



## Municipality of the County of Kings

# Report to the Planning Advisory Committee

## Large-Scale Wind Turbine Policy, History, and Options

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### 1. Introduction

On May 3<sup>rd</sup>, 2011 Council passed amendments to the Municipal Planning Strategy (MPS) and Land Use Bylaw (LUB) to permit the development of large-scale wind turbines. Large-scale wind turbines are defined in the MPS as those with a rated power output greater than 100 kilowatts.

On December 13<sup>th</sup>, 2011 the Planning Advisory Committee (PAC) heard concerns from residents about the adequacy of the current large-scale wind turbine policy and the lack of opportunity for public involvement in the approval of large-scale turbine facilities. The residents' concerns were in response to the erection of a wind monitoring tower in the Greenfield area, which may mean that a developer is interested in developing one or more large-scale wind turbines at or near this site. In response to these concerns, PAC directed Staff to compile information and options for addressing the residents' concerns. This report is the outcome of PAC's request.

### 2. Current Policy

#### 2.1 Municipal Planning Strategy

Council's current policy regarding large-scale wind turbines is a reflection of its commitment to sustainability principles contained in the Integrated Community Sustainability Plan (ICSP). The wind turbine policy also reflects Council's intent to strengthen the economic base of Kings County and contribute to the provincial renewable energy target (currently set at 25 percent of all electricity from renewables by 2015). The full text of the current large-scale wind turbine policy can be found in Section 5.5 of the Municipal Planning Strategy (see Appendix A).

Specifically, the current policy sets out the following four Objectives:

- 5.5.1.1 *To promote the development of large-scale wind turbines in an effort to reduce the Municipality's dependence on non-renewable energy.*
- 5.5.1.2 *To respond to the Provincial call for increased sources of renewable energy.*
- 5.5.1.3 *To minimize the potential negative impacts of large-scale wind turbines on neighbouring land uses and to ensure an acceptable standard of safety and compatibility.*
- 5.5.1.4 *To maintain consistency with and support for the rural goals of the Strategy.*

The MPS then provides for the siting of large-scale wind turbines as-of-right in certain zones located within the Agricultural (A), Forestry (F), Country Residential (CR), and Shoreland (S) Districts. These districts were chosen—particularly the Agriculture and Forestry Districts—because their dominant purpose (as laid out in the MPS) is resource based land uses, such as agricultural and forestry operations. Residential uses in these districts are permitted but not encouraged. Council, through the MPS, chose to permit large-scale wind turbines as-of-right because a straightforward Municipal approval process can better encourage wind energy

development and large proposals are already subject to a Provincial Environmental Assessment.

The MPS also lays out the aspects of large-scale wind turbines that Council will regulate in the Land Use Bylaw, and provides for the construction of wind monitoring towers.

## **2.2 Land Use Bylaw**

The Land Use Bylaw permits the construction of large-scale wind turbines in the A1, F1, R6, and S1 Zones, subject to a number of regulations. The full text of these regulations can be found in Section 10.1.6 of the Land Use Bylaw (see Appendix B).

In summary they include:

- A separation distance of 2300 feet (700m) between a large-scale wind turbine and dwellings
- A setback distance of one (1) times the height of the turbine from property lines
- Exemptions from the above for properties and dwellings that are part of the wind project
- Provisions for blade clearance, separation distance between turbines, access, turbine surface finishes, lighting, and signage
- Requirements for decommissioning
- Required documents, including project details, emergency plans, and approvals from pertinent federal and provincial departments

Associated regulations for wind monitoring (meteorological) towers can be found in Appendix C.

## **2.3 Environmental Assessment**

The federal and Nova Scotia governments have environmental assessment processes in place to identify and mitigate impacts from a variety of project types; these sometimes include wind energy projects.

The federal Environmental Assessment process only applies to projects where the Federal Government is the proponent or provides money for the project, or where the project occurs on federal land.

A Nova Scotia Environmental Assessment (EA) is required pursuant to the *Environmental Assessment Regulations* and Part IV of the *Environment Act* for any electrical generating facility that has a rated power output of 2 megawatts (MW) or more. For wind projects with multiple turbines the combined power of all the turbines is used to determine if an EA is needed. The environmental assessment process involves the registration of an Environmental Impact Statement with Nova Scotia Environment. EAs are conducted to identify any impacts on human health and enjoyment of property, the natural landscape, plants and wildlife, soil and water, and other activities such as aviation and telecommunications. If negative impacts are identified, the design is adjusted to avoid or mitigate them. The provincial EA is complementary to municipal land use controls; a project subject to an EA must still conform to the regulations in the municipal land use bylaw.

