Amherst Island Wind Energy Project

Frequently Asked Questions

The following has been prepared in response to common questions/concerns raised by stakeholders during the Amherst Island Wind Energy Project ("the Project"). The purpose of this document is to provide stakeholders with a general response to their questions/concerns.

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Project Overall

Who is the developer of the proposed project?

Windlectric Inc. is the owner of the project and responsible for all aspects of construction and operation. Windlectric intends to continue to own and operate the project throughout its life; however, the project could be sold or transferred to another company in the future.

What is the proposed project?

Windlectric Inc. is proposing to develop, construct, and operate the 56 - 75 megawatt (MW) Amherst Island Wind Energy Project within Loyalist Township in the County of Lennox and Addington in eastern Ontario, in response to the Government of Ontario's initiative to promote the development of renewable electricity in the province.

Where is the project being proposed?

The Project Location includes lands on Amherst Island, and a corridor stretching between the Island and the mainland where the submarine cable is proposed. The mainland portion of the Project Location stretches from the mainland shoreline, north of the Invista Transformer Station and is generally bounded by i) County Road 4 to the West; ii) the Canadian National Railway line to the North; and iii) approximately 500 m East of Jim Snow Drive to the East

The preliminary layout showing the location of the proposed turbines was available for review and comment at two separate public open houses (drop-in style meetings) in early December 2011. The revised layout was provided at the final public open houses (drop-in style meetings) in March 2013.

Following the open houses, the display material, including the preliminary layout showing the location of the proposed turbines, was posted to our Project website.

The Project Description Report available on the Project website contains the most up to date layout and Project configuration information available.

Who is the lead consultant on the project?

The lead consultant for preparation of the Renewable Energy Approval (REA) application is Stantec Consulting Ltd. ("Stantec"). Stantec provides professional consulting services in planning, engineering, architecture, interior design, landscape architecture, surveying, environmental sciences, project management, and project economics for infrastructure and facilities projects.

What are the proposed timelines for the Project?

The table below provides an overview of the projected dates associated with the Project.

Project Schedule Overview		
Milestone	Approximate Date	
Initiate Public REA Process	May 2011	
REA technical studies	Ongoing through early 2013	
Public Open House #1	December 2011	
Draft REA Reports to Public	December 2012	
Public Open House #2	March 2013	
REA Approval	December 2013	
Start of Construction	January 2014	
Commercial Operation Date (COD)	Approximately Q3 2015	
Repowering/Decommissioning	2035 (approximately 20 years after COD)	

Who do we contact for more information? / Where can I access more information?

Website:	www.amherstislandwindproject.com
Email address:	windlectric@amherstislandwindproject.com
Mailing address:	2845 Bristol Circle, Oakville, ON Canada, L6H 7H7
Phone number:	1-855-466-8068 (Toll Free)
Fax number:	905-465-4514

What are the basic project components?

Basic project components include:

- Up to 24 Siemens SWT-2.3-113 2300 kW and 12 Siemens SWT-2.3-113 2221 kW model wind turbine generators (total installed nameplate capacity of approximately 56 75 MW);
- A 34.5 kilovolt (kV) electrical power line collector system (will be buried where possible);
- Fibre optic data lines from each turbine and/or wireless technology for the communication of data;
- A transmission line;
- Truck turnaround areas;
- A submarine cable;
- An operations and maintenance building;
- A permanent dock;
- A substation (on the island);
- A switching station (on the mainland);
- An un-serviced storage shed;
- One connection point to the existing electrical system;
- Cable vault areas;
- Meteorological tower(s) (met tower);
- Access road(s) to the met tower site(s); and,
- Access roads to turbine components and infrastructure.

Temporary components during construction may include staging areas for the turbines, access roads, met tower(s), collector lines and transmission line as well as crane paths, a temporary dock, site office(s), batch plant, central staging areas, and associated watercourse crossings. The electrical power line collector system would transport the electricity generated from each turbine to the substation, along the submarine cable to the mainland and then to a switching station located near to an existing Hydro One Networks Inc. (HONI) 115 kV transmission line.

The Proponent has elected to assess and seek approval for some alternative Project configurations. The REA application process will consider:

- two alternative mainland transmission line routes;
- two alternative switching station locations and corresponding point of common coupling with the HONI line;
- three alternative mainland temporary dock locations along the mainland;
- a submarine cable with three alternative submarine cable routes near the mainland;
- three alternative mainland submarine cable landing locations and corresponding cable vault locations;
- up to three alternative met tower locations; and,

up to three potential locations for an operations and maintenance building.

Final selection of the sites to be used would be based on the results of consultation activities, detailed design / engineering work, and the conditions experienced during construction.

Project Study Area versus Project Location

In accordance with O. Reg. 359/09, the Project Location includes all land and buildings/structures associated with the Project and any air space in which the Project will occupy. This includes structures such as turbines, access roads and power lines as well as any temporary work areas (the 'constructible area' for the Project) which are required to be utilized during the construction of the Project. The entire constructible area may not be used at each Project Location. The constructible areas have been reduced in size in areas where constraints exist (e.g. natural features) and construction will be limited to the smaller area.

The boundary of the Project Location is used for defining setback and site investigation distances according to O. Reg. 359/09.

