



# Meeting Summary – East Durham Wind Energy Centre Community Liaison Committee

**Attn.:** CLC members, NextEra Staff & Consultants

**Subject:** East Durham Wind Energy Centre, Community Liaison Committee (CLC): Meeting No. 3

August 27, 2015      6:00 pm to 8:00 pm

Durham Arena & Community Centre

451 Saddler Street West, Durham, ON

**Present:**

CLC Members

- Pat Greenshields; Bev Cutting; Stan Rowbotham; James Clements

NextEra Energy Canada

- Project Director, Development - Adam Rickel; Construction Project Manager - Jeff Damen; Operations wind technician - Jason Seelmann; Senior Technical Specialist - Derek Dudek; Biologist - Christy Humphrey, NRSI; Acoustic Engineer - Alex Dundon, AECOM

AECOM

- CLC Chair - Avril Fiskien; CLC Coordinator - Adam Wright

**Absent:**

- none

**Item Discussed****1. Welcome and Introductions**

Avril (CLC Chair) welcomed the Committee and members of the public to the third Community Liaison Committee meeting for the East Durham Wind Energy Centre and outlined that AECOM is a hired third party facilitator for the four CLC meetings over a two year period. Avril then welcomed the Committee members as well as members of the public.

The Chair then outlined the Parking Lot process for addressing issues which cannot be addressed at the meeting. These issues are addressed either through the Meeting Summary or at the next meeting.

The Chair then reviewed the Agenda for the meeting and outlined that the last 15 minutes would be open to the public to ask questions and receive answers from the NextEra team. The Chair also noted that there are two depositions for the meeting, Charlene Winger and Keith Osbourne.

The Chair asked Committee members and NextEra representatives to introduce themselves and outline their role / why they are on the Committee.

**CLC Members**

- Pat Greenshields – Participating landowner
- Bev Cutting - Councilor from West Grey Municipality
- Stan Rowbotham - Landowner
- James Clements - Landowner

**NextEra / Borea Construction Team**

- Adam Rickel - Project Director, Development for the East Durham Wind project
- Jeff Damen - Construction project manager
- Jason Seelmann - Operations wind technician leader for East Durham and Conestogo Wind projects
- Derek Dudek - Senior Technical Specialist
- Alex Dundon - Acoustic Engineer, AECOM
- Christy Humphrey - Biologist, NRSI

**2. Review of Meeting Agenda, CLC Meeting #2 Review (Slides 3-5)****Agenda**

1. Introductions
2. Recap of CLC Meeting # 2
  - Purpose of the CLC
  - Construction Overview and Update
  - Anticipated Timing of Commissioning and Operations
  - Public Attendance and Depositions
  - Requests for Additional Information
  - 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. Public Question and Answer

The Chair then reviewed items discussed at the second CLC meeting

**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 West Grey
- 14 turbines, with 80 metre towers and 50.5 metre blades
- A generating capacity of approximately 23-megawatts
- Received Renewable Energy Approval from Ministry of Environment and Climate Change (MOECC)

**Public Attendance and Depositions:**

- Local residents in attendance
- No depositions

The Chair then outlined the meeting summary review process for the 2<sup>nd</sup> CLC meeting, noting that CLC members were provided a draft version of the meeting summary for review and comment. After this review the minutes were updated and then circulated to the CLC members and posted on the NextEra webpage.

**3. Activities and Questions/Comments Raised Since the Second CLC Meeting**

The Chair reviewed the parking lot items from CLC# 2 (slide 6; and numbered below)

1. **NextEra to update contact numbers for the construction emergency plan**
  - Contact numbers were updated following CLC #2.

**Is the landowner provided with emergency contact information?**

Jeff Damen (JD) - The contact information previously provided was for the construction process. This information was shared with workers on-site so each person knew who to contact during construction activities. As we are almost at the end of construction, these numbers will be replaced



with the contact numbers for emergencies which are located on page 15 of the presentation as well as on the website and located on areas throughout the project boundary (see below).

**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: eastdurham.wind@nexteraenergy.com**  
**Website: www.NextEraEnergyCanada.com**

- 2. NextEra to provide detailed information regarding location of waste disposal site.**
  - Waste is handled by Wilton Sanitation in Mount Forest and the facility is located in the Mount Forest area.
  
