

# NextEra Energy Canada Adelaide Wind Energy Centre

Community Liaison Committee (CLC): Meeting #3

December 3rd, 2014 6:30 p.m. to 8:30 p.m.

Gemini SportsPlex - Westcast Room  
667 Adair Blvd.  
Strathroy, ON

**NOTE: This meeting package was compiled by the CLC Coordinators and Facilitators (AECOM) and as such may be subject to clarification or correction by NextEra Energy Canada and its technical staff/specialists. The CLC members will be notified of any revisions to the meeting package, and the final package will be posted and available for public review on NextEra Energy Canada's website.**



# Agenda

1. Introductions
2. Recap of CLC Meeting # 2
  - Purpose of the CLC
  - Construction Overview and Update
  - Public Attendance and Depositions
  - Minutes (Parking Lot Items)
3. Activities and Questions/Comments Raised Since the Second CLC Meeting
4. Update on Construction and Installation
5. Operations and Maintenance - Introduction of Operations Team
6. Preliminary Discussion of Monitoring and Mitigation Measures (to be further discussed at CLC Meeting No. 4)
7. Depositions, if any requests received
8. Tentative Items for Discussion at Future CLC Meetings
9. Plus/Delta

# Introductions

## CLC Members:

- Fallon Burch
- Dean Jacobs
- Kurtis Smith
- Mac Parker
- Donna Hornblower
- Carolyn Cornelissen
- Ron Peters
- Shirley Miller

## CLC Coordinators and Facilitators (AECOM):

- Avril Fiskien
- Adam Wright

## NextEra Energy Canada:

- Michael Lange, Project Manager, Development
- Brian Duncan, Business Management
- Travis Nels, Business Management
- Doug McIntosh, Regional Operations Manager
- Peter Miller, Operations Manager
- Charlotte Moore, Terrestrial & Wetland Biologist

- *Josie Bird, Communications*
- *Derek Dudek, Municipal/Community Relations*
- *Craig Scott*

# Recap: CLC Meeting #2

## Purpose of the CLC:

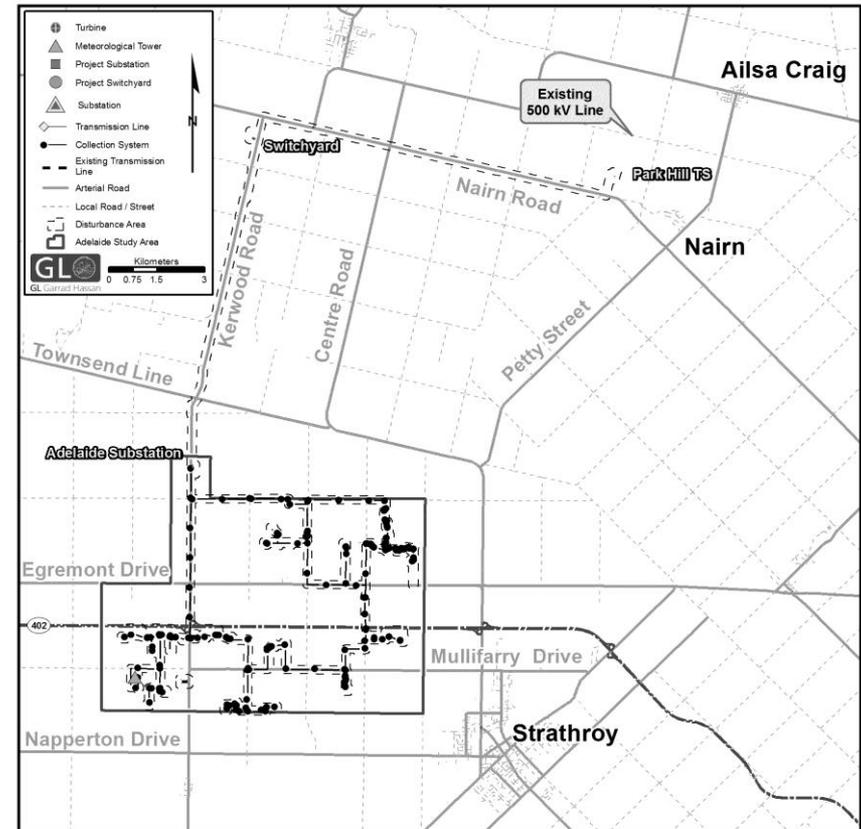
- A forum for two-way communication between NextEra Energy Canada and the public
- An opportunity to provide additional information and updates, and to respond to questions or concerns related to:
  - Construction and installation
  - Use and operation
  - Maintenance
  - Retirement of the Facility

## Project Overview:

- Class 4 Wind Facility
- Located in Municipality of North Middlesex, Middlesex County
- 37 turbines, w/ 80 metre towers and 50.5 metre blades
- A generating capacity of 60 MWs

## Public Attendance and Depositions:

- Local residents in attendance.
- No depositions.