Although O. Reg. 359/09 considers the REA process in terms of the Project Location, the siting process for wind projects is an iterative process, and final location of Project components is not available at Project outset. Therefore, a Project Study Area is developed to examine the general area within which the Project components may be sited; information gathered within this larger area feeds into the siting exercise.

Project Description Report

The Project Description Report (PDR) is the summary document for an application for a Renewable Energy Approval (REA). It is required for all proposed renewable energy projects if they require a

REA under O. Reg. 359/09. The PDR provides a brief description of the renewable energy project as well as the potential environmental effects that may result from the project. The PDR is also an important stakeholder consultation tool as it provides insight into the additional reports that are required to be filed as part of the REA application and summarises the proposed project activities to be undertaken as well as their associated potential impacts. Once the PDR is finalized it effectively becomes the executive summary of the project.

The required content of the PDR is stipulated in Table 1. of O.Reg.359/09. The level of detail indicated in the table reflects that which would be required for the final submitted PDR. For most projects draft versions of the PDR are prepared prior to the finalization of the REA application. The content of the draft PDR continuously evolves from the first version as the proponent progresses through the REA process. For example, as the project moves forward the description of the project and its potential environmental effects will be refined from the conclusions of required technical investigations and from comments received during consultation.

Electrical Interconnection

The current plan is to place the electrical power line collector system, on the island, underground where physically possible (considering all technical and regulatory constraints). The location of the electrical collection system will be finalized during the siting process.

As indicated above the project will also require the installation of an electrical submarine cable from the island to the mainland. The final location has not been completed. Work on this segment of the project is ongoing and further details will be provided in the near future.

Adequacy of the Wind Source and Physical Land Mass to Support the Project

Windlectric Inc. has undertaken the appropriate due diligence with respect to determining that the wind resources are sufficient for the construction of the proposal wind project. In addition, the internal business analysis has also determined that the land that is under signed agreement the will be sufficient for the development of the Project.

Setbacks

A key component of the REA process is the establishment of common setbacks for all renewable energy facilities in the Province. Where Project related infrastructure will be located within the setback distances, additional analysis (ie. Environmental Impact Study) will be provided in the REA application and summarized in the final Project Description Report. Key setbacks which will be applied throughout the design of the Project are listed on the project website at the following link:

http://www.amherstislandwindproject.com/renewable-energy-approval-process-setbacks.pdf

Noise

The Project has been sited to comply with the requirements of O. Reg. 359/09. A Noise Assessment was conducted by HATCH in compliance with the Ontario Ministry of Environment requirements published in the "Noise Guidelines for Wind Farms (October 2008)" and the requirements of the REA regulation O. Reg. 359/09. The Noise Assessment was used for siting the wind turbine generators. The final Noise Assessment Report, will be reviewed by noise specialists at the MOE as part of the REA application review process. The draft Noise Assessment Report is also available on the Project website.

The following is a general overview of the noise impact assessment methodology. For a complete and full understanding of the process required to conduct a Noise Impact Assessment please refer to O. Reg. 359/09 and "Noise Guidelines for Wind Farms (October 2008)".

As per MOE guidelines, a predictive analysis of the wind farm noise from the sources (turbine and substation transformer) to a noise sensitive receptor is carried out using ISO (International Organization for Standardization) ISO 9613 (Part 1 and 2) "Attenuation of sound during propagation outdoors".

For the purpose of the assessment, wind direction will be assumed to be from every single wind turbine to every single receptor (down wind conditions). The compliance will be demonstrated during a predictable worst case hour in which all wind turbines produces at maximum sound power level and that is propagating towards every single receptor under a downwind /moderate temperature inversion conditions.

As per MOE/ O. Reg. 359/09 requirements, all turbines will meet the minimum setback of 550 meters from any non-participating receptors. As per MOE requirements, turbine locations will be selected such that all non-participating receptors comply with the 40.0 dBA performance limit established by MOE during a predictable worst case scenario.

The sound propagation from a source to a receiver depends on several factors that include:

- location of the wind turbines and its sound radiation (sound power level), its height
- relative location of the receiver (i.e. receptor) (e.g. a house)
- other factors such as ground reflection/absorption of sound, atmospheric absorption of sound, any obstacles that could block the sound, etc.

Location of the wind turbine will be based on the wind resources and meeting all constrains including the distance setback from dwellings (550 m) and other environmental constraints (distance from water bodies and streams, wooded areas, roads, etc.) to identify potential areas available for development. The height and the emitted sound levels will be based on the manufacturer data, and adjusted to reflect the wind speed change conditions at the project site (wind shear). Then, the wind turbines are located so that the sound levels at the receptors agree with the performance limit defined by MOE (40 dBA for rural areas, night time).

For the assessment purposes, the locations of receptors were defined following MOE guidelines. Two types of receptors are considered: existing (dwellings – houses, schools, hospitals, places of worship, campsites, etc.) and vacant lots (areas zoned to be residential, but currently without dwellings). The location of the existing receptors is defined based on a combination of mapping, GPS surveys, satellite and aerial high-resolution imagery. Following MOE guidelines, the vacant lots are to be placed according to the existing building pattern of the area, in terms of distance to the road and location within the parcel. The areas zoned to be industrial (or non-residential in general) do not have receptors associated with them. Inaccessible vacant lots (vacant lots with no direct access though roads or streams) do not require a receptor.

