

Bornish WIND ENERGY CENTRE NEWS

VOL. 2



WELCOME

In this newsletter, you will find the latest update on the proposed Bornish Wind Energy Centre. Since our last newsletter, we have the following important updates to share:

- On June 19, we hosted a 'Telephone Q&A' where nearly 150 local residents actively participated and had the opportunity to ask questions about the project. Thank you to those who attended.
- On July 10 and August 15, 2012, we hosted public meetings at the Ailsa Craig Community Centre to share the project description, and the construction and operations plans with the local community. These final open houses gave community members a chance to review the Renewable Energy Approval (REA) report findings, review the final proposed turbine layout and provide comments that will be included in the Public Consultation Report. Approximately 90 people attended to learn more about the project and have their questions answered by our team of experts. Within this newsletter, we have answered some of the most frequently asked questions from the public meetings and Telephone Q&A.
- In July 2012, we submitted our application to the Ministry of the Environment (MOE) for a Renewable Energy Approval (REA), following comprehensive studies of the local area. Submission of the public consultation report was delayed to ensure we include comments from the August 15 public meeting. Since then, the Bornish REA application has been deemed complete by the MOE and technical review of the application has begun. The final REA reports can be found on our website. We will continue to be engaged in public consultation with the Middlesex community.

Should you have any questions, comments or suggestions, we encourage you to contact us directly at the number or email address provided below. **Your voice counts and your opinion matters.** We look forward to continued engagement with the community as we work toward developing emissions-free electricity in Ontario.

Kind regards,

Adam Camp
Project Director
Bornish Wind Energy Centre

CONTACT US

For more information or to contact us directly:

- CALL OUR TOLL-FREE NUMBER:
1.877.257.7330
- EMAIL:
Bornish.Wind@NextEraEnergy.com
- VISIT OUR WEBSITE:
www.NextEraEnergyCanada.com/projects/bornish.shtml
- WRITE TO:
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ABOUT NEXTERA ENERGY CANADA

- Bornish Wind, Inc. is the owner of the Bornish Wind Energy Centre and a subsidiary of NextEra Energy Canada, ULC.
- NextEra Energy Canada, ULC is a subsidiary of NextEra Energy Resources, LLC, the largest generator of wind energy in North America.
- NextEra Energy Resources operates 100 wind projects in 4 provinces and 19 states with over 10,000 megawatts of generation.
- NextEra Energy Resources is focused on developing clean, renewable energy and approximately 95 per cent of our electricity comes from clean or renewable sources.



We value your privacy. Information will be collected and used in accordance with the Freedom of Information and Protection of Privacy Act, and will be maintained on file for use during the planning process for the proposed wind centres.

ABOUT THE BORNISH WIND ENERGY CENTRE

- The Bornish Wind Energy Centre will be located on privately-owned land in North Middlesex, Ontario.
- The transmission line for the Bornish Wind Energy Centre will converge with transmission lines for the nearby Adelaide and Jericho Wind Energy Centres at a switching station located in the Bornish Project Area in North Middlesex. From this switching station a transmission line will carry the electricity from the three projects eastward, approximately 12 kilometers, to a Hydro One transmission line.
- The Bornish Wind Energy Centre will generate up to 73.5-megawatts using up to 45 wind turbines. At maximum capacity, this project is expected to produce enough energy to power approximately 18,375 homes in Ontario.
- Local economic benefits of the project include employment opportunities, added tax base for municipalities and landowner lease payments. The Bornish Wind Energy Centre will create an estimated 150 construction jobs and 6-8 full time local operations jobs.

PROJECT UPDATE

The Renewable Energy Approval (REA) application for the proposed Bornish Wind Energy Centre has been submitted to, and deemed complete by, the Ministry of the Environment (MOE). The application is now under technical review which will take place until 2013 and NextEra Energy Canada is committed to continued engagement with the local community throughout this process. The reports can be found on our website at: www.nexteraenergycanada.com/projects/bornish.shtml.

