

# Planning Fact Sheet

Land Use Bylaw: 22-1  
Planning & Development  
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## OVERVIEW OF CURRENT WIND TURBINE REGULATIONS

### Federal Approvals

When wind projects receive funds from the federal government or are on federal lands they typically require a federal permit or authorization and may be required to undergo the federal Environmental Assessment (EA) process in addition to the provincial EA.

Additionally, there are several Federal Agencies which regulate various aspects of wind turbines. These agencies ensure that wind turbines are mechanically safe, don't pose a threat to aviation, don't interfere with telecommunications due to electromagnetic interference and are environmentally acceptable.

### Provincial Approvals

In Nova Scotia, a Class 1 Environmental Assessment (EA) is required for any wind energy project 2 MW or greater. This is a public process and includes 30 days of public review within a 50-day regulatory review period. Approval decisions are made by the Minister of Environment.

An Environmental Assessment must address the environmental, human health, and socio-economic factors that could be impacted by the project both under existing conditions and those expected due to climate change projections. The assessment must also include any proposed mitigation measures to address environmental effects, and proposed monitoring programs for the undertaking.

The provincial EA process includes requirements for public engagement and proponents must describe how any public and stakeholder groups' comments were addressed during and following the public information program.

The Environmental Assessment must also address the goals and objectives for decommissioning the site, including removal of roads, equipment, and structures, and the long-term objective for future use of the property following decommissioning.

Many of the criteria in the EA include specific regulatory requirements which must be met by the proponent. For example, a proponent must ensure that the wind farm design and turbine siting does not cause sound levels to exceed 40 dBA at the exterior of any dwelling, school, church, or similar building within 2km of the proposed turbine. This is a threshold 56% lower than that of the World Health Organization.

EA reports are publicly available and extremely detailed, involving numerous studies and analyses. Some of the components analyzed for wind energy projects appear in the table below. Studies of these components are factored into site planning to minimize environmental and social effects. Site planning includes placement of turbines, along with related infrastructure like site roads and electrical lines.

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### Ecological and Socio-Economic Components of a Provincial Environmental Assessment

Physical	Biophysical	Socio -Economic
Weather Conditions	Wetlands and Watercourses	Land Use
Ground and Surface Water	Fish and Fish Habitat	Resources: Aboriginal and Archaeological
Wetlands	Migratory and Breeding Birds	Vehicular Traffic
Noise Levels	Flora and Fauna	Telecommunications
Shadow Flicker	Rare and Endangered Species	Health and Safety
Visual Impact Assessment		Local Economy

### Summary of Jurisdictional Responsibilities for Wind Energy Development

Approval Requirement	Responsible Jurisdiction
Turbine Safety	Canadian Standards Association (CSA)
Electromagnetic Interference	Navigation Canada Department of National Defense Industry Canada
Aeronautical Safety	Transport Canada
Environmental Impacts	Federal (Limited Application) Canadian Environmental Assessment Agency
Ecological Impacts	Provincial Environmental Assessment
Socio Economic Impacts	Provincial Environmental Assessment
Land Use	Municipal Government

## Municipal Approval

Municipalities in Nova Scotia are empowered to regulate development by the *Municipal Government Act (MGA)*. For instance, municipalities may regulate setbacks, distances to dwellings, the uses permitted in each zone and the particular requirements and method of approval. Municipalities can adjust these requirements to meet the differing needs of the various regions of their jurisdiction.

Municipalities regulate development primarily through two planning documents. The Municipal Planning Strategy (MPS) which sets out the policies of Council relating to land use and the Land Use Bylaw (LUB) which then provides the detailed regulations such as zones, permitted uses, lot sizes, setbacks, etc.

### Approval methods:

There are three mechanisms available for development approval under the MGA: Development Permit, Site Plan Agreement and Development Agreement.

### Development Permit:

Most uses are approved by development permit, this is often described as being “as of right” as a permit is issued for development if the applicant meets all of the specific requirements such as the use being permitted in the zone, meeting setbacks, height, lot sizes and other requirements in the Land Use Bylaw. Approval is granted by the Development Officer; no notifications are required. Approval of the permit may not be appealed by neighbouring parties, but the applicant may appeal a decision not to approve the permit to the Nova Scotia Utility and Review Board (NSUARB) if the denial is not reasonably consistent with the Land Use Bylaw.

**Site Plan Agreement:**

Site plan development is a relatively new planning tool in Nova Scotia. The Land Use By-law sets out guidelines under which a development may be permitted through the use of site plans such as: location of structures, screening from adjacent uses and landscaping. The approval process for site plan developments does not include a Public Hearing as is required for some other applications.

Most zones in Cumberland allow certain activities and uses to happen by site plan agreement. These are often more intensive or larger developments than normal in the zone. Approval of a site plan agreement is also granted by the Development Officer and neighbouring properties are notified of the approval. Approval of the permit may be appealed to Municipal Council by neighbouring parties, but only on the grounds that the approval is not reasonably consistent with the Land Use Bylaw. Denial of the permit may also be appealed to Municipal Council by the applicant if the denial is not reasonably consistent with the Land Use Bylaw.