Other factors - The attenuation (reduction) of the sound considered in the model includes ground absorption, atmospheric absorption and distance attenuation components as defined in the ISO standard/MOE guidelines. Obstacles like buildings and trees will not be considered in the model. The substation transformer is also considered as a source and included in the sound model. The sound levels of the substation/transformer are typically defined based on the NEMA (National Electrical Manufacturers Association) standard TR-1, or CSA (Canadian Standard Association) standard CSA-C88-M90 which establish maximum sound levels for substations/transformers. If there are other wind projects within 5 km of any of the receptors associated with the current project, these are included in the model as additional sources (including substation transformers), to account for the cumulative effects.

As part of the final noise assessment report, the consultant must provide all the information related to the model to MOE, including noise data, location of receptors and sources, distances to receptors, etc.

Do all wind projects require a noise assessment report to be conducted?

The Provincial regulations stipulate that wind projects having a sound power level >102 dBA must have a setback >550m (distance relative to number of turbines being proposed), however, if a developer undertakes a noise study (acoustical assessment) following the MOE's guideline entitled "Noise Guidelines for Wind farms" (referenced above) and the study results comply with the MOE guidelines then the setback distances can be reduced to 550m.

What sound sources does the noise impact assessment consider? Does it consider noise emitted by waves and gale force winds that are heard on the island?

The noise assessment considers only the sources of sound introduced by the wind project in determining compliance. As discussed above, the compliance will be demonstrated considering other neighboring wind projects, if applicable (within 5 km from receptors associated with the current project).

Is it possible that islanders will hear sound louder than what is forecasted in the noise impact assessment during hazy, high humidity days?

A number of parameters play a role when assessing if noise can be heard in certain locations from the wind turbines. Our experience tells us that some people can hear wind turbines during times of high humidity combined with still air conditions on the ground (but moving air at turbine height), however the sound is faint and intermittent. It is uncommon to find environmental conditions that result in this sound being "heard" at long distances.

What noise monitoring occurs during operations?

An acoustic audit may be conducted after a 3-month operation period if needed, according to MOE regulations and procedures. If sound levels are found to be above the performance limit, the wind turbine operation is modified to reduce sound emissions, mainly by reducing rotational speed or interruption of operation.

The name and model of sound monitoring equipment used would be based on MOE procedures for acoustic audits of wind farms, including minimum requirements for the instrumentation and methodology. Typically, a sound level meter with octave band capabilities is used for time periods of no less than 48 hours.

Health and Safety

Will there be health impacts as a result of the turbines being located near existing residences?

An assessment of potential effects related to public health and safety is included within the Draft Renewable Energy Approval (REA) reports, which are available to the public for review on the Project website.

Under O. Reg. 359/09, minimum setback requirements (which this Project will meet) were introduced by the Ministry of the Environment (MOE) specifically to ensure the protection of people and the environment from wind farm projects. The setback distance to a non-participating dwelling (or school, heritage building, etc.) is a minimum of 550 metres from the centre of the turbine base.

Health and medical agencies agree that when sited properly, wind turbines are not causally related to adverse effects. This information was discussed with many stakeholders during the meetings by the subject matter experts from Intrinsik Consulting. Note: the proposed Amherst Island wind project will adhere to the provincial regulations for setbacks related to non-participating residents.

Through our health consultants Intrinsik Environmental Sciences, Algonquin Power has committed to keeping informed on the issue of possible health effects and wind turbines.

Will there be impacts from shadow flicker on nearby residents?

By following the setback distances required under O. Reg. 359/09 it is anticipated that there will be no adverse impacts from shadow flicker during operations of the Project. Considering the community's interest in shadow flicker however, Windlectric has conducted a draft shadow flicker study. The results of the draft shadow flicker study were provided during the final open house for the Project and are available on the Project website.

Will there be impacts from stray voltage during operations of the Project?

Stray voltage is an extraneous voltage that is related to the transmission of electricity, not the production of electricity. Stray voltage appears on grounded surfaces in buildings, barns and other structures. Stray voltage is a direct result of poor grounding practices, improper or inadequate wiring or the breakdown of insulation in old wires or electrical loads. Information about stray voltage can be found here: http://www.hydroone.com/MyBusiness/MyFarm/Pages/StrayVoltage.aspx. The Project's electrical collection system would avoid these causes of stray voltage by incorporating all new construction in accordance with standard utility practice and meeting the required stringent design and inspection requirements of the Electrical Safety Authority.

Visual Impacts

What will the visual impacts be from the project?

Although the positive or negative visual impact of the project is a subjective consideration that does not form part of REA process, Windlectric has completed a Visual Impact Assessment which created photo simulations of what the wind farm project may look like during operations. The photo simulations were provided during the final open house for the Project and are available on the Project website within the Draft Heritage Assessment Report.

Will the aeronautical obstruction lights be radar activated?

Windlectric is currently investigating the feasibility of an aeronautical obstruction lighting system that is activated only when aircraft are in the area.

