "A", Zoning Map.

1.3. This By-law does not exempt any person from complying with other by-laws or regulations in force within the Municipality of the District of Digby or from obtaining any license, permission, permit, authority or approval required there under. In particular compliance with the Municipality's Orderly and Peaceful Conduct By-law may be relevant with respect to the regulation of wind turbines. 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.

2. Administration

2.1 Development Officer

This By-law shall be administered by the Development Officer appointed by the Council of the Municipality of the District of Digby, and the Development Officer shall issue Development Permits under this By-law.

2.2 Acting Development Officer

In the absence or incapacity of the Development Officer, the Acting Development Officer appointed by Council shall act in the Development Officer's stead.

2.3 Requirement for a Development Permit

No person shall undertake, or cause or permit to be undertaken, any wind turbine development in the area to which this Land-Use By-law applies unless a Development Permit has been obtained in relation to such development from the Development Officer or Acting Development Officer, as appointed by Council.

2.4 No Permit Required

A Development Permit is not required for any development except for wind turbine development.

2.5 Development Subject to Development Agreement

No development of Utility Scale Turbines may be undertaken unless enabled through an effective Development Agreement.

2.6 Requirement for Application

Every person wishing to obtain a Development Permit or make application for a Development Agreement must submit an application

for such to the Development Officer in the form prescribed from time to time by Council.

2.7 Contents of an Application

Every application for a Development Agreement or Development Permit shall be accompanied by a plan drawn to an appropriate scale and showing:

- 2.7.1 the true shape and dimension of the lot to be used or upon which the development is proposed;
- 2.7.2 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;
- 2.7.3 the location of every building or structure already constructed, or partly constructed, on such lot and the location of every building or structure existing upon abutting lots;
- 2.7.4 the location of any watercourse and location of any existing or proposed building or structure in relation to the watercourse; and
- 2.7.5 other such information as may be necessary to determine whether or not the proposed development conforms with the requirements of this By-law.

2.8 Survey of Lands

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 upon an actual survey by a Nova Scotia Land Surveyor.

2.9 Signatures

The application for a Development Permit shall be signed by the owner of the lot, or by his or her authorized agent, and shall set forth in detail the current and proposed use of the lot and each building or structure, or part thereof, together with all information necessary to determine whether or not the proposed development conforms to the requirements of this By-law.

2.10 Issuance of a Development Permit

The Development Officer shall not issue a Development Permit unless:

2.10.1 the proposed development is in conformance with this By-law;

or

2.10.2 the Development Officer has granted a variance from the terms of 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 Land Use By-law.

2.11 Deviations

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.

2.12 Right of Entry

Pursuant to the *Municipal Government Act*, the Development Officer, at all reasonable times, may enter into or upon any property within the area to which this Land Use By-law applies for the purposes of any inspection necessary in connection with the administration of this By-law.

2.13 Lapse of Permit

Every Development Permit issued under this By-law shall automatically lapse, and become null and void, if the development to which it relates has not commenced and three years has passed since its issuance.

2.14 Revocation of a Development Permit

The Development Officer may revoke a Development Permit where the development permit was issued based upon false or mistaken information.

2.15 Decision in Writing

Any decision of the Development Officer to refuse the issuance of a Development Permit shall be given by written notice served by ordinary mail, whereas any decision to revoke a Development Permit shall be given by written notice served by registered mail, and such revocation shall become effective on the third business day after it was sent.

2.16 Violations

In the event of any alleged contravention of the provisions of this By-law, the Municipality of the District of Digby may take action as outlined in the *Municipal Government Act*, as amended from time to time.

2.17 Effective Date

Pursuant to the *Municipal Government Act*, this By-law shall take effect on the date a notice is published in a newspaper, circulating in the Municipality, informing the public that the Planning Strategy and its implementing Land Use By-law are in effect.

2.18 Cost of Notice for Variance

Pursuant to the *Municipal Government Act*, where a variance from the requirements of this By-law has been granted or refused, the Development Officer shall give notice to the persons required and in the manner prescribed by the *Municipal Government Act*, such notice to be served by ordinary mail, and the Municipality shall recover from the applicant the cost of giving such notice.

3 Interpretation

3.1. Zones

For the purpose of this By-law the whole the Municipality of the District of Digby, saving and exempting those lands subject to a Secondary Municipal Planning Strategy and Secondary Land Use By-law, shall be placed in the General Development Zone, the boundaries of which are shown on the attached Schedule "A". This zone is also referred to by the symbol "GD".

3.2. Zoning Map

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

3.3. Interpretation of Certain Words

In this by-law, words used in the present tense include the future; words in the singular number include the plural; words in the plural include the singular number; the word "used" includes "arranged", "designed" or "intended to be used"; the word "shall" is mandatory and not permissive. All other words and phrases carry their customary meaning except for those defined in Part 5 of this By-law, entitled "Definitions".

3.4. Standards of Measurement

The Metric System of Measurement is used throughout this By-law and in all cases represents the required standard. Imperial measurements are approximate only, for convenience only, and are not to be regarded as precise.

3.5 Variance from Minimum Requirements

In accordance with the requirements of the *Municipal Government Act*, the Development Officer may not grant a variance for the size of yards (setback requirements) if the:

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

4. The General Development (GD) Zone

4.1 Permitted Developments

All developments are permitted in the General Development (GD) Zone.

4.2 Requirements Relating to Domestic Wind Turbines

No requirements apply to any development except wind turbine development which is subject to the following:

Domestic Wind Turbines

- Minimum separation distance from any residence located on the property shall be 1 times (1X) the height plus 3 meters;
- Minimum separation distance from any residence located on an abutting property shall be 1.5 times (1.5X) the height
- Minimum setback from all property boundaries shall be 1 times (1X) the height plus 3 meters

4.3 Requirements Relating to Utility Scale Wind Turbines

No Development Permit shall be issued for the erection of a Utility Scale Wind Turbine except in conformity with the provisions of a Development Agreement which has been approved by the Council and registered with the Registry of Deeds.

5. Definitions

For the purposes of this By-law all words shall carry their customary meaning except for those words and phrases defined in this Part.

- 5.1 Domestic Wind Turbine** means a wind turbine which has a rated capacity of not more than 100kW and which is intended primarily to reduce on-site consumption of utility power;

5.2 Height of Wind Turbine means the distance from ground level to the height of a rotor blade in a vertical position;

5.3 Public Road means:

5.3.1 any road or highway owned and maintained by the Department of Transportation and Public Works excluding designated controlled access highways pursuant to Section 21 of the *Public Highways Act*; or

5.3.2 any road owned and maintained by the Municipality of the District of Digby;

5.4 Utility Scale Wind Turbine means a device for converting wind power produce electricity of at least 100Kw;

5.5 Residence means a structure used for human habitation, whether for seasonal or permanent occupancy.