BORNISH WIND ENERGY CENTRE

ADDENDUM, CONSULTATION REPORT

August 2012

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GL Garrad Hassan







TECHNICAL NOTE

Title	Bornish Wind Energy Centre – Addendum, Consultation Report	
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History

Issue	Date	Summary
А	29 August 2012	Original issue

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1 INTRODUCTION

Bornish Wind LP is proposing to develop the Bornish Wind Energy Centre (the "Project") which is subject to Ontario Regulation 359/09 (Renewable Energy Approvals (REA) [1] under Part V.0.1 of the Ontario Environmental Protection Act (EPA)) and Regulation 521/10 [2]. Bornish Wind LP was awarded a FIT Contract for this Project in July 2011 and is seeking a Renewable Energy Approval from the Ontario Ministry of the Environment (MOE). Bornish Wind LP is a wholly-owned subsidiary of NextEra Energy Canada ULC. The parent company of NextEra Energy Canada ULC is NextEra Energy Resources, LLC, with a current portfolio of over 8,800 operating wind turbines across North America.

This Project is considered to be a Class 4 Wind Facility. The Project is located in the Municipality of North Middlesex and is proposed to consist of 45, 1.62 MW turbines with a total nameplate capacity of 72.9 MW, though 48 turbine positions will be permitted.

A Consultation Report for the Project has been prepared and submitted to the MOE in accordance with O. Reg. 359/09, the MOE's "Technical Guide to Renewable Energy Approvals" (2012) [3] as well as the draft MOE Aboriginal Consultation Guide 2011 [4].

At the request of the MOE, an additional Final Public Meeting was held in the municipality of North Middlesex, Ailsa Craig Community Centre on 15 August 2012. This Consultation Addendum summarizes the additional event and stakeholder comments received between July 17 2012 and August 22 2012.

Final

2 PUBLIC CONSULTATIONS

2.1 Public Notices and Meetings

Table 2-1 provides details of the main consultation events undertaken during the period of July 17 2012 – 22 August 2012, as well as other relevant information. Additional information on preceding consultation events conducted for the purpose of O. Reg 359/09 is available in the Bornish Wind Energy Centre Consultation Report submitted as part of the complete REA.

The additional Final Public Meeting took place on 15 August 2012 at the request of the MOE. Additional door to door consultation with landowners along the transmission route also took place throughout July and August and continues as part of NextEra's commitment to Public Consultation.

Event/Activity	Date	Location	Comment
Notice of additional Final Public Meeting		 Delivered to: Municipality of North Middlesex Middlesex County Aboriginal Communities (as outlined in Appendix C of the Bornish Consultation Report) Notice Published: London Free Press, 25 July 2012, 7 August 2012 The Middlesex Banner, 25 July, 8 August 2012 Parkhill Gazette , 26 July 2012, 2 August 2012 Parkhill Gazette , 26 July 2012, 2 August 2012 Turtle Island News 26 July 2012, 8 August 2012 	A second Final Public Meeting was held at the request of the MOE in response to stakeholder inquiries. See Appendix A for a copy of the notice.
Door-to-Door Landowner Consultation – Additional Transmission Line Consultation	July – Aug. 2012	Various Landowners	Additional door-to-door consultation with landowners along the proposed transmission line took place throughout the months of July and August. See Appendix B for field notes
Additional Final Public Meeting	15 Aug. 2012	Ailsa Craig Community Center, 155 Annie Ada Shipley St,	Final public meeting in the REA process. Material provided at this

Table 2-1: Additional Public Consultation

Event/Activity	Date	Location	Comment
		Municipality of North Middlesex	meeting included:
			Complete REA reports
			• Maps of the projects and transmission lines
			Visual simulations
			Noise iso-contour maps
			• Shadow flicker report and illustration
			• The Project Design Change Summary Report identifying changes made to Project infrastructure and associated mapping
			• Other information boards on various environmental topics.
			See Appendix B for sample material at the meeting, and comment forms.

2.2 Feedback Received

Table 2-3 provides a summary of questions and comments received from the public, through comment forms and verbal communication from July 17 through to August 22 2012.