PUBLIC MEETING AND TELEPHONE Q&A

On the evening of Tuesday, June 19, NextEra Energy Canada conducted a live Telephone Q&A regarding the Bornish Wind Energy Centre.

With the use of a professional third party moderator, a Telephone Q&A involves proactively contacting community members by phone to inform, educate and invite participants to engage in debate with a panel of company, project and renewable energy experts. Participants are invited to ask questions and can listen to questions that other local community members ask, and the answers given by the panel.

The panel included the Bornish Wind Energy Project Director, NextEra Energy Canada's engineering manager, regional operations manager, environmental services manager, a terrestrial and wetlands biologist and an environmental health issues expert.

Prior to the session, outbound calls were placed to every available phone number in the project area and a brief pre-recorded message notified people of the upcoming live telephone meeting, informed them how to participate and left them a direct phone number to NextEra Energy Canada to call prior to the meeting if they had any questions.



A number of community members participated in the call and asked questions, which were centered around turbine location for the Bornish project, impact on property values and impact on health. We have attempted to answer these questions in the FAQ section of this newsletter.

THE FEED-IN TARIFF (FIT) PROGRAM

The Feed-in Tariff (FIT) program was created by the Ontario Power Authority (OPA) in an effort to encourage the development of renewable energy projects, such as wind and solar energy centres, in the province. The program was designed to promote investment in renewable energy projects thereby helping to build a reliable and sustainable energy system in Ontario. In addition, the FIT program supports the following objectives:

- Helps Ontario phase out coal-fired electricity generation by 2014 – the largest climate change initiative in Canada
- Boosts economic activity and the development of renewable energy technologies
- Creates new green industries and jobs

The FIT program has been in place for two years and, in that time, has undergone review

by both the OPA and residents of Ontario to identify necessary changes and ensure it is sustainable in the long-term. The OPA recently announced changes to the program, some of which are listed below. All of the changes are designed to:

- Continue Ontario's commitment to clean energy
- Streamline processes and create jobs
- Encourage greater community and Aboriginal participation
- Improve municipal engagement
- Reduce price to reflect lower costs
- Grow Ontario's clean energy economy

It is important to note that NextEra Energy Canada projects were awarded FIT contracts prior to the recent changes, and are subject to the original program requirements.

KEY CHANGES TO THE FIT PROGRAM INCLUDE:

- Submission of applications only during an application window, and no longer on an ongoing basis
- Each application to be assigned points and prioritized based on applicant type, municipal support, Aboriginal support, project readiness and electricity system benefit
- Ten per cent of remaining capacity to be reserved for projects with significant participation from local or Aboriginal communities.
- Prices to be reduced by approximately 20 per cent for solar projects and 15 per cent for wind projects

For more information on the FIT program, please visit fit.powerauthority.on.ca.

FREQUENTLY ASKED QUESTIONS

Q: ARE OUR HIGH HYDRO COSTS DUE TO RENEWABLE ENERGY?

A: The cost of wind power generation is competitive with that of many other newly-installed power sources. Once turbines are installed, the cost of generating wind power will remain steady for decades because the cost of the fuel – wind – is free. In Ontario, energy that is generated by wind power is added to the provincial grid so the cost to consumers is the same as any other power-generating source.

It is true that electricity prices have risen steadily across Ontario over time and this has happened for a number of reasons:

- Ontario is closing its fleet of dirty, coal-fired generation by 2014, and replacing it with cleaner, greener sources. There is a cost associated with replacing coal, which has not historically been priced to capture the broader negative externalities associated with electricity production.
- As mandated by the government, there is a pressing need to update and modernize Ontario's infrastructure, such as its nuclear plants and transmission lines. Much of Ontario's transmission system was built in the 1950s and 1960s, with a useful life of 40 years. As this happens, higher charges to end-users are applied.
- Historically, the cost of generating and delivering electricity to consumers has been heavily subsidized within crown corporations. The government agencies in charge of setting fees have stated they are in the process of adjusting the fee structure to more accurately reflect the true cost of energy production.