**Development Agreement:**

A Development Agreement is a legally binding contract between a landowner and the Municipality, outlining the terms of the development. The Municipal Planning Strategy and Land Use Bylaw determine which developments are subject to a Development Agreement and the criteria which may be considered. The Development Agreement is registered against the property and so “runs with the land” until discharged when the development is completed. A Development Agreements are typically used only for the most intensive developments.

In Development Agreements, the following may be considered:

- The hours of operation.
- Maintenance of the development.
- Easements for drainage, stormwater systems, wastewater or water systems and other utilities.
- Grading of the land and provision for the disposal of storm and surface water.
- The construction of a stormwater system, wastewater facilities and water system.
- Security or performance bonding.

In the case of a Development Agreement, a draft agreement is typically negotiated with planning staff before being presented to Municipal Council for approval. The approval process involves approval of first reading by Council, advertisements in the local paper, a public hearing, second reading by Council and notification of approval in a local paper. Any aggrieved party may appeal the Development Agreement on the grounds that the approval is not reasonably consistent with the Municipal Planning Strategy and/or Land Use Bylaw.

**Rezoning:**

While rezoning isn’t a development approval mechanism itself, it’s a common tool used by municipalities to ensure public involvement and to limit a specific use to certain areas. The rezoning process includes public notification providing the public an opportunity to provide feedback on the application. The approval process is similar to a Development Agreement. Once the rezoning is complete, the development permit can be issued “as-of-right”.

Comparison of Development Approval Processes

Approval Process	Notification	Approval By	Appealable to
Development Permit	None	Development Officer	NSUARB
Site Plan Agreement	Adjacent Properties	Development Officer	Municipal Council
Development Agreement	Public Notice & Hearing	Municipal Council	NSUARB
Rezoning	Public Notice & Hearing	Municipal Council	NSUARB

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### Current Wind Turbine Regulations in Cumberland

#### Policy Direction

This discussion is primarily focused on planning documents and approval processes, however it's worth noting that Council has historically been supportive of wind energy development. This underlying support is expressed in many additional documents, policies, plans and strategies including the following:

- Integrated Community Sustainability Plan (ICSP)
- Wind Energy Strategy
- Cumberland Wind Energy Development Plan
- Regional Energy Strategy
- Springhill Economic Development Strategy

#### Planning Policy

Council's planning policies regarding the development of wind turbines are outlined in the Municipal Planning Strategy. The Municipal Government Act requires that any discretionary approvals such as development agreements, rezonings, or amendments must reasonably comply with these policies.

In the Renewable Energy section of the MPS, Section 4.7.2 (Below) describes the importance of wind energy.

##### *4.7.2 Wind Energy*

*In 2011, the Municipality of Cumberland released its Wind Energy Development Plan, developed with the support of the Union of Nova Scotia Municipalities.*

*Through this project, the Municipality identified areas that are appropriate for wind turbines, and areas that are inappropriate for wind turbines for reasons such as water supply areas or areas of cultural significance. The project also established requirements to help reduce the impact of wind turbines on surrounding communities and natural features.*

*As of 2017, Cumberland hosts three large-scale wind farms at Stevens Mountain, outside of Springhill, and on the Tantramar Marshes. Council intends to continue to support the establishment of large-scale wind turbines in appropriate locations, as well as smaller wind turbines for personal and on-site commercial use.*

Policy 4-51 then defines three categories of wind turbines:

- (a) Domestic-scale wind turbines, intended to generate electricity only for on-site use or to pump water.
- (b) Small-scale wind turbines, intended for on-site uses, but may participate in "net-metering" programs.
- (c) Large-scale wind turbines, intended to supply electricity to the grid individually or in a "wind farm".

Policy 4-53 establishes a *Wind Turbine Restricted Overlay* that identifies areas inappropriate for small and large-scale wind turbines including bird conservation areas, historic sites, and ecologically-significant lands.

Policies 4-56 to 4-58 empower the Land Use bylaw to establish requirements for the design and siting of small and large-scale wind turbines and to include requirements for the information to be provided and process to be followed for permitting, maintenance, and decommissioning of wind turbines.

Under Policy 4-54 Council may consider amending the Wind Turbine Restricted Overlay to add locations where a local tourism plan concludes that small- and large-scale wind turbines are not compatible with the goals of the tourism plan. Although the process for such an amendment isn't defined, where the Wind Turbine

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Restricted Overlay forms a Schedule in the Land Use Bylaw, the planning process necessary would be essentially the same as a rezoning including the public hearing and appeal process.

### Requirements for Domestic Wind Turbines

Domestic-scale wind turbines shall meet the following requirements:

- (a) The minimum separation distance from property lines shall be 1.5 times the height of the turbine.
- (b) The minimum lot area for the subject property shall be 4,000 m<sup>2</sup>.
- (c) There shall be no signs, advertisements, or objects attached to or added to the turbine.
- (d) Turbines 6 metres or greater in height shall not be mounted on or attached to any other structure.
- (e) All supporting guy wires or similar shall be located a minimum of 3 metres from the property line.
- (f) All supporting guy wires or similar shall be clearly visible to a height of 2 metres above grade.
- (g) Any climbing apparatus shall be a minimum of 3 metres above grade.