	Comment	Correspondence	Response
			 Stray voltage is addressed in the Project Description Report and the Design and Operations Report. NextEra will ensure that the Project is built and maintained
	Stray voltage and its potential effects on livestock		according to the standards in place as prescribed by the Distribution System Code and the Electrical Safety Authority.
1		Comment form at public meeting	• As the Project is not proposed to connect to the local distribution system that serves barns and houses in the area, it will not directly impact that service. However, NextEra will continue to work closely with Hydro One to mitigate any potential impact on local distribution customers should any issues arise. Hydro One, as required in the interconnection process, has completed a Customer Impact Analysis; no issues were identified.
			• Most cases of stray voltage occur when there is either:

Table 2-2: Summary of questions and comments – July 17- August 22, 2012

	Comment	Correspondence	Response
			• Improper grounding of on-site equipment (in which case it is an issue with on-site wiring); or,
			• A change in current patterns on the distribution line, from generation or load that exposes a pre-existing condition (in which case it is an issue with the distribution utility, not with the generator or load).
			• It is important to understand that stray voltage is not a consequence of wind energy, but rather of any project that changes the use pattern of the existing system.
			• The turbines are therefore not the root of the problem, but like any change to the system, may expose faults in that system. All types of generation (electricity generation using wind turbines included) must fully comply with utility requirements to ensure that the electricity supplied is compliant with grid and electrical code standards.
			• Stray voltage problems require on-site inspection for grounding problems, or examination of power quality issues with the distribution utility.
			For additional information on the potential effects of stray voltage on livestock, see the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) website: www.omafra.gov.on.ca/english/livestock/dairy/facts/strayvol.htm
2	Potential effects on local views (visual effects)	Comment form at public meeting	Visualizations of the proposed turbines within the existing landscape were presented at the final public meetings. These visualizations show the relative size of the turbines in relation to local landscapes. Visual effects are ultimately dependent on the perception of residents and visitors to the presence of turbines.
	3 Health concerns related to wind turbines Comment form public meeting		• NextEra takes concerns about human health very seriously. Although much has been written about health effects associated with wind turbines, NextEra has found no credible, scientifically peer-reviewed study that demonstrates a causal link between wind turbines and negative health effects. On the contrary, the study "Wind Turbine Sound and Health Effects: An Expert Panel Review" had the following key conclusions:
3		erns Comment form at public meeting nes	• Sound from wind turbines does not pose a risk of hearing loss or any other adverse health effect in humans.
			• Sub-audible, low frequency sound and infrasound from wind turbines do not present a risk to human health.
			• Some people may be bothered by the presence of sound from wind turbines. Annoyance is not a pathological entity.

Comment	Correspondence	Response
		• A major cause of concern about wind turbine sound is its fluctuating nature. Some may find this sound annoying, a reaction that depends primarily on personal characteristics as opposed to the intensity of the sound level.
		• The full report can be found on the Canadian Wind Energy Association's (CanWEA) website:
		www.canwea.ca/pdf/talkwind/Wind_Turbine_Sound_and_ Health_Effects.pdf; and at
		www.NextEraEnergyCanada.com.
		• In its decision on the Kent Breeze Wind project in Chatham-Kent, the Ontario Ministry of Environment stated:
		"The Chief Medical Officer of Health agreed to undertake a review of existing information and to consult with the Ontario Agency for Health Protection and Promotion and local medical officers of health on health effects related to wind turbines. The results of the review and consultation were published on May 20, 2010 and released in a report titled "The Potential Health Impacts of Wind Turbines". The review concluded that scientific evidence available to date does not demonstrate a direct causal link between wind turbine noise and adverse health effects. The sound level from wind turbines at common residential setbacks is not sufficient to cause hearing impairment or other direct health effects, and there is no scientific evidence to date that vibration from low frequency wind turbine noise causes adverse health effects, although some people may find it annoying.
		Regarding shadow flicker, a common concern is its possible relationship to epilepsy. The Chatham-Kent Board of Health reviewed potential impacts in their report dated June 2008 and stated that 'The frequency of wind turbines is well below the current known documented threshold for triggering epilepsy symptoms."
		• The American Epilepsy Foundation indicated that flashing lights most likely to trigger a seizure occur at frequencies between 5 to 30 Hz. Shadow flicker generated by wind turbines, however, has a frequency well below that level, and ranges from 0.5 to 1.25 Hz.
		• The Massachusetts Department of Environmental Protection convened an expert panel in collaboration with the Massachusetts Department of Public Health to investigate potential human health effects associated with proximity to wind turbines. The panel, composed of physicians and scientists, reviewed existing information within their areas of expertise and recently released a report