Q: WILL THIS PROJECT AFFECT THE PROPERTY VALUES OF OUR HOMES?

A: Multiple studies¹ have found that property values of homes are not impacted by the existence of a wind facility in the area. According to the 2010 study *'Effect on Real Estate Values in the Municipality of Chatham-Kent'*, Ontario:

"In the study area, where wind farms were clearly visible, there was no empirical evidence to indicate that rural residential properties realized lower sale prices than similar residential properties within the same area that were outside of the view-shed (the area in which the turbines can be seen) of a wind turbine. No statistical inference to demonstrate that wind farms negatively affect rural residential market values in Chatham-Kent was apparent in this analysis."

Q: WHAT IMPACT DO WIND TURBINES HAVE ON OUR HEALTH?

A: NextEra Energy Canada takes concerns about human health very seriously. Although much has been written about health effects associated with wind turbines, we have found no credible, scientifically peer-reviewed study that demonstrates a link between wind turbines and negative health effects.

In May 2010, the Chief Medical Officer of Health of Ontario conducted a report titled *"The Potential Health Impacts of Wind Turbines"*, which states²:

"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."

In *"Health effects and wind turbines: A review of the literature"*, Canadian based Loren D. Knopper and Christopher Ollson state:

"To date, no peer reviewed articles demonstrate a direct causal link between people living in proximity to modern wind turbines, the noise they emit and resulting physiological health effects."³

Canadian Wind Energy Association's *"Wind Turbine Sound and Health Effects: An Expert Panel Review"* states:

- 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 annoyed at the presence of sound from wind turbines. Annoyance is not a pathological entity; and
- 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.⁴

Q: HOW LOUD ARE WIND TURBINES?

A: With the evolution of modern wind turbine technology, the mechanical noise from the turbine is almost undetectable. Turbines only run when the wind is blowing and the sound of the wind masks most of the noise.

Furthermore, wind projects in Ontario are under strict sound guidelines, as prescribed by the Ministry of the Environment. For residences in the area, the Bornish project will be quieter than many common sounds – such as a quiet room. If concerns regarding sound levels arise, we commit to investigating and, if necessary, remedying this situation as soon as possible.

Q: DO WIND TURBINES CAUSE SHADOW FLICKER?

A: When the sun is in a particular position behind a turbine, and there is no cloud cover, rotating wind turbine blades may cast shadows in the windows of neighboring properties creating what is known as a 'flickering' effect. Ontario's 550m minimum setback from non-participating homes helps minimize this effect, but it may not completely remove it. This phenomenon can be very easily predicted and, if necessary, mitigated by planting trees or installing awnings in the line of sight.

Fundamentally, shadow flicker is an aesthetic rather than a safety issue, but we recognize that it could be disruptive. NextEra Energy Canada will have a construction and operations communication program in place to address any concerns related to the projects, should they arise.

¹ For example, see: Ernest Orlando Lawrence and Berkeley National Laboratory - *The Impact of Wind Power Projects on Residential Property Values in the United States: A Multi-Site Hedonic Analysis* (Dec 2009) and CanWEA - *Wind Energy Study - Effect on Real Estate Values in the Municipality of Chatham-Kent, Ontario* (Feb 2010)

² The report can be found at: http://www.health.gov.on.ca/en/public/publications/ministry_reports/wind_turbine/wind_turbine.pdf

³ The report can be found at: <http://www.ehjournal.net/content/10/1/78>

⁴ The report can be found at: http://www.canwea.ca/pdf/talkwind/Wind_Turbine_Sound_and_Health_Effects.pdf

NEXTERA ENERGY CANADA IN THE COMMUNITY

NextEra Energy Canada is committed to working with, and getting to know, our neighbours. In June, we had the opportunity to sponsor and meet many of you at the Gord Sprang Memorial Golf Tournament and the Scatcherd Charity Golf Tournament. In addition,

NextEra Energy Canada has proudly donated a solar panel to The Search Foundation, an organization committed to promoting and supporting positive mental health in Strathroy, Ontario. We look forward to continued engagement with the community.