Property Values

Windlectric acknowledges public comments and concerns related to potential property value impacts. Based upon the published reports reviewed to date based on data from other areas with established wind plants, there is little evidence of a material negative effect on property value as a result of the presence of a wind project. A recent decision in 2012 by the Ontario Assessment Review Board ruled that there is no evidence that the presence of a wind farm affected the value of a waterfront property on Wolfe Island located in the Township of Frontenac Islands on Lake Ontario. As a result of their review and subsequent findings, the Board concluded that there was nothing to indicate that the value of the property had been negatively affected by the creation or operation of the wind farm and confirmed the Municipal Property Assessment Corporation's (MPAC) assessment of the property. To date, MPAC's analysis of sales has not indicated that the presence of wind turbines that are either abutting or in proximity to a property has either a positive or negative impact on its value.

Windlectric Inc. does not intend to compensate home owners for any changes (either positive or negative) to property values.

Taxes

See section titled "Community Benefits"

Traffic and Impacts to Roads

What is the transportation route the project will use? Who will pay for road repairs/upgrades?

Available details regarding the potential transportation routes to the site are provided in the draft REA reports. Discussions will take place with county and township staff related to the development of a Traffic Management Plan to address aspects such as the identification of the transportation route(s), road upgrades/repairs, and traffic planning issues. Preliminary, design and planning work completed to date was presented on January 29th at the Loyalist Township town hall road infrastructure meeting, and is available on the Project website.

Any damages/repairs to local roads as a result of Project construction including the transportation of Project components will be the responsibility of Windlectric. Windlectric will also develop a Traffic Management Plan with the County and Township to specifically address local concerns related to the transport of Project components and impacts to County and Township roads/traffic.

What measures will be used to control traffic and maintain public safety?

A Public Safety Plan would be developed by the Construction Contractor for the protection of public safety during the construction and decommissioning phases, Windlectric and/or the Operation and Maintenance Contractor would prepare and implement a Public Safety Plan for operation of the Project. The Public Safety Plan may include site access restrictions. A description of the Public Safety Plan will be considered in the Construction Plan Report and the Design and Operations Report. The reports form part of the complete REA application package. The draft REA reports are available for public review. The effect of constructing and operating the project is

anticipated to have a limited, short term effect on traffic. Traffic will be managed through the implementation of a Traffic Management Plan.

Heritage Resources

How will the project avoid damage to the heritage resources such as historic stone fences? Specific sections of the O. Reg. 359/09 pertain to Heritage Resources, specifically heritage resources and cultural heritage landscapes. In order to meet the conditions of the regulation, a Heritage Assessment of the location of the Project will be conducted. The Heritage Assessment Report that is required as part of the Renewable Energy Approval application package is available for public review on the Project website.

The project layout has been designed to avoid the stone fences wherever possible. At this time it is anticipated that, in order to minimize potential effects to the stone fences, a pre-construction survey will be undertaken to determine the stability of the walls prior to any below-grade construction in their vicinity. Construction activities in those areas will be monitored to determine that vibration levels that may damage the walls are not exceeded.

A confirmation letter for the draft Heritage Assessment report has been received from the Ministry of Tourism and Culture and Sport.

Archaeological Assessment

The Project is subject to the Environmental Protection Act of Ontario (Act) Part V.0.1 and Ontario Regulation 359/09. Sections s.22 (1), (2), and (3) of Ontario Regulation 359/09, Renewable Energy Approvals (REA) under Part V.0.1 of the Act pertain to Archaeological Resources. The Stage 1 and Stage 2 Archaeological Assessment, which are available on the Project website, were conducted in accordance with these sections of Ontario Regulation 359/09 and the Ministry of Tourism and Culture's 2011 Standards and Guidelines for Consultant Archaeologists.

The Stage 1 Archaeological Assessment entails a desk top assessment of potential archaeological resources that are located within the Project Study Area. The Stage 2 Archaeological Assessment is a pedestrian survey of lands ploughed in the locations where project components are proposed to be located (e.g. turbines, access roads etc.). The land is ploughed to Ministry of Tourism and Culture and Sport specifications. The locations of all artifacts are documented and located using GPS coordinates. The Stage 1 and 2 Archaeology Assessment was directed by a professional archaeologist licensed with the Ministry of Tourism and Culture and who holds a professional archaeologist consulting license (the licensed archaeologist for this project is employed by Stantec Consulting Ltd.). Any artifacts (for example; pottery shards, buttons, plates, etc) removed from the field are catalogued by the archaeologist and stored. The disposition of the artifacts subsequent to their removal from the field is at the discretion of the archaeologist and Ministry of Tourism and Culture and Sport.

Confirmation letters for both reports have been received from the Ministry of Tourism and Culture and Sport.

Construction

What impacts will there be from Construction of the Project?

Potential effects from construction are discussed in the draft Construction Plan Report. The report forms part of the complete REA application package that is available for public review on the Project website.

How will the project be constructed?

A description of construction activities will be discussed in the draft Construction Plan Report. The report forms part of the complete REA application package that is available for public review on the Project website.

Will Windlectric be building a cement plant on the island for construction?

It is expected that a temporary batch plant will be installed on the island to support construction of the Project. Details of the proposed batch plant are provided in the Draft Construction Plan Report which is available for review by the public on the Project website.

Who is paying for construction of the Project?

Windlectric is the proponent for the project and is paying for construction of the project.

