



CATARAQUI REGION CONSERVATION AUTHORITY

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VIA E-MAIL AND MAIL

Susanne Edwards, Senior Project Evaluator
Operations Division, Environmental Approvals Branch
Ontario Ministry of the Environment
2 St. Clair Avenue West (Floor 12A)
Toronto, ON M4V 1L5

Dear Ms. Edwards,

**RE: PROPOSED AMHERST ISLAND WIND ENERGY PROJECT
APPROVAL FOR A RENEWABLE ENERGY PROJECT – EPA S47.3(1)
ENVIRONMENTAL REGISTRY POSTING 012-0774**

The Cataraqui Region Conservation Authority (CRCA) is writing to provide the Ontario Ministry of the Environment with comments on the proposed Amherst Island Wind Energy Project (Environmental Registry posting 012-0774). These comments were endorsed by the CRCA Full Authority Board on February 26, 2014.

Windlectric Inc. has proposed to install up to 37 turbines across Amherst Island, along with associated support infrastructure. Amherst Island is part of Loyalist Township and the CRCA jurisdiction. The low-lying island in eastern Lake Ontario is about 16 kilometres in length and 5 kilometres in width. It is characterized by agricultural, residential and conservation land uses. The Island supports an array of wildlife and associated habitat, as well as wind energy generation potential¹.

The CRCA has interests in the proposal as a regulator (Ontario Regulation 148/06 Development, Interference with Wetlands and Alterations to Shorelines and Watercourses) and Amherst Island landowner (Owl Woods). With respect to the above-noted regulation the Conservation Authority will work with the applicant to ensure that water-related requirements are achieved.

The Owl Woods property is owned by the CRCA for the protection of significant wildlife habitat. We are concerned about the likely negative environmental effects² of the project on wildlife and its habitat,

¹ Ontario Ministry of Natural Resources 2014 [Renewable Energy Atlas](http://www.gisoeapp.lrc.gov.on.ca/web/MNR/Integration/Renewable/Viewer/Viewer.html)
<http://www.gisoeapp.lrc.gov.on.ca/web/MNR/Integration/Renewable/Viewer/Viewer.html>

² As defined at s.2 of Ontario Regulation 359/09 under the *Environmental Protection Act*.

and we do not believe that sufficient care has been taken by the applicant to assess, avoid or mitigate such effects. Accordingly, at this time our Conservation Authority would not support the issuance of a Renewable Energy Approval by the Ministry for this proposal. This letter provides a rationale for our position.

Pre-application input

CRCA members and staff provided pre-application input to the applicant and Ontario Ministry of Natural Resources about our natural heritage concerns since 2011. We provided extensive comments on the natural heritage report for this project³, and offered to engage in a constructive dialogue with respect to assessing, avoiding and/or mitigating negative effects (e.g. requests for additional field monitoring, revised turbine siting based on proper monitoring). Unfortunately such dialogue has not yet occurred and our written input has not resulted in any substantive changes to these aspects⁴. From our perspective, therefore, the consultation process to-date has not been effective. However, our staff remain interested and available to work with the applicant.

Context

Our Conservation Authority believes that it is important for this renewable energy proposal to be considered within the broader context of Ontario's energy policy and natural heritage systems.

We recognize that Ontario's long term energy plan⁵ calls for an increased percentage of our electricity generation to come from renewable sources. It also calls for increased energy conservation, as well as attention to regional energy planning for Ontario, including opportunities for "early and meaningful involvement" by municipalities⁶.

We support a move towards local, renewable energy. However, it will be important to consider siting opportunities and constraints as part of the transition. The question to be addressed is: where can generation and transmission infrastructure be located in relation to energy sources, demand and existing networks, without causing irreparable harm to communities and the natural environment? The question must be addressed in a comprehensive manner at Provincial and regional scales, with attention to cumulative effects, before there is consideration of individual proposals at a local scale⁷.