Janet Baltessen, Vicky Stevens, Derek Dudek and Ben Greenhouse

SELECTING A WIND FARM SITE

Selecting a site for a wind farm involves many steps. The ultimate objectives of choosing a site are to make certain there is minimal impact to the environment and community and – only when this is ensured – identify areas with the best potential to generate electricity from wind.

The team responsible for selecting a site considers a number of factors. Each factor is critical in the decision making process and can be broadly separated into two categories:

1. What features are required to meet the needs of a wind energy site (logistical and regulatory)

2. What features must be avoided to meet the needs of a wind energy site (logistical and regulatory)

FEATURES REQUIRED

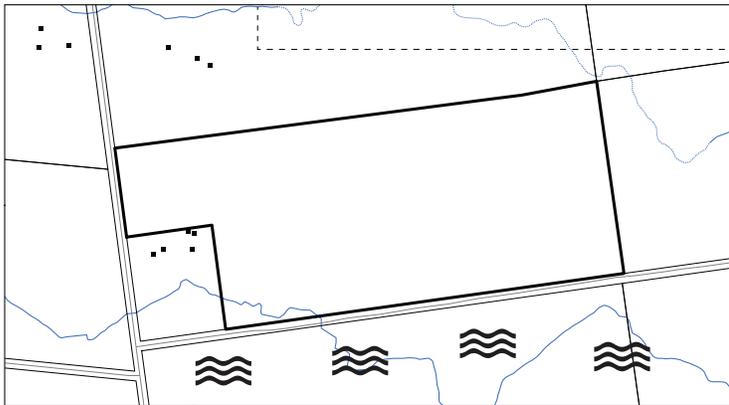
- Land situated near a consistent wind resource (steady flow of wind)
- Access to, and availability on, high voltage transmission lines (to transmit wind energy from the turbine to the power grid)
- Land owners willing to participate in the project

FEATURES THAT MUST BE AVOIDED

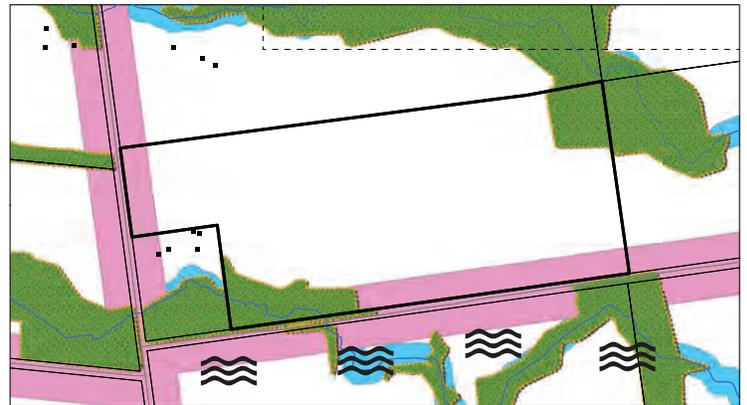
- Natural features such as wooded areas, wetlands, wildlife habitat
- Aquatic features such as streams and water bodies
- Infrastructure such as roads, railways, property lines, and houses that do not want to participate in the wind project

The image below shows how different factors – including features required and features to be avoided – each contribute to how a site is selected.

STEP 1: Identify site with all required features



STEP 2: Identify biological, aquatic and local infrastructure constraints



STEP 3: Identify residences and property lines. Conduct community consultation and then site wind farm in remaining space



LEGEND

Required site features

- Close to wind source
- Access to transmission lines
- Available land/ participating landowners

Features to be avoided

- Biological constraints
- Aquatic constraints
- Local infrastructure constraints
- Land (residence/ property line) constraints

Final wind farm site

- Turbine collection line
- Wind turbine

NextEra Energy Canada is committed to meeting or exceeding all of the regulatory requirements and working with the community to ensure we select the most appropriate sites for generating wind energy.