	Comment	Correspondence	Response
			entitled "Wind Turbine Health Impact Study: Report of Independent Expert Panel". Some of the key findings are summarized below:
			• "There is no evidence for a set of health effects from exposure to wind turbines that could be characterised as "Wind Turbine Syndrome"."
			• "Available evidence shows that the infrasound levels near wind turbines cannot impact the vestibular system" [i.e. the system responsible for balance].
			• "None of the limited epidemiological evidence reviewed suggests an association between noise from wind turbines and pain and stiffness, diabetes, high blood pressure, tinnitus, hearing impairment, cardiovascular disease, and headache/migraine."
			Lastly, NextEra will have a Complaint Resolution Process in place to address any concerns related to the Project, should they arise. This process outlines the steps to be taken to resolve the issue including: contacting the complainant within 24 hours of receiving the complaint to understand the issue and seek a resolution, notifying the MOE of the complaint and filing a Complaint Record, and finally, proposing a face-to-face meeting if the issue cannot be resolved through a phone call.
			Effects to wildlife are assessed in the Natural Heritage Assessment and Environmental Impact Study Report, which was submitted to and received sign-off from the Ministry of Natural Resources.
4	Potential effects on wildlife Comment form at public meeting	Comment form at	1 When properly sited, wind turbines present less of a danger to birds than other structures common to the environment, such as buildings or roads. The locations of turbines, as well as numerous other decisions associated with developing wind projects, are carefully considered to minimize any effects. As part of Ontario's REA process, NextEra is working with experts to assess the potential effects on local wildlife, including birds and bats.
		public meeting	2 As part of the facility siting and pre-construction activities, studies were completed to identify potential issues related to wildlife at the selected site. The work plans and results were reviewed by the MNR as part of the approval of the REA application.
		3 Biologists collect the following information on wildlife in relation to the Project through field studies and consultation with government agencies and other environmental organizations:	
			3.1 Extent of natural features within the Project area, with

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	Comment	Correspondence	Response
			a focus on Areas of Natural and Scientific Interest, wetlands, woodlands, and valleylands;
			3.2 Existing records of species in the area;
			3.3 Wildlife habitat and activity patterns for seasonal concentration areas, specialized wildlife habitats, habitats for species of conservation concern, and potential wildlife movement corridors;
			3.4 Potential effects, mitigation measures, and monitoring requirements for any significant natural feature or wildlife habitat within the Project area.
			4 In addition, biologists assess any nearby wetlands and determine permitting requirements relating to environmental protection. NextEra avoids or minimizes impacts to wetlands – which provides habitat for many species of birds – and other environmentally sensitive areas during Project siting and turbine layout.
			5 Through these efforts, biologists can identify the:
			5.1 Numbers and type of wildlife present in the area;
			5.2 Behaviour of wildlife while present in the area; and,
			5.3 Possible risk to birds/bats due to turbine collisions.
			6 If issues are identified during the evaluation phase, NextEra takes corrective action, such as:
			6.1 Moving proposed turbine locations to avoid significant wildlife habitats or to reduce potential collisions;
			6.2 Establishing setbacks between turbines and wetlands; and,
			7 NextEra has met all of the requirements for conducting baseline wildlife, bird and bat studies, as described in O. Reg. 359/09 and set out in guidelines prepared by the Ministry of Natural Resources.
5	Effect on the water table and farmers' wells that may dry up	Comment form at public meeting	The results of the geotechnical evaluation for the Project indicate that there is unlikely to be any impact to the water table.