Negative environmental effects from wind energy projects will vary between locations; there are particular concerns for wildlife and its habitat. This is important – Ontario's Biodiversity Strategy (2011) indicates that: "loss of habitat is the primary threat to biodiversity in Ontario".⁸

³ Stantec Consulting Ltd. for Windletric Inc. 2012 Amherst Island Wind Energy Project: Natural Heritage Assessment Report – Environmental Impact Study

⁴ The record of interaction at Table 6.2 in the Amherst Island Wind Energy Project: Consultation Report (Stantec Consulting Ltd. 2013) is accurate; however, no substantive changes were made to the project as a result.

⁵ Ontario, Ministry of Energy 2013 Achieving Balance: Ontario's Long-Term Energy Plan Toronto, ON: the Ministry

⁶ Ibid, page 6

⁷ We acknowledge some progress towards planning at broader scales – such as the regional energy planning that is overseen by the Ontario Energy Board, the Large Renewable Procurement Process being developed by the Ontario Power Authority, as well as resources such as the Renewable Energy Atlas (Ontario Ministry of Natural Resources).

⁸ Ontario Biodiversity Council 2011 Renewing our Commitment: Ontario's Biodiversity Strategy (2011) (p.15)
http://www.mnr.gov.on.ca/en/Business/Biodiversity/Publication/STDPROD_091265.html

For example, birds and bats are harmed as a result of both the construction and operation of turbines (e.g. loss of nesting sites, impacts with blades). A recent study of avian mortality from wind turbines in Canada⁹ found that: “population level impacts are unlikely on *most species* of birds, *provided that highly sensitive or rare habitats, as well as concentration areas for species at risk, are avoided*” [emphasis added]. The authors also indicate that raptors (such as owls) warrant special attention, since their low population densities, slow reproductive rates and behavior could result in population impacts.

This information suggests that wind energy proposals for locations such as Amherst Island must be considered in context, and with careful attention to negative effects.

Amherst Island and significant wildlife habitat

The CRCA believes that Amherst Island falls into a category of locations that are not readily suited to large-scale wind energy projects. The opportunity presented by the wind energy potential on the Island is constrained by the presence of extensive significant wildlife habitat.

Amherst Island provides unique habitat for raptors such as owls and other wildlife, including species at risk such as Barn Swallow, Blanding’s Turtle and Bobolink. The Island is listed as a *globally significant* Important Bird Area by Bird Studies Canada / Nature Canada¹⁰. Winter bird counts compiled by Environment Canada¹¹ found Amherst Island to have the highest density of raptors out of 17 sites in southern Ontario, with a density just over two times that of nearby Wolfe Island (which was third out of the 17 sites).

We have some specific concerns, as follows:

- The impact on avian populations has not been sufficiently assessed – there is a reliance on field work from a single year (2011), no assessment of the relationship between the anticipated mortality and regional populations, and no consideration for the cumulative effect of wind turbines at the eastern end of Lake Ontario. We are concerned that species will be lost from Amherst Island;
- Significant wildlife habitat mapping has been prepared for the Island; however:
 - The mapping identifies a broad area of habitat, without specifying the critical areas that support the relevant wildlife species. Without this greater detail it is difficult to assess the effect of particular turbines and roads. The broad definition may also result in a misleading percentage of habitat loss (i.e. artificially low);
 - The mapping is based on form of the habitat rather than how it functions (i.e. how it contributes to life cycle components such as rearing, nesting, foraging, etc.). Without consideration of function it is not possible to properly assess negative effects on each habitat area. We have therefore previously requested or encouraged studies from the applicant that would assist in the determination of function (prey surveys, foraging surveys etc.). Supporting the loss of form without considering function is not appropriate;

⁹ Zimmerling, J. Ryan (*et al*) 2013 ‘Canadian Estimate of Bird Mortality Due to Collisions and Direct Habitat Loss Associated with Wind Turbine Developments’ *Avian Conservation and Ecology* 8(2):10

¹⁰ For more information, see <http://www.ibacanada.com/site.jsp?lang=EN&siteID=ON062>

¹¹ Environment Canada 2006

- Turbines and supporting infrastructure would be located directly within identified significant wildlife habitat. The presence of such habitat does not appear to have been an important factor in the preparation of the site plan. The applicant's natural heritage consultant states that: "Removal of relatively small amounts of hay and pasture habitat was unavoidable while siting the project..."¹². It is not readily apparent that effects on wildlife and its habitat will be mitigated;
- The project would cover most of the Island, leaving little undisturbed habitat as a refuge¹³, and potentially impeding the movement of wildlife around and across the Island¹⁴.

