

**Ontario MOE EA Screening Criteria**  
**Ashton Ridge Golf Course Environmental Assessment**  
**2006**

Criterion	Yes	No	Additional information
Will the Project ...			
1. Surface and Ground Water			
1.1 have negative effects on surface water quality, quantities or flow?		✓	<ul style="list-style-type: none"> <li>• No construction is proposed within surface water courses</li> <li>• The proposed development does not involve the storage or consumption of surface water</li> <li>• The proposed development will not require alteration of surface runoff patterns</li> </ul>
1.2 have negative effects on ground water quality, quantity or movement?	✓		<ul style="list-style-type: none"> <li>• It is possible that some dewatering activities may be required when installing the tower foundations</li> <li>• There is potential to affect on wells in close proximity of the construction site in the event that a shallow water bearing formation is intercepted during construction</li> </ul> <p>Mitigation:</p> <ul style="list-style-type: none"> <li>• If construction of a wind turbine is within 100 m of a private well, the contractor will monitor, at the owners request, the quality and quantity of the water in the wells during the course of construction</li> </ul>
1.3 cause significant sedimentation, soil erosion or shoreline or riverbank erosion on or off site?		✓	<ul style="list-style-type: none"> <li>• No shoreline works will be undertaken as part of the Project.</li> </ul>
1.4 cause potential negative effects on surface or ground water from accidental spills or releases to the environment?	✓		<ul style="list-style-type: none"> <li>• Materials such as fuel and lubricating oils associated with turbine construction, maintenance and operation and could be spilled.</li> <li>• These materials are contained within equipment or the turbine itself and will not be stored elsewhere on the sites.</li> <li>• Large quantities of these materials are not contained within the turbine or on-site and do not represent a significant potential negative effect on the surface or groundwater in the event of accidental spills.</li> </ul> <p>Mitigation:</p> <ul style="list-style-type: none"> <li>• Standard containment facilities and emergency response materials will be maintained onsite as required.</li> <li>• Landowners and local first responders will receive information on materials that could be accidentally spilled or released.</li> </ul>
2. Land			
2.1 have negative effects on residential, commercial or institutional land uses within 500	✓		<ul style="list-style-type: none"> <li>• Lands for the access roads, electrical lines, turbines, electrical transformer station, and maintenance/control building will be required for</li> </ul>

metres of the site?			<p>the lease period (i.e., 20 years with renewal options)</p> <ul style="list-style-type: none"> <li>• During the lease period these lands will be removed from their present land-use</li> </ul> <p>Mitigation:</p> <ul style="list-style-type: none"> <li>• The landowners will be financially compensated and will receive free electrical power. The income received from leasing lands for wind turbines is designed to exceed the income from farming.</li> </ul>
2.2 be inconsistent with the Provincial Policy Statement, provincial land use or resource management plans?		✓	<ul style="list-style-type: none"> <li>• No effects on provincial land-use or resource management plans are anticipated</li> </ul>
2.3 be inconsistent with municipal land use policies, plans and zoning by-laws?		✓	<ul style="list-style-type: none"> <li>• The Project will conform with the Township's draft Official Plan for wind power and with the zoning by-law</li> <li>• Development is compatible with the area's surrounding rural and agricultural land uses</li> </ul>
2.4 use hazard lands or unstable lands subject to erosion?		✓	<ul style="list-style-type: none"> <li>• There are no hazard lands within the project sites</li> <li>• Land is generally stable, there is limited topographic relief, and hence limited erosion potential</li> </ul>
2.5 have potential negative effects related to the remediation of contaminated land?		✓	<ul style="list-style-type: none"> <li>• Field work conducted to-date do not indicate environmental concern associated with contaminated lands/sites</li> <li>• The history of the area is rural and agricultural, therefore with very little potential for contaminated sites being present.</li> </ul>
<b>3. Air and Noise</b>			
3.1 have negative effects on air quality due to emissions of nitrogen dioxide, sulphur dioxide, suspended particulates, or other pollutants?	✓		<ul style="list-style-type: none"> <li>• Equipment and vehicles will emit exhaust during the construction period of the project. The effects will be brief and localized and will, in the long-term, be offset by the generation of clean electricity from the wind farm</li> <li>• There are no air emissions generated from the operation of the wind farm</li> </ul> <p>Mitigation:</p> <ul style="list-style-type: none"> <li>• Installation of wind screens around the construction site and/or watering of site to suppress dust if dry conditions exist.</li> <li>• Contractor responsible for ensuring construction equipment meets MOE and MTO emission requirements</li> </ul>
3.2 cause negative effects from the emission of greenhouse gases (CO <sub>2</sub> , methane)?	✓		<ul style="list-style-type: none"> <li>• Emissions of carbon dioxide or methane will be generated by construction equipment. The effects will be offset by generation of clean electricity from the wind farm</li> </ul> <p>Mitigation</p> <ul style="list-style-type: none"> <li>•</li> </ul>
3.3 cause negative effects from the emission of dust or odour?	✓		<ul style="list-style-type: none"> <li>• Dust will be generated during construction but will occur for only a short in duration and be limited to the lands surrounding the work areas.</li> </ul>
3.4 cause negative effects from the emission of noise?	✓		<ul style="list-style-type: none"> <li>• Noise will be emitted from the wind turbines and can effect sensitive receptors</li> <li>• An acoustic assessment was performed to ensure the wind turbines are set back far enough from</li> </ul>