# Recap: CLC Meeting #2

## Meeting Summary for our 2nd CLC Meeting:

- Draft minutes were prepared by AECOM and circulated to the CLC on June 11, 2014
- Members were asked to advise AECOM of any errors, omissions or changes by June 25, 2014
- All recommended comments/changes were incorporated and the minutes were posted on NextEra's publically accessible website on **June 27, 2014**
- CLC members were also emailed the final minutes on **June 25, 2014**

**Opportunity for Improvement:** We'd like to understand your expectation for the meeting summary. Are you receiving information that's easily shared with local community members?

# Recap: CLC Meeting #2 – Local Labour

## Construction Stats

- General Contractor is Borea Construction Canada
- **42 southwestern Ontario Companies** used (subcontractors and suppliers) on the Adelaide project.
- There is at least **\$40M** in contracts with subcontractors and suppliers in the southwestern Ontario region.
- Peak volume of individuals on site including subcontractors was around 150.
- Indirect economic benefits have not been measured, but local hotels, restaurants, home improvement stores, gas stations, machine shops, pubs and grocery stores have seen an increase in business since the start of the project.

## Projected Economic Impact

Construction Jobs:	150 at peak
Full Time Operations Jobs:	6
Capital Expenditures:	\$180 Million
Corporate Income Tax:	\$ 90 Million*
Property Taxes:	\$ 8 Million*
Landowner Payments:	\$ 13 Million*

\*Estimated over first 20 years of the project.

# Activities and Questions/Comments Raised Since CLC #2

- **Map which outlines the project in relation to the meeting. Context for the wider local area with other wind farms (Bornish and Suncor and WBD).**
- **Discuss Species at Risk monitoring in the project area, for next meeting.**
  - Has been included as an Agenda Item

# Status of Post-Construction Activities

## 1) Construction Clean up, Modifications and Road Repairs: July 2014 onward

- Waste and debris generated during construction activities to be collected and disposed of at an approved facility.
- All equipment and vehicles will be removed from the construction area.
- Reasonable efforts made to minimize waste generated and to recycle materials, including returning packaging material to suppliers for reuse/recycling.

## 2) Reclamation: (August to Spring 2015)

- Stripped soil will be replaced and re-contoured in the construction areas and disturbed areas will be reseeded during appropriate conditions for germination (as seasonality allows).

# Update on Project Commissioning and Operations

## Wind Turbine Commissioning: August 22, 2014

### Requires Collection System, Substation, and Turbines to Start

- Turbine commissioning took place in sequential order prior to the planned Commercial Operation of the Project.
- Portable generators were used to provide backfeed power for commissioning prior to being connected to the power grid.
- Commissioning included testing and inspection of electrical, mechanical, and communications operability.
- A detailed set of operating instructions were followed in order to connect into the electrical grid.



# Operations

- The operation phase will be approximately 25 years and the operations building will require full time staff (i.e., site supervisor and wind technicians).
- Turbines will require scheduled maintenance (i.e., oil change, gearbox cleaning and lubrication, replacement of worn parts). Routine preventative maintenance activities will be scheduled as required, in accordance with manufacturer requirements.
- Spill prevention best practices utilized during the Construction Phase will also be implemented during operational maintenance.
- If unscheduled maintenance of a turbine is required (i.e., component failure), then the turbine will be taken out of service until the repair is complete. Larger trucks and cranes may be required periodically for larger repairs, but this is expected to occur infrequently.
- To monitor subsystems within each turbine and the local wind conditions, a comprehensive control system is installed and networked to the local operator and to NextEra's central operations centre (staff on-site 24/7). The operations building will be notified if an event occurs outside a turbine's normal operating range, and the turbine will be shut down. Turbines can be controlled remotely from the central operations centre.
- Operation decisions based on meteorological data include turbine shut down under icy or extreme weather, and cut-in and cut-out wind speed.

# Operations

- **System Maintenance:**

- GE 1.62 MW wind turbines are automated and have few maintenance requirements.
- Initial maintenance of the turbines occur approximately 500 hours after initial commissioning and routine preventative maintenance activities are scheduled as required.
- Maintenance activities include changing of oil and gas filters, cleaning of gear boxes, replacement of worn parts and on-going inspections.
- All maintenance activities adhere to the same waste disposal and spill prevention industry best practices undertaken during construction.

- **Unplanned Turbine Maintenance:**

- Modern turbines are very reliable and designed to operate for approximately 25 years.
- Minor component failure may occur (i.e. electronic cards, switches, fans or sensors) and can take a turbine out of service until the faulty component is replaced.
- Replacement of a major component (i.e. gearbox or rotor) is atypical. NextEra would work with the County and the landowner to coordinate the delivery of any large equipment and repairs (if required).