	Comment	Correspondence	Response
6	Who is responsible to compensate landowners for broken tiles?	Comment form at public meeting	Any field drains that are impacted by turbine delivery or assembly will be replaced or repaired with supervision from the landowner.
7	Why are you still investigating alternative routes for the transmission route if this is the Final Public Meeting?	Comment form at public meeting	The Final Public Meeting was held for the final project layout and design for the wind farm and its transmission line. Any route changes to a transmission route would likely require additional consultation.
8	How have First Nations been consulted?	Comment from Public Meeting	First Nations have been consulted in accordance with the Draft Aboriginal Consultation Guide, Ontario Ministry of the Environment, 2011. The complete consultation report will be made available for public review once the REA application has been "deemed complete" by the MOE.
9	This area has high potential for archaeological finds, is it possible that landowners may have collected artifacts? How was archaeology assessed? How are archaeology resources protected?	Comment from Public Meeting	It is possible that landowners have collected artifacts. That is a common practice across Ontario and the archaeological assessment is designed to take this practice into account. Generally, even if artifacts have been collected from a site enough artifacts remain behind to be documented by an archaeologist at a later date. The entire turbine layout and any areas to be impacted by construction were surveyed archaeologically. In order to address concerns about the impact of the wind turbine infrastructure, standalone collector cable corridors or transmission line corridors; transmission line corridors, limited to municipal right-of-ways, were surveyed from the road edge to the edge of the right-of way; and all roads or roads with collector cables alongside were surveyed as 60 m wide corridors. All turbine pads with associated vehicle and crane turnarounds and equipment laydown areas were assessed as a 70 m radius centered on the turbine. Finally, all substation and laydown areas were assessed with 20 m buffers. All archaeological reports have been submitted and reviewed by the Ministry of Tourism, Culture and Sport to fulfill the archaeologists' license obligations and to satisfy requirements for the environmental permitting of the wind farm. All archaeological report, and following the 2011 <i>Standards and Guidelines for Consultant Archaeologists</i> , some sites were recommended for further archaeological assessment. This work is known to the



	Comment	Correspondence	Response
			Ministry of Tourism, Culture and Sport and will be conducted prior to construction. This work will also be reported upon by the archaeologist and then submitted to and reviewed by the Ministry of Tourism, Culture and Sport. All reports will be publically available in the Ontario Public Register of Archaeological Reports. Some sites might be avoided during construction by fencing off with a 10 m buffer around the site. An archaeological monitoring will be present to protect the avoided sites from any accidental construction impact. Archaeological resources will be either protected by documentation, excavation, or avoidance.
10	What happens if you find human remains?	Comment from Public Meeting	If any human remains were to be found, the Cemeteries Act and the Funeral, Burial and Cremation Services Act require that any person (be it an archaeologist or a member of the general public) discovering human remains must notify the police or coroner and the Registrar of Cemeteries at the Ontario Ministry of Consumer Services. Once a preliminary determination of the age of the human remains has been made, Aboriginal groups who might have an interest in the remains could be contacted. No further archaeological work will proceed on that property until the human remains have been appropriately handled in consultation with the police or coroner; the Registrar of Cemeteries; the archaeologist; the Ministry of Tourism, Culture and Sport; interested Aboriginal groups; and the client.
11	Have Tundra Swans been considered as part of the Natural Heritage Studies? Have you reviewed the material on the University of Western Ontario website?	Comment from Public Meeting	As part of the Natural Heritage Assessment process, the staging areas of waterfowl (including Tundra Swans) have been considered in detail. This has included site-specific habitat assessments compared to provincial standards for assessing suitable habitat and determining significant staging areas. Given the site-specific nature of the habitat assessments that have already been completed within the project area, the potential additional benefit of this high-level data has been considered but ultimately determined to provide little additional information than the site- specific assessments that have already been completed.

2.3 Consideration of Comments

Table 2-4 summarizes how the comments received from the public were considered in the Project design.