Domestic-scale wind turbines are permitted as a main or accessory use in all zones provided they meet all the associated requirements.

### Requirements for small and large-scale wind turbines

The Land Use Bylaw permits small and large-scale wind turbines in all zones but not on lands covered by the *Wind Turbine Restricted Overlay*. They are approved as-of-right, meaning that there is no public hearing however the approval process does include a notification of adjacent landowners. Applications are reviewed and approved by the Development Officer.

### Wind Turbine Separation Distances

From	Minimum Separation Distance
Habitable buildings external to the wind energy project	600 metres or 3 times the height of the turbine, whichever is larger
Habitable buildings internal to the wind energy project	1.25 times the height of the turbine
Property lines external to the wind energy project	1.1 times the height of the turbine, or height of the turbine plus 7.5 metres, whichever is larger
Property lines internal to the wind energy project	None
Streets and railway rights-of-way	1.1 times the height of the turbine, or height of the turbine plus 7.5 metres, whichever is larger
Natural gas pipeline rights-of-way	85 metres
Small and large-scale wind turbines external to the project	4 times the height of the wind turbine or 4 times the height of the wind turbine external to the wind energy project, whichever is larger

### Wind Turbine Design Requirements

- The minimum clearance between the wind turbine blades and the ground shall be 7.5 metres.
- Small and large-scale wind turbines shall be finished in a non-reflective, matte finish.
- Small and large-scale wind turbines shall be protected from unauthorized access by a security fence with a lockable gate and a minimum height of 1.8 metres, or by having any ladder or permanent tower access device located no closer to the ground than 3.7 metres or, for monopole designs, by securing access with a lockable door.

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- Small and large-scale wind turbines shall not be provided with artificial lighting except for lighting that is needed to meet Transport Canada or other regulatory requirements.
- Security and site lighting shall not be intrusive and shall be directed so that they do not reflect onto adjacent properties.
- Small and large-scale wind turbine towers shall not contain any commercial advertising; however, the hub or nacelle may display the name or logo of the manufacturer, operator, and/or owner.
- Site signs shall be limited to those that identify the wind energy project, locate access points, and provide safety information.
- All outdoor storage associated with a wind energy project shall be screened from view from adjacent properties and streets.

### Operation and Decommissioning Requirements

If a small or large-scale wind turbine or wind energy project discontinues power production for 12 continuous months the operator shall provide the Municipality with a status report identifying future plans for the site.

If, in the opinion of the Development Officer, it can be reasonably established that there is another probable near term future use for any of the said components of the wind turbines, decommissioning may be deferred. Bearing in mind that development permits for large wind turbines are valid for three years and considering the costs of components and site remediation such deferrals have been granted in the past. This was based on regular contact with the operator who shared future plans for the site and was cooperative.

Unless permission to defer decommissioning has been granted by the Development Officer, the operator must follow the decommissioning plan and return of the property to reasonably natural state within 24 months of the time at which the wind turbines cease to produce power continuously. This shall include the removal of all above ground components of the wind energy project, including buildings, storage facilities, wind turbines wind testing facilities and above ground accessory infrastructure (such as overhead transmission lines and substation).

### Development Permit Application Requirements

Applications for development permits for small or large-scale wind turbines must include the following information:

- Evidence and results of public notification, if conducted.
- Evidence of continued use of prime agricultural land for farm use if on land in the Agriculture Zone.
- Evidence of notification to the Department of National Defence, Nav Canada etc, regarding potential radio, telecommunications, radar and seismoacoustic interference, if applicable.
- Copies of documentation required by Transport Canada, for turbines taller than 30 metres.
- Copies of documentation required by Nav Canada, for all turbines within 10 km of an airport or for turbines taller than 30 metres outside the 10 km range;
- A decommissioning plan.
- For large-scale wind turbines, evidence of an agreement enabling the connection of the turbine(s) to the provincial electricity grid (power purchase agreement).

The applicant shall also submit a site plan prepared by a qualified individual such as a surveyor or engineer, drawn to scale, showing:

- The location of all wind turbines and accessory uses.

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- The dimensions and boundaries of all parcels of land.
- The location of all existing and proposed buildings, structures and uses.
- Proposed alterations to natural features.
- All required setbacks and separation distances.
- The Wind Turbine Restricted Overlay.

### **Notification**

The Municipality shall notify all property owners directly bordering the wind energy project site upon issuance of a development permit. Note that this is an information notice only and that the decision to issue the development permit is not appealable to Municipal Council or the NSUARB.

### **Permit Approval**

The Development Officer must review the application for a development permit to determine if it meets all the requirements of the Land Use Bylaw. If the application meets the requirements, then the Development Officer must approve the application. If rejected, then the applicant may appeal the decision of the Development Officer to the NSUARB but only on the grounds that the decision doesn't reasonably comply with the Land Use Bylaw.

Permits for domestic and small turbines are valid for one year while those for large-scale wind turbines are valid for three years.