# Operations – Complaint Resolution:

- NextEra acknowledges that some members of the community may have concerns regarding construction activities and long-term wind farm operations.
- To resolve disputes in a collaborative manner, NextEra follows its complaints resolution process.
- Should any complaints arise throughout the course of the construction, operation and decommissioning phases, a NextEra representative will contact the complainant to understand and seek a resolution.
- NextEra will **notify the local MOE** (Ministry of Environment) **district office** of the complaint **within 2 business days** of receipt of the complaint (**1 business day** if the complaint is related to **Ground Water**).
- The MOE notification will include:
  - Description of the nature of the complaint;
  - Wind direction at the time of the incident related to the complaint;
  - Time and date of the incident related to the complaint; and
  - A description of the measures taken to address the cause of the incident and to prevent a similar occurrence in the future

## Operations – Complaint Resolution, cont'd:

- NextEra will provide the local MOE district office with a written records of the complaint **within 8 business days** of the complaint.
- As soon as possible, **no later than three (3) days** call complainant to follow up.
- Prepare letter to respond to customer/citizen and mail **within 5 days of receiving complaint**.
- Information requests and complaints about the local operations and maintenance can be addressed to:

**NextEra Energy Canada, ULC**

**390 Bay Street, Suite 1720**

**Toronto, ON M5H 2Y2**

**Toll Free Phone: 1-877-463-4963**

**Main Office Line: 416-364-9714**

**Email: [adelaide.wind@nexteraenergy.com](mailto:adelaide.wind@nexteraenergy.com)**

**Website: [www.NextEraEnergyCanada.com](http://www.NextEraEnergyCanada.com)**

# Monitoring and Mitigation Measures

- **Environmental Effects Monitoring Plan:**

- In accordance with the requirements of Ontario Regulation (O.Reg.) 359/09, the Environmental Effects Monitoring Plan addresses various elements including, but not limited to, heritage and archaeological resources, natural heritage features and noise.

- **Noise**

- The Provincial Environmental Protection Act (EPA) requires that noise emissions for any new projects must not have any adverse effects on the natural environment and not exceed 40dBA when wind speeds are of 6 metres/second and below.
- NOTE: the allowable noise levels increase during higher wind speeds.
- Prior to construction, a Renewable Energy Approval (REA) was obtained with measures to be adhered to, i.e., noise modeling by independent consultants.
- Noise emissions will not likely change unless there is damage to the equipment (immediately recognized by the computer monitoring system and addressed by the operations team).
- Acoustic Emission and Immission testing will be conducted following COD. Results are then reported to the MOE.

# Monitoring and Mitigation Measures

- **Species-At-Risk (SAR) Monitoring**

- Species at Risk mortality monitoring occurred during the summer of 2014
- Monitoring was conducted in accordance with MNR requirements
- All 37 turbines were searched monthly
- No Species at Risk mortalities were documented during 2014
- Annual report will be prepared in winter 2014
- Species at Risk Monitoring continues for the life of the project
- 2015 Species at Risk monitoring will begin May 1

- **Bird and Bat Post-Construction Monitoring**

- Monitoring will be conducted in accordance with requirements of the REA and MNR Guidelines
- Monitoring will begin May 1, 2015
- Turbine searches will occur twice weekly from May 1st through October 31st, and raptor surveys will continue weekly from November 1st through November 30th.
- Correction factors are applied in order to calculate overall estimated mortality rates across the project
- Annual report provided to MNR by March 31 following each year of monitoring
- 3 years of monitoring are required

# Monitoring and Mitigation Measures

- **Natural Heritage Monitoring**

- Post construction monitoring of certain wildlife habitats is required by the REA
- Bald eagle nesting, foraging and perching habitat
- Bat maternity colony habitat
- Habitat monitoring will begin in 2015, in accordance with the requirements of the REA
- 3 Years of habitat monitoring is required
- Annual reports will be submitted to MNR by December 31 of each year of monitoring



# Tentative Items for Discussion at Future CLC Meetings

## CLC Meeting #4

- Update on Operations and Maintenance
- Monitoring & Mitigation Measures
- Post-Construction Activities (e.g., reclamation or required repairs)
- Provisions for Decommissioning
- Other



Timeframe for next meeting, and possible dates?

- Archaeological Reports
- Community Liaison Committee Materials
- Community Newsletter
- Construction Plan Report
- Consultation Reports, Information Packages and Other Communication
- Decommissioning Plan Report
- Design and Operations Report
- Heritage Assessment Report
- Noise Study Report
- Natural Heritage Report
- Ontario Energy Board - Documents
- Project Description Report
- Project Modifications
- Renewable Energy Approval documents
- Shadow Flicker Report
- Turbine Visualization Images
- Water Assessment & Water Body Report
- Wind Turbine Specification Report

# Depositions from Members of the Public

- The CLC meetings are open to the general public for observation.
- Notices of upcoming meetings will be posted on NextEra's website ([www.NextEraEnergyCanada.com](http://www.NextEraEnergyCanada.com)). AECOM will also publish Notices in the local newspapers.
- Brief depositions (up to 3 per meeting, at a maximum of 5 minutes each) may be made by members of the general public, providing the depositions pertain to items on the meeting agenda (i.e., the construction, installation, use, operation, maintenance and retirement of the Facility).
- Depositions will be selected at the discretion of the CLC Facilitator and in consultation with the CLC members and NextEra.
- To be considered for a public deposition, a request along with the written deposition must be submitted to AECOM at least one week in advance of the CLC meeting:

Email: [avril.fisken@aecom.com](mailto:avril.fisken@aecom.com)

Fax: 519.763.1688

Mail: 55 Wyndham Street North, Suite 215 Guelph, ON, N1H 7T8