Operations

How will project components be transported to the island during maintenance activities? At this time, it is anticipated that a temporary dock will be installed to transport Project components to and from the Island. However, if required, a permanent dock may be installed (during construction of the Project) instead. The requirement for a temporary or permanent dock will be determined and examined during the REA process. As previously discussed, installation of all Project components will comply with the required federal, provincial and municipal level multiple permits, licenses and authorizations.

Details regarding maintenance activities, including transportation of project components during operations, are provided in the Draft Design and Operations Report. The Draft Design and Operations Report is required as part of the Renewable Energy Approval application package, and is available for public review on the Project website.

Can the wind turbines withstand extreme weather events?

Project components will be designed to withstand the effects from extreme weather events including high winds. Considering the design features of the turbine which act to reduce or eliminate the potential for damage from extreme events, no adverse net effects from extreme weather events are anticipated during operation of the Project.

Will ice build-up on the wind turbines?

The meteorological conditions that would cause the formation of ice on wind turbine blades in the Project area is a rare occurrence. Even under those conditions however, ice throw is controlled in modern wind turbines through the use of sophisticated controls that stop the operation of the wind turbine under such conditions.

What monitoring activities will take place during operations?

A description of the operations monitoring and contingency planning program will be included in the Draft Design and Operations Report. The monitoring program will be designed to allow Windlectric and/or the Operation and Maintenance Contractor to monitor and assess the effectiveness of any proposed management measures/mitigation measures and to verify compliance of the Project with O. Reg. 359/09.

Windlectric and/or the Operation and Maintenance Contractor would be the primary organization responsible for the implementation of the operational monitoring and contingency planning measures.

The Draft Design and Operations Report is required as part of the Renewable Energy Approval application package, and is available for public review on the Project website.

Will there be vibrations from the turbines during operations?

The levels of vibration from wind turbines are so small that only the most sophisticated instrumentation and data processing can reveal their presence, and they are almost impossible to detect. Vibrations at this level and in this frequency range will be available from all kinds of sources such as traffic and background noise - they are not confined to wind turbines (Renewable UK, 2005).

Complaint Response Protocol

Windlectric Inc. will continue its pre-construction contact with Project stakeholders during construction and operations as long as this seems an effective two-way channel for communication. Windlectric and/or the Construction Contractor and/or the Operations Contractor will develop and implement a Complaint Response Protocol for the construction and operation phase to address any reasonable concern from the public. Any issues brought forward will be assessed and addressed on a case by case basis. All reasonable commercial efforts would be made to take appropriate action as a result of concerns as soon as practicable.

Decommissioning

Who is responsible for decommissioning the project?

At the end of the project's life expected to be at least 20 years, Windlectric will repower or decommission the project. Windlectric is responsible for the decommissioning of the project including the cost of component removal. Windlectric has committed to returning the site to a safe and clean condition after decommissioning of the Project in accordance with requirements to be determined prior to decommissioning. A site restoration plan would be developed based on the standards and best practices at the time of decommissioning.

Decommissioning would include the dismantling and removal of facility components including foundations to a depth of 1m below grade, and restoring the land. Components would be recycled or reused wherever possible.

A Decommissioning Plan Report is required as part of the Renewable Energy Approval application package, and is available for public review on the Project website.

Natural Environment

How is the natural environment being taken into consideration during the project?

A Natural Heritage Assessment (NHA) will be completed as part of the project. The NHA will determine the significance of the island for land based birds, raptors and migratory birds including an area of significant wildlife habitat in the form of seasonal concentration areas – stopover habitat for migratory land birds. The potential effects to birds using this habitat and mitigation measures to minimize these effects will be discussed in the NHA. The NHA also assesses terrestrial habitat and plant life and communities.

Windlectric will implement mitigation measures presented in the REA Application documents to minimize and/or avoid sensitive plant and animal habitat.

Potential effects to natural heritage features are described in the Draft Natural Heritage Assessment Report. The report forms part of the complete REA application package and is available for public review on the Project website.

How many trees will be cut down for the placement of project components?

Impacts to trees will be minimized to the extent possible during construction of the Project. Avoidance will be the main strategy used to minimize impacts to trees and woodland habitat. Windlectric Inc is undertaking an extensive assessment, considering all regulatory and engineering constraints to work toward the final layout.

Potential effects to natural heritage features are described in the Draft Natural Heritage Assessment Report. The report forms part of the complete REA application package that is available for public review on the Project website.

How are waterfowl being considered during the NHA?

Amherst Island is a known area for concentrations of waterfowl, which stage in offshore bays during their spring and fall migration. Many of these species known to use these bays (i.e. Bufflehead, Goldeneye, Scaup) typically avoid flying over land and remain offshore. However some species do make regular overland flights, either into fields for foraging or simply as a direct route between bays.

Scientific studies indicate that few waterfowl fatalities occur as a result of contact with wind turbines, relative to the numbers of waterfowl present, due to avoidance behaviours. Waterfowl often fly at blade height, however, waterfowl are known to increase their flight height to avoid collisions with turbines. It is anticipated that waterfowl would avoid and adapt to the presence of wind turbines. Collision and direct mortality of migratory waterfowl is not expected to be a significant issue for a wind plant on Amherst Island. It is anticipated waterfowl will simply fly between turbines; a behavior that is routinely observed at other wind farms. Additional information about the potential effects to waterfowl is documented in the Draft Natural Heritage Assessment Report. The report forms part of the complete REA application package that is available for public review on the Project website.