			residences (> 400 m) to meet compliance requirements.
4. Natural Environment			
4.1 cause negative effects on rare, threatened or endangered species of flora or fauna or their habitat?	✓		<ul style="list-style-type: none"> <li>The Ministry of Natural Resources has identified historical sitings of VTE species within the general area of study for the turbine</li> <li>Area habitats may support such species and disruption/alteration of the habitat could cause negative effects</li> </ul>
4.2 cause negative effects on protected natural areas such as ANSIs, ESAs or other significant natural areas?		✓	<ul style="list-style-type: none"> <li>There are no ANSIs, ESAs, conservation areas, or parks (i.e., National or Provincial) within the study area for the turbine construction</li> </ul>
4.3 cause negative effects on wetlands?		✓	<ul style="list-style-type: none"> <li>There are no provincially and non-provincially significant wetlands identified within the study area</li> </ul>
4.4 have negative effects on wildlife habitat, populations, corridors or movement?	✓		<ul style="list-style-type: none"> <li>The installation of the wind turbines may have potential to affect wildlife habitat.</li> <li>There will be limited clearing of habitat associated with the Project.</li> </ul> Mitigation: <ul style="list-style-type: none"> <li></li> </ul>
4.5 have negative effects on fish or their habitat, spawning, movement or environmental conditions (e.g., water temperature, turbidity, etc.)?		✓	<ul style="list-style-type: none"> <li>No in-water works are proposed.</li> <li>No shoreline works are proposed.</li> </ul>
4.6 have negative effects on migratory birds, including effects on their habitat or staging areas?	✓		<ul style="list-style-type: none"> <li>There is potential to affect migratory birds due to collision with the turbine tower and/or blades</li> <li>Each turbine will have a 20-m diameter footprint</li> </ul> Mitigation: <ul style="list-style-type: none"> <li>Studies have been conducted to ensure that the wind turbines are not located in an area where there are rare and endangered species of birds.</li> </ul>
4.7 have negative effects on locally important or valued ecosystems or vegetation?		✓	<ul style="list-style-type: none"> <li>Each turbine will be located on lands already cleared for rural and agricultural land-uses which means that there should be no negative effect on valued ecosystems or vegetation</li> </ul>
5. Resources			
5.1 result in inefficient (below 40%) use of a non-renewable resource (efficiency is defined as the ratio of output energy to input energy, where output energy includes electricity produced plus useful heat captured)?		✓	<ul style="list-style-type: none"> <li>The electricity created by the Project is generated from wind – a renewable resource</li> </ul>
5.2 have negative effects on the use of Canada Land Inventory Class 1-3, specialty crop or locally significant agricultural lands?	✓		<ul style="list-style-type: none"> <li>Some of the wind turbines will occupy areas of agricultural land (20-m diameter footprint for each)</li> <li>The operation of the wind turbines will not negatively affect the use of adjoining prime agricultural lands, field crop production, or livestock pasturing, all of which can occur in close proximity to the wind turbines</li> </ul> Mitigation: <ul style="list-style-type: none"> <li>Of the 12 wind turbines, only 6 are located on</li> </ul>