Issue Raised	Corresponding Comment(s)	Change Made to Project Design?	Rationale for No Change / Description of Change	Report Document(s) which Detail Change, if any	How Change will Address Issue
General concerns regarding wind farms	1-11	No	Changes not warranted based on comments submitted as they are general in nature and potential concerns had already been addressed through Project design and related mitigation measures. Response to comments received during the additional Final Public Meeting will be issued to members of the community via a Project Newsletter.	N/A	N/A

Table 2-3: Consideration of comments – Public

3 REFERENCES

- [1] Ontario Regulation 359/09, made under the Environmental Protection Act, Renewable Energy Approvals under Part 1.0 of the Act.
- [2] *Ontario Regulation 521/10*, made under the *Environmental Protection Act*, Renewable Energy Approvals under Part 1.0 of the Act.
- [3] Technical Guide to Renewable Energy Approvals, Ontario Ministry of the Environment, 2012.
- [4] Draft Aboriginal Consultation Guide, Ontario Ministry of the Environment, 2011.

APPENDIX A NOTICE OF ADDITIONAL FINAL PUBLIC MEETING



NOTICE OF FINAL PUBLIC MEETING To be held by Bornish Wind, LP regarding a

Proposal to Engage in a Renewable Energy Project

Project Name: Bornish Wind Energy Centre

Project Location: North Middlesex, Middlesex County, Ontario

Dated at the Municipality of North Middlesex, Middlesex County this the 25th of July, 2012

Bornish Wind, LP (a wholly owned subsidiary of NextEra Energy Canada) is planning to engage in a renewable energy project in respect of which the issuance of a renewable energy approval is required. The proposal to engage in the project and the project itself is subject to the provisions of the *Environmental Protection Act* (Act) Part V.0.1 and Ontario Regulation 359/09 (Regulation). This notice must be distributed in accordance with section 15 of the Regulation prior to an application being submitted and assessed for completeness by the Ministry of the Environment. The purpose of the meeting is to provide residents an opportunity to review and discuss the draft documentation related to the Project's Renewable Energy Approval.

Another public meeting will be held for the project on the following date:

DATE: August 15, 2012 TIME: 5:00 p.m. to 8:00 p.m. PLACE: Ailsa Craig Community Centre 155 Annie Ada Shipley Street, Ailsa Craig

Please note that the meeting will be in an Open House format allowing attendees to visit any time during the event.

Project Description: Pursuant to the Act and Regulation, the facility, in respect of which this project is to be engaged in, is a Class 4 Wind Facility. If approved, this facility would have a total maximum name plate capacity of 72.9-megawatts (MW). The Project Location is described in **Figure 1**.

Documents for Public Inspection:

The Draft Project Description Report titled "Project Description Report – Bornish Wind Energy Centre" describes the project as consisting of 45 GE 1.62 MW turbines (although the Renewable Energy Approval application will include 48 turbine locations), a pad mounted transformer at each turbine, transformer substations, underground electrical collection lines and an overhead transmission line, turbine access roads, an operations building, meteorological tower(s) and construction staging areas.

Bornish Wind, LP has prepared the following draft supporting documents in order to comply with the requirements of the Act and Regulation: Project Description Report; Construction Plan Report; Design and Operations Report; Decommissioning Plan Report; Wind Turbine Specifications Report; Natural Heritage Assessment Report; Water Assessment and Water Body Report; Stage 1 and 2 Archaeological Assessment Reports; Heritage Assessment Report; and Noise Study Report.

Written copies of these draft supporting documents have been available for public inspection since May 9, 2012 at www.NextEraEnergyCanada.com and at the North Middlesex Municipal Office and the Middlesex County office:

North Middlesex Municipal Office 229 Parkhill Main Street Parkhill, Ontario Middlesex County 399 Ridout Street North London, Ontario

Written copies will also be available at the public open house.

Comments received on or before <u>August 22, 2012</u> will be included in our Public Consultation report to the Ministry of the Environment. Should you wish to provide comments after this date, they can be forwarded directly to the Ministry of the Environment.

Project Contact and Information: To learn more about the project proposal, public meetings, or to communicate concerns please contact:

Derek Dudek, Community Relations Consultant NextEra Energy Canada, ULC 5500 North Service Road, Suite 205, Burlington, ON, L7L 6W6 Phone: 1-877-257-7330 Email: Bornish.Wind@NextEraEnergy.com

Figure 1: Proposed Project Location



APPENDIX B RELEVANT DOCUMENTATION – PUBLIC CONSULTATION

- Final Public Meeting –North Middlesex
 - o Panels
 - o Comment forms
- Field Notes Door to Door Consultation



NextEra Energy Canada welcomes you to tonight's event.