What response can you provide to Mr. Whittaker, Vice President Policy, Canadian Wind Energy Association who testified before the Senate Standing Committee on Energy, the Environment and Natural Resources saying that "they cannot put them (turbines) anywhere

near any area where there is an endangered species or anywhere where there are potential risks for migratory birds"?

Windlectric contacted CanWEA directly and asked for a formal response to this inquiry. The following is a direct quote from CanWEA.

"Mr. Whitaker was describing the factors considered in the regulatory process for approval and siting of wind farms in Canada in a general way, and his remarks should not be interpreted as being representative or inclusive of all provincial or federal regulations concerning the development of individual wind energy projects. Projects in Ontario must meet strict environmental guidelines that are in place to protect natural habitat and wildlife prior to the approval of any development and, if approved, must work to ensure the mitigation of impacts to habitat and wildlife during operation. The Canadian Wind Energy Association and its members work within a mandate of responsible and sustainable development practices. The industry works closely with science and wildlife experts to implement continued efforts to reduce impacts to avian species and to ensure compliance with all government regulations. Approval of wind energy developments and project siting ultimately rests with the Government of Ontario." (CanWEA, 2012)

How has the presence of the Important Bird Area and the Owl Woods been considered?

The Amherst Island Important Bird Areas (IBA) encompasses the entire island and adjacent offshore areas. It has been identified as an IBA for the high numbers of Brant recorded in off-shore waters surrounding the island during their fall migration. While IBAs do not have any legal protection under provincial government, the functions for which they are identified are assessed and considered within the NHA. The process will involve field studies to assess the bird communities and their habitats, identification of significant wildlife habitat, assessment of potential impacts and avoidance and mitigation measures, where required.

The Owl Woods, located in the eastern portion of the island, is a well-known area where wintering owls roost. The presence of this woodland, and the function it provides as a roost area, has been considered through the NHA process. The potential for other woodlands on the island to provide a similar function has also been studied.

In developing the preliminary layout, the significance of the Owl Woods was considered. The closest turbine (from blade tip) was established 100m from the Owl Woods and 500m from the pine plantation within the woods where the majority of owls can be found.

How has the presence of species at risk been considered in the development of the preliminary layout?

Surveys to document species at risk and map the habitats that support these species have been completed. The Ministry of Natural Resources (MNR) has been engaged regarding the implications to species at risk from the Project. Consultation is ongoing regarding survey results, potential impacts and mitigation measures that will be employed to minimize and avoid potential effects.

The Project has considered species at risk habitat during the siting process. To reduce potential impacts to species at risk turbines and other project components have been sited outside of habitats that support these species, wherever possible. This includes siting away from wetlands that contain Least Bittern and Blanding's Turtle.

Species at risk, such as Bobolink, Eastern Meadowlark and Barn Swallow, occur in the agricultural and fallow fields on Amherst Island. In developing the preliminary layout, it was unavoidable to place project components, including turbines, outside these open fields. The MNR will be consulted as to ensure the project is compliant with the Endangered Species Act (ESA). Where required, a permit application under the ESA will be submitted, which will address any habitat loss and/or any risk of fatalities. The permit under the ESA would only be issued if it has been demonstrated that compensation measures have been put in place that will achieve an overall benefit for each species.

How has the risk to migratory birds and bats been considered?

Surveys to assess the species diversity and abundance of migrating birds on Amherst Island have been conducted as part of the NHA; specifically, surveys have been conducted for migrating songbirds, waterfowl and raptors. Based on the result of the field surveys, and available background information, the NHA will identify significant habitat for birds and bats in accordance with provincial guidelines. Where significant habitats occurs in proximity to the project, an Environmental Impact Study will be completed to assess potential impacts to birds and bats and to recommend mitigation measures to avoid or reduce such impacts.

A comprehensive Environmental Effect Monitoring Plan (EEMP) will be implemented to measure the impacts of the facility on migratory birds and bats. The EEMP will include an adaptive management program, which will require the implantation of additional mitigation should significant environmental impacts occur. As an example, in the case of elevated bat mortality, the adaptive management program would require turbines to the shut down during the fall migration period during conditions when bats are most at risk.

What is the Project doing to assess impacts to bats during operations?

Bat mortality rates at wind energy facilities are highly variable among regions. Some species of migratory bats are particularly vulnerable, and mortality peaks during the late summer and early fall migration. The MNR, which is the agency responsible for protecting bats, has produced detailed and prescriptive guidelines for post-construction monitoring of bat mortality, and mandatory mitigation requirements for facilities with high bat mortality. A threshold of 10 bats/turbine/year has been established. Post-construction monitoring for bat mortality will occur at the Amherst Island Wind facility in accordance with standard protocols established by MNR. Reports will be submitted annually and the results reviewed by MNR. If the mortality at the facility exceeds the

threshold, operational mitigation (as detailed in MNR's guidance document) including turbine shut down at specific times of the year would be required for the duration of the project.

