NextEra Energy Canada
Bluewater Wind Energy Centre

Community Liaison Committee (CLC): Meeting #3

December 10th, 2014 6:00 p.m. to 8:00 p.m.

Stanley Community Centre
38594 Mill Road
Varna ON N0M 2R0

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.

NEXTera ENERGY CANADA

AECOM

Agenda

1. Introductions

2. Recap of CLC Meeting # 2
   - Purpose of the CLC
   - Project Overview
   - Public Attendance and Depositions
3. Parking Lot Items and any 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

Introductions

CLC Members:

- Paul Steckle
- Judy Keightly
- Dean Jacobs
- Kevin Wilbee

CLC Coordinators and Facilitators (AECOM):

- Avril Fisken
- Adam Wright

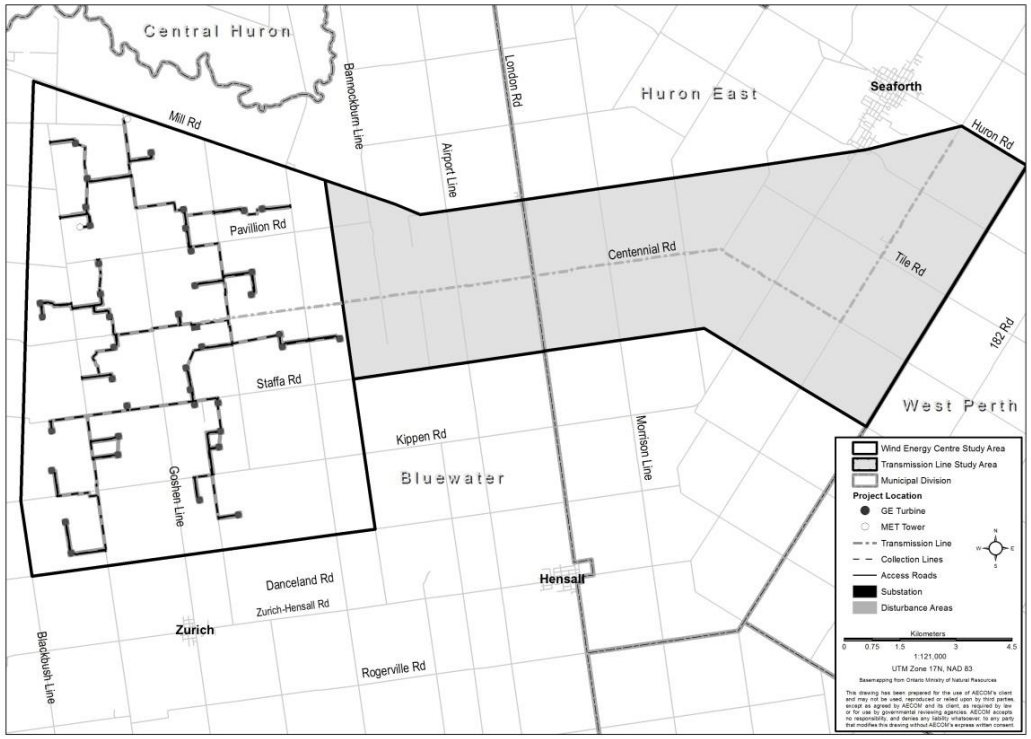
NextEra Energy Canada:

- Nicole Geneau, Director, Development
- Jeff Damen, Construction
- Andrea Garcia, Environmental Services
- Catie Mitchell, Business Manager
- Doug McIntosh, Regional Operations Manager
- Jeffrey MacFarlane, Operations Manager
- Jessica MacKay Ward, AECOM
- Christy Humphrey, NRSI
- *Derek Dudek, Community Relations Consultant*
- *Craig Scott, Canadian Green Power*

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, in the Municipality of Bluewater and a transmission line that extends into Huron East in Huron County
- 37 turbines, with 80 metre towers and 50.5 metre blades
- A generating capacity of 60 MWs
- Status of studies and approvals.
- Outline of construction process