## **3. Development of Wind Turbine Policies**

The following highlights several key steps in Council's development of wind turbine policies

## Highlights

- Three years from becoming an active project to Second Reading for large-scale wind turbine policy
- Public Participation Meetings and Open House held in June 2010 in Aylesford and Canning
- PAC selects the option to permit large-scale wind turbines as-of-right and sets the minimum separation distance from dwellings at 600 m
- Public Participation Meeting held in January 2011 in Kentville
- PAC and Council members take a tour of the Digby Wind Park, including meetings with Paul Warren, Manager, Wind Energy and Combustion Turbines for Nova Scotia Power Inc.; Linda Gregory, Warden of the Municipality of the District of Digby; and Linda Fraser, CAO of the Municipality of the District of Digby
- PAC increases the minimum separation distance from 600 m to 700 m.
- Public Hearing held in April 2011 in Kentville
- Second Reading in May 2011, and enactment in June 2011
- All Public Meetings were advertised in the Register and Advertiser and information was distributed through the tax newsletter
- Media releases were distributed with stories appearing in the Register, Chronicle Herald and on local radio stations

## 4. New Information

A number of developments with regard to wind turbine policy have occurred since Council established its large-scale wind turbine policies in May 2011.

### 4.1 HRM

In August 2011 Halifax Regional Municipality established its separation distance for wind turbines, selecting a 1000 metre separation distance with as-of-right permitting. HRM's policy process continues as they explore how to have greater public involvement in the permitting of turbines. A report to HRM's council on public involvement options is expected in late January.

### 4.2 UNSM

In August the Union of Nova Scotia Municipalities (UNSM) "Wind Energy Development Plan" project concluded. As a result of this project, Shelburne County established regulations for wind turbines, including a 500 metre separation distance for large-scale turbines. Shelburne now requires proponents to conduct a public meeting for wind energy projects greater than 2 megawatts in size. Cumberland County used funds from the UNSM's project to update its wind turbine policies. The result is a separation distance of 500 metres or 3 times the turbine height, whichever is greater.

### 4.3 Cape Breton Regional Municipality

Cape Breton Regional Municipality is currently examining if its 175 metre separation distance is sufficient.

#### **4.4 Public Input**

Municipal Council and Planning Staff have received a number of phone calls and emails requesting an increase in the separation distance between turbines and dwellings, as well as the opportunity for public involvement in the approval of wind energy projects.

### **5. Options**

In order to assist the Planning Advisory Committee (PAC) in making a recommendation to Council, Staff have prepared the following three options. PAC could recommend:

#### **Option A: That Council confirms its current policy**

This option would not amend the Semi-Annual Work Plan to initiate a new planning project. Large-scale wind turbines would continue to be permitted as-of-right in rural districts, subject to a 700 m setback from dwellings and other controls. The objectives and setbacks could still be reviewed through the Kings 2050 initiative or other projects in the future.

##### **Strengths:**

- Reaffirms the process used to establish the current policy
- Continues to encourage wind energy development by providing clear rules to developers
- No impact on Semi-Annual Work Plan and, therefore, other projects are not delayed

##### **Challenges:**

- Does not respond to citizens' concerns

##### **Impact on Semi-Annual Work Plan**

- none

#### **Option B: Initiate a project to review the Municipal Planning Strategy (MPS)**

This option would recommend that Council amend the Semi-Annual Work Plan by initiating a project to review the MPS policies and associated Land Use Bylaws (LUB) regarding large-scale wind turbines. As a review that is broad in scope, this option could result in changes to Council's underlying objectives, as well as the creation of policies to permit large-scale wind turbines only through a rezoning or development agreement process. Ultimately, this review could result in minor tweaking or an entirely new regulatory approach. Changing MPS policies, however, could require significant staff resources and result in delays for other planning projects.

##### **Strengths:**

- Opens up the possibility of using a development agreement or rezoning process for wind turbine approvals
- May address citizens' concerns regarding setbacks and public process
- Allows for changes to Council's objectives and policy intent

##### **Challenges:**

- The broad scoped project could require significant staff resources, resulting in delays to other planning projects
- May duplicate the recent process that was used to establish current policy
- Would increase uncertainty to wind developers who are now pursuing projects under current Municipal regulations

**Impact on Semi-Annual Work Plan**

Activating this project would result in delays to other projects current identified as active on the Semi-Annual Work Plan. There will also be fewer opportunities to initiate new projects during the spring review of the Semi-Annual Work Plan. Should PAC and Council wish to initiate a broad review of large-scale wind turbine policies, Staff suggest that the work plan be amended as follows:

- i. As a new Active Project, insert the following.*

NAME AND DESCRIPTION				
<p><b>Large Scale Wind Turbines (P12-01)</b> An initiative to review the MPS policies and associated LUB concerning the placement of large-scale wind turbines.</p>				
Public Process	Work Completed	Resource Needs Going Forward	Start Date	End Date
<ul style="list-style-type: none"> <li>▪ Preliminary Public Meetings and/or Open House to assist in selection of policy options</li> <li>▪ Additional Advertising</li> <li>▪ Minimum MPS amendment Process</li> </ul>	<ul style="list-style-type: none"> <li>▪ Previous project work</li> </ul>	<ul style="list-style-type: none"> <li>▪ Staff time to prepare reports and manage MPS amendment process</li> <li>▪ Input from various service areas</li> </ul>	Winter 2012	Fall 2012