Water

How are water bodies being taken into consideration during the project?

A Water Body Assessment (WBA) was completed as part of the project. The WBA included a records review and site investigation to determine the presence and boundaries of water bodies as defined in O.Reg.359/09 within 120 metres (m) of the Project Location (assuming that no lake trout lakes that are at or above development capacity are identified within 300 m). If water bodies were identified within 120 m of the Project Location, an aquatic habitat assessment was completed and a Draft Water Body Report was prepared. The Draft Water Body Report identifies and assesses any adverse environmental effects of the Project on a water body and on land within 30 m of the water body, identifies mitigation measures in respect of any adverse environmental effects, and describes the monitoring plan to address any environmental effects. The Conservation Authority will be consulted for any permits required with respect to work required in or near water bodies. The Water Body Report forms part of the complete REA application package and is available for public review on the Project website.

What potential effect will the project have on ground water and/or water wells?

There should be no impact (on drinking water / to groundwater) as a result of the project. Before excavation commences, a geotechnical study is completed at all potential sites for ground water depth as well as to determine necessary parameters required for foundation design. For stability reasons, turbine foundations cannot be built in areas where the ground water is too close to the surface. If water is encountered at any time, good construction practices will be used such as minimizing the length of time that the excavation is open and monitoring seepage during excavation. Should pumping be required to dewater excavated areas, water will be directed to the closest drain or spread across the construction area and appropriate energy dissipation techniques will be used to reduce the potential for erosion and sourcing. It is unlikely that quantities withdrawn will exceed the threshold for the MOE's requirement for a Temporary Permit to Take Water (i.e. >50,000 L per day) let alone negatively affect off-site groundwater quality, quantity, or movement.Concrete used during the building process becomes inert once it is cured and should cause no damage to the water table.

Aviation Safety, NAV Canada and Transport Canada

Will the project be required to provide information on the NAV Canada and Transport Canada?

The company will request comments/feedback from these organizations in relation to the project layout.

Transport Canada will provide recommendations as to lighting requirements for the turbine towers and Windlectric Inc. will examine all options in order to satisfy Transport Canada.

NAV Canada will provide recommendations with regards to aeronautical safety requirements and Windlectric Inc. will examine all options in order to satisfy NAV Canada.

What are the turbine setbacks to private airstrips?

Aviation safety is the jurisdiction of the Federal Government. As such the project locations have or will be submitted to the Department of National Defense (DND), Transport Canada (TC), and NAV CANADA. The projects will be assessed for Federal Airport Zoning Regulations, for lighting and marking requirements, for impacts to radar and instrument approaches, and other applicable safety elements related to aviation. We will follow and meet the requirements presented by these regulatory bodies, as well as the requirements for a Renewable Energy Approval (through the Ministry of the Environment) as related to aerodromes.

There is no regulated setback to private airstrips in Ontario.

General Turbine Specifications

The following information is based on the Siemens 2.3-113 unit information and other General Technical Information – further information will follow when manufacturer provides updates

- Height 156 m (hub plus tip of blade)
- Weight (approx.) rotor: 66,700 kg. nacelle: 73,000 kg
- Estimated life expectancy of turbines minimum 20 years (repowering of the turbine is feasible for extended life after 20 years depending on the requirements at the time)
- Brief description of turbine blades: These consist of three blades (or airfoils) that are made of fiberglass reinforced epoxy. During manufacturing the blades are cast in one piece to eliminate weaker areas at joints. Each blade has an independent pitching mechanism that can be feathered under any operating condition. Blade pitch can be altered to optimize power output during operation.
- Amount of concrete for foundation: This information is dependent on a geotechnical assessment (including dimensions), completed by a qualified subject matter expert, which will occur in the future, therefore, the estimation is not available at this time.
- Bedrock excavation (if required) at this time it is anticipated that the work would be accomplished using a hoe ram operated from an excavator. Excavated materials will be used in backfilling the foundations, used in road construction, distributed around the property or removed from the site and disposed of at an appropriate facility.
- Temporary docking At present the final location of the temporary dock on the mainland has not been determined. The dock will be utilized to transport construction materials and equipment during construction.
- Operations and maintenance building will store certain maintenance equipment for the project.
- Access roads At this time approximately 14 km of access roads (on private land owned by participating land owners) will be required to access the project components (i.e. turbine locations, operation and maintenance building, etc) during construction and during the operations phase of the project.
- Amount of oil used in the generating unit (hydraulic) approximately 210 litres (hub and nacelle). The manufacturer will be providing maintenance intervals and the amount of fluids that are removed/replaced during each service cycle in the near future.

Note: The requirement will be to dispose of all used oil in an environmentally responsible manner following all Provincial regulatory requirements. In the event of an oil spill

Windlectric (of the designated qualified and competent operator which could be the turbine manufacturer) would be responsible for the response and cleanup.

Liaison Committee

The Liaison Committee includes four local community representatives and a Lead Facilitator (Owner's management representative). Members of the Liaison Committee were solicited by direct invitation to community stakeholders and were appointed by the project proponent. Local community representatives were selected based on their ability and willingness to bring a variety of perspectives from/to the local community. Note that membership on the Liaison Committee does not constitute support, endorsement, or opposition of the Amherst Island Wind Energy Project.