We are here to:

Provide information about NextEra Energy Canada

Describe the projects

Provide you with information on the Renewable Energy Approvals process



- Listen to your concerns and answer your questions
- A Present the proposed Wind Energy Centre layout
- A Receive your comments about the project and study results
- Make the draft REA reports and studies available to you



A Leader in Clean Energy

NextEra Energy Canada is an indirect, wholly-owned subsidiary of NextEra Energy Resources. NextEra Energy Resources, LLC is the largest generator of wind energy in North America.

NextEra Energy Canada

NextEra Energy Canada is a leading renewable energy developer in Canada focused on developing electricity derived from clean, renewable sources. Our Canadian operations are headquartered in Burlington, Ontario. We are the owner and operator of four wind energy projects and two solar energy projects in the following provinces:

- A Quebec: Mount Copper and Mount Miller Wind Energy Centres
- Nova Scotia: Pubnico Point Wind Energy Centre
- Alberta: Ghost Pine Wind Energy Centre
- A Ontario: Sombra and Moore Solar Energy Centres

NextEra Energy Canada is currently working toward approval of six wind energy centres in Ontario. We currently have two projects that received Renewable Energy Approval (REA).

NextEra Energy Resources

We are:

- The operator of 90 wind projects in 18 states and three provinces with nearly 9,000 wind turbines providing over 8,700 megawatts of generation
- The second largest global generator of renewable energy
- The largest generator of both wind and solar power in North America operating wind energy facilities for over 23 years

Did you know that NextEra Energy Resources...

- ▲ Began developing renewable energy projects in 1989?
- ▲ Has approximately 4,500 employees in North America?
- ▲ Generates approximately 95% of its electricity from clean or renewable sources?



Why is Southwestern Ontario considered a great choice for wind energy?

Wind developers favour Southwestern

Ontario for two main reasons:

- 1. Strong and consistent wind levels, particularly around the Great Lakes
- 2. Available and adjacent electricity transmission
 - Wind data has been collected in the Project Study Area since 2007 measuring wind speeds at heights of 30 metres (98 feet), 40 metres (131 feet), and 50 metres (164 feet)
 - Wind speeds are viable for commercial wind energy generation

The region is well served by existing and planned transmission lines (such as Hydro One's Bruce to Milton line) that have available capacity to receive the electricity generated by the project





Benefits of Wind Power

Environmental Compatibility

- Creates no air or water pollution
- Minimal greenhouse gas emissions
- Efficient and reliable



- Allows land to remain in agricultural use
- Does not use water in power generation
- Low environmental impact
- ▲ Free, renewable energy source

Local Economic Benefits

- Provides new employment opportunities
- Adds tax base to the local municipalities
- Supports the economy through purchases of regional goods and services
- ▲ 8-10 full time jobs
- ▲ 200-300 construction jobs
- Delivers landowner lease payments Community Vibrancy Funds to support local initiatives

Over the next 20 years, we estimate the project will contribute:

- ▲ \$121million in corporate income tax ▲ \$8 million in property tax revenue to North Middlesex and Middlesex County
- ▲ \$15 million in landowner payments

Price Stability

Decentralizes power production

- ▲ No fuel cost
- Helps stabilize the cost of power
- Electricity produced domestically



Ontario's Renewable Energy Approval Process

- The Renewable Energy Approval (REA) process, outlined in Ontario Regulation 359/09, is a requirement for large wind power projects under Ontario's Green Energy Act
- NextEra Energy Canada will submit a Renewable Energy Approval application to the Ontario Ministry of the Environment (MOE) for each project
- The MOE will assess the application for completeness and then undertake a technical review to determine whether to issue an approval
- Other agencies, including the Ministry of Natural Resources (MNR), the Ministry of Transportation (MTO), the Ministry of Tourism, Culture and Sport (MTCS) and local conservation authorities and municipalities will provide input

Reports included in application:

- Project Description Report to provide an overview of the project and a summary of all the required REA reports
- Archaeology and Cultural Heritage Assessment Reports to identify potential effects on archaeological or cultural heritage resources
- Natural Heritage Assessment Report to identify potential effects on birds, bats, other wildlife, woodlands, wetlands, areas of natural and scientific interest, etc.
- Noise Study Report to ensure the project is in compliance with noise regulations
- Water Body and Water Assessment Report to identify potential effects on streams, seepage areas and lakes
- Construction Plan, Design and Operation, Decommissioning Reports to describe these activities and identify any potential effects resulting from the various project phases
- Consultation Report to demonstrate how NextEra Energy Canada engaged local and Aboriginal governments, as well as the public, during the project
- Wind Turbine Specifications to describe the turbine technology selected for the project



Renewable Energy in Ontario

The Green Energy and Green Economy Act

 Developed to stimulate the "green" economy in Ontario and create up to 50,000 jobs

Key Components:



- Provincial obligation to purchase green energy
- Priority grid access for renewable energy projects
- Long-term fixed-price power contracts
- Coordinated regulatory and approvals process

Provincial Green Energy Initiatives and the Feed-in-Tariff Program:

• Feed-in-Tariff (FIT) Program, launched by the Ontario Power Authority, is North America's first comprehensive guaranteed pricing structure for renewable electricity production

• The FIT Program offers stable prices and long-term contracts to green energy projects that encourage investment in renewable energy and economic development across the Province

- NextEra Energy Canada had six projects that were awarded FIT contracts on July 4, 2011:
 - Adelaide Wind Energy Centre
 - Bluewater Wind Energy Centre
 - Bornish Wind Energy Centre
 - East Durham Wind Energy Centre
 - Goshen Wind Energy Centre
 - Jericho Wind Energy Centre

We have two additional projects (Conestogo and Summerhaven Wind Energy Centres) which have been awarded a FIT contract by the Ontario Power Authority and have received the Renewable Energy Approval.



Renewable Energy Approval Process

Conduct Preliminary Desktop Analysis









The Bornish Project

- The proposed Bornish Wind Energy Centre is planned to be located in the Municipality of North Middlesex, Middlesex County, Ontario
- Project components will be installed on privately-owned agricultural lots
- The project will have a maximum name plate capacity of 72.9 megawatts of electricity which will generate enough energy to power approximately 21,870 homes

Project infrastructure will include:

- ▲ 45, 1.6 megawatt GE turbines, though 48 turbine locations will be permitted
- Laydown and storage areas (including temporary staging areas) for construction equipment and supplies
- A substation located on site and a 115 kV transmission line to connect to the Hydro One transmission system
- The proposed transmission line will travel east along Elginfield and Nairn Roads, connecting to the Hydro One transmission system
- Underground electrical collection lines (located on private lands and municipal right of ways) to connect the turbines to the transformer substation
- Turbine access for road construction and maintenance
- An operations and maintenance building





Your Concerns... Our Response

Q: What is stray voltage?

A: Stray voltage results from the normal delivery and/or use of electricity - usually smaller than 10 volts - that may be present between two conductive surfaces. Stray voltage is related to power system faults and is generally not considered hazardous.

Q: Do wind turbines cause stray voltage?

A: No. Wind energy has been incorrectly associated with stray voltage because wind turbines are often installed in agricultural areas. Stray voltage is not a consequence of wind energy but rather changes in the use pattern of the existing electrical system.

Wind turbines are not the root of the problem, but the addition of this or any other generation source may expose faults in that system. All types of generation, including wind generation, must fully comply with utility requirements to ensure that the electricity they supply is compliant with grid standards.

Stray voltage problems require on-site inspection to avoid grounding problems and to examine power quality issues with the distribution utility.

Q: What is being done to minimize stray voltage across these transmission lines?

A: NextEra Energy Canada will adopt industry best practices at all times to minimize the risk of stray voltage and ensure our projects are built and maintained within acceptable levels as prescribed by the local safety code.

While NextEra Energy Canada does not intend to connect Wind Energy Centres to the local distribution system that serves barns and houses in the area, we are aware that transmission lines in close proximity to local distribution lines can induce current on the distribution lines if not designed properly. To address this, we are already working closely with Hydro One to minimize the impact on local distribution customers.