The applicant has not provided sufficient evidence to demonstrate that the proposal can proceed without causing serious and irreversible harm to the wildlife (mortality) and its habitat (loss of critical areas).

Given the global, regional and local significance (ecologically, socially, and economically) of the wildlife habitat on Amherst Island, our anticipation that it would likely be substantially degraded or eliminated by the project, and the apparent inability to avoid and/or sufficiently mitigate the negative environmental effects, a project of this scale may simply not be appropriate for this location. As presented it would not represent an overall environmental 'gain' for Ontario.

Considering the legal tests for approvals

We are aware that Renewable Energy Approvals are issued by the Ministry under the Environmental Protection Act subject to several 'tests'. Broadly, the proposal must be in the public interest. More specifically, Ontario Regulation 359/09 under the Act prohibits renewable energy development within certain types of locations (such as significant wildlife habitat and adjacent lands) unless negative environmental effects have been addressed¹⁵.

In demonstrating how a proposal is compatible with natural heritage features and functions, applicants must follow Provincial inventory and assessment standards (e.g. pre and post-construction monitoring, inventories, evaluation). The Ontario Ministry of Natural Resources (MNR) has issued a letter¹⁶ to confirm that the natural heritage work was completed in accordance with these standards. However, we believe that a more thorough understanding of the significant wildlife habitat is warranted to provide a reliable basis for sound decision-making. While the natural heritage work may meet minimum standards, it is compromised by gaps and limitations. Also, the Provincial standards do not account for unique isolated island communities that should have special attention.

We believe that the legal tests have not yet been achieved for the proposed Amherst Island Wind Energy Project; engaging in the project may cause serious and irreversible harm to animal life and the natural environment. Accordingly, a Renewable Energy Approval would not be in the public interest.

¹² Stantec Consulting Ltd. for Windlectric Inc. 2012 Amherst Island Wind Energy Project: Natural Heritage Assessment Report – Environmental Impact Study (p.5.6; PDF p118) http://www.amherstislandwindproject.com/Technical%20Documents%20Final/06_NHAEIS/NHAEIS_Main-Report.pdf

¹³ The Stantec report narrowly defines the footprint of project as the physical infrastructure (e.g. 17.7 hectares of significant raptor wintering area habitat, page 108) whereas we believe that it should also include the much larger influence areas around the turbines and roads.

¹⁴ Stantec acknowledges that "...the effect of wind farms as barriers to migratory bird movement is not yet fully understood and has not been well studied" (page 125).

¹⁵ Section 38(2) of Ontario Regulation 359/09

¹⁶ MNR to Windlectric Inc., December 14, 2012

Based on the above, we recommend that:

- The Ministry defer issuance of a Renewable Energy Approval for this project until:
 - Negative environmental effects on significant wildlife habitat are understood;
 - The project site plan has been revised to avoid significant wildlife habitat areas; and
 - The applicant has demonstrated that the proposal can proceed without causing serious and irreversible harm to significant wildlife habitat;
- Any approval of this project by the Ministry should be made conditional on the applicant:
 - Monitoring effects on wildlife during construction and operation, with annual reports to the Province, municipality and public; and
 - Preparing and adhering to an adaptive management strategy (for wildlife conservation) throughout the operating period.

We are aware that conditions of this type have been placed on other Renewable Energy Approvals by the Ministry.

Our staff have worked with other renewable energy proponents to help them avoid and mitigate negative environmental effects. As noted above, the CRCA remains available to explore means by which wind energy and wildlife might co-exist on Amherst Island.

We appreciate the Ministry's consideration of our comments. If you have any questions or require additional supporting information about our concerns, please contact Tom Beaubiah, CRCA Biologist at 613-546-4228 ext. 240 or tbeaubiah@crca.ca.

Yours truly,

(original signed by)

Allan McPhail, Chair

c.c. Windlectric Inc.
Loyalist Township
Randy Hillier, MPP, Lanark-Frontenac-Lennox & Addington
Ontario Ministry of Natural Resources, Kingston Area Office