The Liaison Committee was established in June 2011. The Liaison Committee met several times throughout 2011 and 2012. The Liaison Committee Terms of Reference, meeting agendas and meeting notes are available on the Project website.

The Liaison Committee does not replace other means of citizens, agencies or other organizations to express their observations and ideas. The Liaison Committee is one of many forms of communication that have been established for the project. In addition to the Liaison Committee, we have established a project website, email address, mailing address, phone and fax number to facilitate the receipt and response to stakeholder inquiries.

Emergency Response

During pre-construction and pre-operational mobilization Windlectric, the Construction Contractor and/or the Operation and Maintenance Contractor would finalize an Emergency Response Plan for the construction and operational activities in collaboration with the County and Township's Emergency Services Department. The detailed Emergency Response Plans may include protecting the public from equipment and construction areas by posting warning signs, use of personal protective equipment, accident reporting, equipment operation, and confined space entry. Discussions with local emergency services personnel will take place prior to construction and operations to address concerns of local emergency services personnel. If required, Windlectric would participate in a training session for these workers. The development of and proper execution of the Emergency Response Plans would help ensure public safety is maintained throughout the operation of the facility.

Windlectric Inc is corresponding with Ornge to ensure there are no potential effects to the safe use of the emergency helicopter pad on the island.

Land Owner Lease Agreements

There is no gag order in place within the landowner lease agreement.

Windlectric Inc. does not publicly release details of contracts. A copy of the landowner lease agreement will not be made publicly available.

Community Benefits

The Project will bring benefits to the local community including:

• The original draft agreement contribution to the fund will be based on a proposed fixed rate multiplied by the total size of the project.

- Township and Windlectric are currently negotiating the draft agreement
- The original draft agreement proposed that the Township would receive an estimated \$7.5 million from the Community Benefit Fund over the lifespan of the project which could be allocated to new roads, repairs to old buildings or schools, upgrading community centres, refurbishing parking lots, building new parks or restoring the old ones. Windlectric proposes a portion of the Fund be allocated to Amherst Island specifically.
- Indemnity Agreement signed with Township to reimburse their cost for hiring a third party consultant to review the Project REA documents.
- Windlectric is working with the Municipality on a draft Road User Agreement that will ensure the repair (if required) and maintenance of roads utilized by Windlectric on Amherst Island.
- Local businesses will be supported through goods and services procured by construction contractor workers (restaurants, accommodation, local hardware stores etc.).
- Windlectric and its contractors will employ maintenance staff in eastern Ontario.
- Locally-provided trades could include heavy equipment operators, truck drivers, pipefitters, electricians, ironworkers, millwrights and carpenters.
- Landowners with Project infrastructure on their property will receive lease payments from Windlectric (turbines, substations, access roads, etc.).
- Farm operations can continue adjacent to Project infrastructure.
- Following decommissioning, agricultural areas will be restored, and normal farming practices can resume.
- Subject to landowner approval and private property restrictions, hunting and other recreational uses can continue adjacent to Project infrastructure.
- Tax payments to the municipality of approximately \$100,000 to \$150,000 annually in new tax revenues to Loyalist Township.
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Will free power be provided to islanders?/Will our electricity costs go up/down?

Windlectric Inc. submitted an application to the Ontario Power Authority to supply renewable energy to the Province under the Feed-in-Tariff (FIT) program. This provincial initiative is not prescriptive for distributing power to municipalities. Hydro One Networks is the distributor for the island power.

The power that will be generated by the project is sold to the Ontario Power Authority. Windlectric Inc. has no pricing influence in the Province of Ontario.

Miscellaneous

Will the project interfere with TV and/or internet signals?

It has been our experience that wireless internet services will not be affected by wind turbine operation. We will review potential incidents of telecommunication (including internet) interference and/or electrical related concerns on a case by case basis. Windlectric will undertake a telecommunications impact assessment to determine the effect if any wind turbines will have on local telecommunications assets. The criteria for this assessment have been developed through consultation of the wind development industry and the Radio Advisory Board of Canada. In the unlikely event that signal disruption is experienced, mitigation measures are available to alleviate the impact. This may include replacing the receiving antenna with one that has a better discrimination

to the unwanted signals, relocating either the transmitter or receiver, or switching to an alternate means of receiving the information (satellite or other means).

Is the project economically viable?

Windlectric Inc. received a contract from the Ontario Power Authority to supply renewable energy to the Province under the Feed-in-Tariff (FIT) program. The power purchase rate that the program provides is for 13.5 cents/kWh. Windlectric believes the economics of the Project make it viable.

Compatibility of Wind Turbines and Land Use

The amount of land area that a wind turbine occupies (turbine pad with access road) is small compared to the overall acreage that a participating landowner has optioned to lease for a project. The landowner can still use the remaining property for farming or other purposes. The placement of wind turbines adjacent to non-participating property does not prohibit the use (building of homes, barns or other structures) of the land. The only consideration that the adjacent landowner must be aware of is that if the turbine locations have been crystallized (finalized by the developer) and a neighbouring property owner (participating or non-participating) decides to build a home closer than 550 m from the turbine location then the developer does not have to consider this structure as a noise receptor in the project noise modeling assessment (as per the Ministry of Environment regulations).