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 3, 2014**
- Members were asked to advise AECOM of any errors, omissions or changes by **June 10, 2014**
- All recommended comments/changes were incorporated and the minutes were posted on NextEra's publically accessible website on **June 13, 2014**
- CLC members were also emailed the final minutes on **June 13, 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
- **At least 16 Huron County companies** used (subcontractors and suppliers) on the Bluewater project.
- There were nearly **$4M** in contracts with subcontractors and suppliers within Huron County.
- Peak volume of individuals on site including subcontractors was around **200**.
- 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:	200 at peak
Full Time Operations Jobs:	6
Capital Expenditures:	$160 Million
Corporate Income Tax:	$104 Million*
Landowner Payments:	$14.5 Million*

*Estimated over first 20 years of the project.

Recap: CLC Meeting #2 – Parking Lot Items

Parking Lot Concern	Response to Concern
Update on success of Bobolink habitat plan	The Bobolink Management Area has been established and is being managed in accordance with the permit requirements. Effectiveness monitoring completed in June 2014 confirmed that the Area is being used by Bobolinks.
Update on Summerhaven project regarding Bobolink	The Bobolink Management Area has been established and is being managed in accordance with the permit requirements. Effectiveness monitoring completed in June 2014 confirmed that the Area is being used by Bobolinks.
Provide indirect economic benefits development study to the committee for the next meeting	To be provided once it becomes available.
If I call NextEra, what is the process for timelines and what happens if there are no amicable results?	Information will be provided for Meeting No.3.
NextEra to provide protocol regarding fire and emergency procedures for Meeting Summary.	NextEra will provide emergency response plan for Meeting # 3.
On site tour CLC member enquired about the potential for NextEra to fund community projects.	NextEra to discuss potential with CLC member.

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.
- During construction: Use of industry best practices for spill prevention utilized. In unlikely event of a minor spill, clean up will be immediate and any impacted soils will be removed from the site and disposed of at an approved facility.

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: July 19, 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 MOECC** (Ministry of Environment and Climate Change) **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 MOECC 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 MOECC 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, LP
390 Bay Street, Suite 1720
Toronto, ON M5H 2Y2

Toll Free Phone: 1-877-463-4963

Main Office Line: 416-364-9714

Email: bluewater.wind@nexteraenergy.com

Website: 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 MOECC.

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 MNRF requirements
  - All 37 turbines were searched monthly
  - Annual report will be prepared in winter 2014
  - Species at Risk Monitoring (provincial) continues for the life of the project
  - 2015 Species at Risk monitoring will begin May 1
  - Bobolink habitat monitoring occurred during the summer of 2014
  - Bobolink habitat monitoring will continue in 2015 for 4 more years
  - SAR bat habitat compensation (bat house) monitoring occurred during the summer of 2014
  - Monitoring will continue in 2015 for 2 more years, and then once every 5 years for the life of the project
  - Butternut compensation monitoring will begin in 2015 for 2 years

Monitoring and Mitigation Measures

- **Bird and Bat Post-Construction Monitoring**
  - Monitoring will be conducted in accordance with requirements of the REA and MNRF 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 MNRF 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
  - Red headed-woodpecker monitoring began in 2014
  - Bat maternity colony habitat monitoring began in 2014 at 1 of 3 habitats required to be monitored
  - Monitoring was conducted in accordance with MNRF requirements
  - Annual report will be prepared in winter 2014
  - Red-headed woodpecker and bat habitat monitoring will continue at these habitats for an additional 2 years, and at remaining habitats for 3 years
  - Habitat monitoring for the following habitat types will begin in 2015 for 3 years, in accordance with the requirements of the REA:
    - Amphibian breeding habitat
    - Significant woodland compensation
  - Annual reports will be submitted to MNRF 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?

www.NextEraEnergyCanada.com

- 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). 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

  Fax: 519.763.1688

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