			agricultural lands.
5.3 have negative effects on existing agricultural production?	✓		<ul style="list-style-type: none"> <li>• Agricultural production on the lands occupied by the wind turbines will be discontinued over the Project life.</li> <li>• To mitigate the loss of income from farming the lands, landowners will be financially compensated for the allowing the turbines on their property</li> </ul> Mitigation: <ul style="list-style-type: none"> <li>• The footprint of each wind turbine is 20-m in diameter</li> </ul>
5.4 have negative effects on the availability of mineral, aggregate or petroleum resources?		✓	<ul style="list-style-type: none"> <li>• There are no known petroleum resources within the study area</li> <li>• There are no designated mineral or aggregate resources within the lands proposed for the Project</li> </ul>
5.5 have negative effects on the availability of forest resources?		✓	<ul style="list-style-type: none"> <li>• Construction of the wind turbines will not affect any merchantable forest resources</li> </ul>
5.6 have negative effects on game and fishery resources, including negative effects caused by creating access to previously inaccessible areas?		✓	<ul style="list-style-type: none"> <li>• The area is largely cleared for agriculture and there are no areas that could be deemed inaccessible</li> <li>• There will be no construction near the Grand River</li> </ul>
6. Socio-economic			
6.1 have negative effects on neighbourhood or community character?		✓	The present rural / agricultural character of the community will remain.
6.2 have negative effects on local businesses, institutions or public facilities?		✓	<ul style="list-style-type: none"> <li>• Area businesses will benefit financially from construction activities and fulfilling operational supplies</li> <li>• Temporary construction jobs and full-time maintenance jobs will be created.</li> <li>• There is no retail or commercial businesses within the study area other than the golf course.</li> </ul>
6.3 have negative effects on recreation, cottaging or tourism?		✓	<ul style="list-style-type: none"> <li>• The Project is sited on rural / agricultural land</li> <li>• There are no known cottaging areas within the study area</li> <li>• It is not anticipated that golf course attendance will drop as a result of the presence of wind turbines,</li> </ul>
6.4 have negative effects related to increases in the demands on community services and infrastructure?		✓	<ul style="list-style-type: none"> <li>• One or two personnel will be required to maintain the wind farm, therefore there will be only a nominal demand on/for public services (e.g., housing, hospitals, and schools)</li> <li>• The Project will not be physically connected to community services or infrastructure and hence no increases for these services is required (e.g., no new demand for potable water or wastewater connections)</li> </ul>
6.5 have negative effects on the economic base of a municipality or community?		✓	<ul style="list-style-type: none"> <li>• Each land owner will be financially compensated for the wind turbines located on their property.</li> <li>• Additional resources will be added to the economic base (e.g., through annual taxation) without creating the demand for additional municipal services</li> <li>• Efforts will be made to utilize local goods and services will be procured during construction,</li> </ul>

			operation and maintenance, and decommissioning of the Project – creating a positive economic effect
6.6 have negative effects on local employment and labour supply?		✓	<ul style="list-style-type: none"> <li>To the extent possible, local persons will be employed during the construction phase and to provide operational supplies – creating a positive effect for local labour and employment</li> </ul>
6.7 have negative effects related to traffic?	✓		<ul style="list-style-type: none"> <li>The transport of equipment and supplies during the construction phase will result in additional (temporary) road use and traffic to the Project sites carrying excess loads and large tower components</li> <li>Numerous trucks trips will be required for equipment transportation during Project construction</li> <li>During operation supplies will be intermittently delivered to the Project as required</li> </ul> Mitigation: <ul style="list-style-type: none"> <li>Local residents will be made aware of the possible traffic disruptions during construction through the use of road signage</li> </ul>
6.8 cause public concerns related to public health and safety?	✓		<ul style="list-style-type: none"> <li>Potential exists for accidents and malfunctions and thus there may be general public safety concerns with the new infrastructure.</li> </ul> Mitigation: <ul style="list-style-type: none"> <li>Discussions on health and safety issues are part of the public consultation process during the EA.</li> <li>There is a minimum separation distance of 400 m between the wind turbine and any residence.</li> </ul>
7. Heritage and Culture			
7.1 have negative effects on heritage buildings, structures or sites, archaeological resources, or cultural heritage landscapes?		✓	<ul style="list-style-type: none"> <li>Lands affected by the Project have been identified as having a low potential for archaeological resources</li> <li>No known heritage buildings, structures, or sites, nor any cultural heritage landscapes have been identified within the Project sites</li> </ul>
7.2 have negative effects on scenic or aesthetically pleasing landscapes or views?	✓		<ul style="list-style-type: none"> <li>With a hub height of 80 metres, the wind turbines could be seen from some distance and thus alter landscapes and views</li> </ul> Mitigation: <ul style="list-style-type: none"> <li>There is nothing that can be done to alter the appearance of the wind turbines.</li> </ul>
8. Aboriginal			
8.1 cause negative effects on First Nations or other Aboriginal communities?		✓	<ul style="list-style-type: none"> <li>There are no known First Nations or Aboriginal communities within the study area</li> <li>The nearest First Nation settlement is over 10-km away</li> </ul>
9. Other			
9.1 result in the creation of waste materials requiring disposal?	✓		<ul style="list-style-type: none"> <li>Construction wastes, such as excavated soils, equipment packaging and wrappings, and scraps, will be produced</li> <li>The Project will generate waste associated with turbine construction, maintenance and operation</li> </ul> Mitigation: <ul style="list-style-type: none"> <li>Waste material will either be recycled or disposed at local landfills</li> </ul>

9.2 cause any other negative environmental effects not covered by the criteria outlined above?	✓	<ul style="list-style-type: none"><li>• Potential accidents and malfunctions including seismicity, third party damage and aeronautical obstruction could occur.</li></ul> Mitigation: <ul style="list-style-type: none"><li>• Regular maintenance of wind turbines will occur in accordance with the manufacturer's requirements.</li><li>• The Grand Valley Public School will be offered educational materials on the advantages, disadvantages and dangers of wind turbines.</li><li>• The wind turbines will be lit at night in accordance with federal aviation regulations.</li></ul>
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