Q: What effects will there be on wildlife? (e.g. birds, bats etc)

A: When properly sited, wind turbines present less of a danger to wildlife than other structures such as buildings and roads. Turbines will be located as carefully as possible to minimize any effects on wildlife. NextEra Energy Canada will work closely with the relevant experts to assess any potential effects on wildlife, including birds and bats.



Your Concerns... Our Response

Q: Why not use an open concept meeting approach where all attending can hear the presentation as well as the questions and answers?

A: It is our experience that meetings structured in an Open House format are the most effective way to communicate a large amount of information to members of the community. This provides local stakeholders with an opportunity to speak face-to-face, with project staff and to ask questions that are within their areas of expertise. In addition, we understand that not all members of the public are comfortable asking questions in front of a large audience; as such, we have found that one-on-one discussions are an effective tool to encourage active participation.

There are many subject matter experts involved in the planning, design, engineering, construction, permitting and development of a wind energy project. Should one project representative be unable to address a specific question, the can draw on the expertise of another representative at the meeting. It is NextEra's priority to provide accurate information to all attendees at the meeting.

Q: What risks are there to my health from turbines?

A: There is little credible evidence to support any links between wind turbines and adverse effects on

human health either related to noise or shadow flicker. NextEra will have a Complaint Resolution Process in place to address any concerns related to the project that may arise.

Q: I am concerned about the effect on the value of my property.

A: Based on available research, we are not aware of any credible evidence to indicate a decline in property values from the siting of a wind farm.

Q: I have concerns about the impact on the landscape from the turbines.

A: The visual impact of any development is highly subjective. Through our consultation we will present visualizations of our proposed development for public comment and feedback that may result in changes that would make the development more visually appealing.

For a complete list of comments and questions from the public, please visit the Frequently Asked Questions sections on our website. We will also publish concerns and inquiries in the public consultation report, which will be filed with the REA documents and posted on our website.





Aboriginal Consultation

- Canada's Constitution Act, 1982, recognizes the rights of Aboriginal peoples (First Nation, Inuit and Métis)
- Ontario Regulation 359/09 has specific requirements for Aboriginal consultation
- Ontario Power Authority's Feed in Tariff program reinforces the importance of Aboriginal consultation
- Project proponents are delegated the "procedural aspects" of Aboriginal consultation
- Aboriginal consultation may include environmental, archaeological, cultural and spiritual issues
- NextEra Energy Canada is working closely with Aboriginal communities and leadership as required by law and good practice to:
 - Offer meaningful information about its projects
 - Seek information that helps ensure good planning to avoid or minimize impacts
 - ▲ Openly discuss issues, interests and concerns
 - Seek workable and mutually

acceptable solutions Foster relationships of mutual respect



Turbine Siting Process

Developing a Site Plan

The following steps outline the process of developing a project site plan:

- 1. Identify a sufficient wind resource and study the wind characteristic for several consecutive years
- 2. Work with local landowners to option land for wind turbines and ancillary facilities (i.e. collection lines and access roads)
- 3. Identify technical and environmental limitations based on input from project engineers, ecologists and aquatic biologists, cultural experts, local landowners, Aboriginal groups, and government agencies
- 4. Identify locations to site project infrastructure by balancing these technical and environmental limitations while adhering to the setback distances prescribed by the Province (i.e., Ontario Regulation 359/09) as identified in **Table 1** below. Project components can be sited within the setbacks for some environmental features provided

that an Environmental Impact Study is completed and mitigation measures identified.

Table 1. Turbine Siting Process Constraint Categories

Category	Distance Considerations*		
Natural Heritage Features	 Area of Natural and Scientific Interest (ANSI) earth Science: 50m ANSI Life Science: 120m Significant wildlife Habitat: 120m Significant Woodlands and Valleylands: 120m Provincially Significant Wetland 		
Aquatic Features	 Streams and Waterbodies: 30m 		
Local Infrastructure	 Petroleum Resource Facilities: 75 Road Right-of-way: 60m Railway right-of-way: 60m 		
Socio-Economic	 Property Line: 60m Residential and other uses sensitive to noise: 550m 		

Note that other requirements may be applicable to the projects (e.g. aerodromes, pipelines, and Ministry of Transportation setbacks, etc.)