- ii. Delay the estimated completion time for other active projects, in particular, Noggins Corner (10-18) and Rick Balsor (P12-02)*

**Option C: Initiate a project to review the Land Use Bylaw**

This option would recommend that Council amend the Semi-Annual Work Plan to initiate a project to review the Land Use Bylaw controls for large-scale wind turbines, specifically the minimum 700m separation distance. As a limited review of the LUB, the project would use less staff resources and take less time than Option B. This means that there would likely be fewer delays to other projects. This limited review, however, could not consider changes to Council’s objectives or alternative regulatory approaches, such as rezoning or development agreement processes.

**Strengths:**

- Allows for changes to the minimum separation requirements between turbines and dwellings
- May address citizen concerns of wind turbines being permitted too close to dwellings
- Values the process, resulting objectives, and regulatory approach used to establish current regulations
- Uses less staff resources than Option B
- Further changes to the MPS or LUB can still be considered through the Kings 2050 initiative or other planning project

**Challenges:**

- May not address citizen concerns of public involvement in the approval process

- Ability to increase setback distance has limits; any very large increase or decrease would be inconsistent with MPS
- Wind developers who are pursuing proposals under current regulations may appeal changes to the LUB process to the Utility and Review Board

**Impact on Semi-Annual Work Plan**

While the impact is less than Option B, activating this project would result in delays to other projects current identified as active on the Semi-Annual Work Plan. There will also be fewer opportunities to initiative new projects during the spring review of the Semi-Annual Work Plan. Should PAC and Council wish to initiate a limited review of large-scale wind turbine policies, Staff suggest that the work plan be amended as follows:

- i. As a new Active Project, insert the following.*

**ACTIVE PROJECTS**

<b>NAME AND DESCRIPTION</b>				
<p><b>Large Scale Wind Turbines (P12-01)</b>            An initiative to review the LUB provisions concerning the placement of large-scale wind turbines, specifically the minimum setback between turbines and dwellings.</p>				
<b>Public Process</b>	<b>Work Completed</b>	<b>Resource Needs Going Forward</b>	<b>Start Date</b>	<b>End Date</b>
<ul style="list-style-type: none"> <li>▪ Enhanced PIM</li> <li>▪ Additional Advertising</li> <li>▪ Minimum LUB amendment process</li> </ul>	<ul style="list-style-type: none"> <li>▪ Previous project work is available</li> </ul>	<ul style="list-style-type: none"> <li>▪ Staff time to prepare reports and manage LUB amendment process</li> <li>▪ Input from various service areas</li> </ul>	Winter 2012	Summer 2012

- i. Delay the estimated completion time for other active projects, in particular, Noggins Corner (10-18) and Rick Balsor (P12-02)*

**6. Recommendation**

Staff recommend **Option C**; that Council amend the Semi-Annual Work Plan to initiate a project to review the Land Use Bylaw controls for large-scale wind turbines, specifically the minimum 700m separation distance.

Staff recommend this options because it recognizes that a significant number of citizens, who are now very concerned about the development of large-scale wind turbines, were not engaged in the planning process to establish to the current regulations. With broader public input, Staff believe that the minimum required separation between turbines and dwellings is the most important regulation to review.

A limited review, meanwhile, would continue to preserve the objectives for encouraging wind turbines that were carefully established by PAC and Council in the original policy development process. Staff also have concerns with implementing a rezoning or development agreement process to permit large-scale wind turbines because it is difficult to define discretionary criteria, resulting in repeating debates about separation distances or simply discouraging wind development altogether. Changes to the MPS could still be considered through Kings 2050 or another project in the future.

## 6. List of Appendices

- Appendix A** – Municipal Planning Strategy Section 5.5, “*Siting of large-scale wind turbines*”
- Appendix B** – Land Use Bylaw Section 10.1.6, “*Siting of large-scale wind turbines*”
- Appendix C** – Land Use Bylaw Section 10.1.7, “*Siting of wind monitoring (meteorological) towers*”
- Appendix D** – April 27<sup>th</sup>, 2010 Report to PAC, “*Large-scale wind turbine policy options*”
- Appendix E** – Maps illustrating 1150 ft (350m), 2300 ft (700m), and 5000 ft (1500m) separation distances
- Appendix F** – Questionnaire provided to Public Participation Meeting attendees and posted on Municipal website
- Appendix G** – December 14<sup>th</sup>, 2010 Report to PAC, “*Amendments to the Municipal Planning Strategy and Land Use Bylaw for the siting of large-scale wind turbines*”
- Appendix H** – March 29<sup>th</sup>, 2011 Post PPM report to the Planning Advisory Committee, “*Amendments to the Municipal Planning Strategy and Land Use Bylaw for the siting of large-scale wind turbines*”