- 3. NextEra to provide more information at CLC #3 meeting regarding the fire plan.**
  - Fire suppression systems were installed by a third party installation company and approved by the fire chief. NextEra will continue to work with local first responders to aid in training and provide information regarding NextEra's emergency response plan.

**Since the West Grey fire department does not undertake high angle rescue, how does NextEra propose to address fires in the turbines?**

Jason Seelmann (JS) - NextEra has an operations emergency action plan that has been submitted to and approved by the fire chief. This process outlines that each NextEra team member is trained to undertake high angle rescue. The expectation from local West Grey fire and or rescue departments is that they would assist, if necessary, once the victim was on the ground.

**How do you put the fire out when it's 400 feet in the air?**

If the temperature is higher than usual there is a system within each turbine that extinguishes the fire. Generally speaking, there are very few flammable fluids within the turbine.

**If there were sparks from a tower that was on fire and lands in a field and sets it on fire, who pays for the damages?**

Adam Rickel (AR) - NextEra's insurance would pay for any damage confirmed initiated by a project component. This being said, the fire suppression system would most likely contain these sparks before landing on a field.

**Would NextEra be billed for this?**

AR - NextEra would act like any other tax-paying landowner and pay the applicable associated costs for the response.

- 4. NextEra to provide searching protocol as per MNRF**
  - These will be addressed later during the course of the meeting.
  
- 5. NextEra to confirm number of bird mortalities for MNRF thresholds.**
  - Discussed later on in presentation (slide 17).

Originally there was a question about turbine lighting and whether fewer turbines could be lit. This process is governed by Transport Canada and Transport Canada required that we install and maintain more lighting than was submitted in our lighting plans.

Derek Dudek (DD) - Regarding the use of different lights (to lessen impacts) we are looking at ways we can mitigate the impact of lighting. As we continued our research, we will provide updates to Committee members.

**Bev Cutting requests that specifics regarding turbine lighting are provided at CLC #4.**

Turbine lighting is placed on parking lot to be discussed at CLC#4.

**Can you attach a concave collar that directs the light in another direction?**

DD - That is one solution that we are looking at.

#### **6. Construction Debris**

- All construction debris is hauled away and recycled or brought to an approved waste management facility. The goal is to fully complete the construction cleanup process in three weeks.

**Where is the approved facility that these items are taken to?**

JD - We have numerous bins on site for each type of waste, including a bin that is lined for soil contaminated with oil, gas or other similar items collected in an event a spill occurs. All of these materials are shipped to the licensed Waste Management facility in Mount Forest.

**What is the process to request a donation or if a community group is interested in accessing funds?**

AR - We do not have a formal process for this project, but if you do have any funding request please contact Derek Dudek using the toll free number provided in the slide deck (slide 15) or the email address (see below):

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

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

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

**Comment - NextEra had a media release which stated that they supported the Dundalk Fall Fair. This is curious as Dundalk is not in this municipality.**

East Durham Wind, LP supports several local charitable endeavors requested by residents in and around the project area. We are open to all suggestions and support causes within Grey County as a whole, as well as West Grey.

The Chair then invited Adam R. to discuss Construction stats and local labour (slide 7)

#### **Construction Stats**

- General Contractor is Borea Construction Canada.
- Nearly \$3 million was invested in local businesses throughout the construction of the East Durham Wind Energy Centre, which began in late March 2015.

- Services ranging from materials, equipment, utilities, labour, housing, and subcontractors, were provided by about 15 local businesses.
- Peak volume of individuals on site including subcontractors was approximately 150. There were 3 positions created that will last the life of the project.
- Indirect economic benefits will not be measured, but local hotels, restaurants, home improvement stores, gas stations, machine shops, pubs and grocery stores did see an increase in business once the project started construction.

**Projected Economic Impact**

Construction Jobs: 150 at peak

Full Time Operations Jobs: 3

Capital Expenditures: \$ 65 Million

Property Tax: \$ 2 Million\*

Landowner Payments: \$ 5 Million\*

\*Estimated over first 20 years of the project

**Of the total employment, what percentage of this is local?**

NextEra can provide specific details at the next CLC meeting regarding percentage of local employment (NOTE: Update provided below).

Efforts were made to hire employment and local services from within West Grey, and the local region. Services ranging from materials, equipment, utilities, labour, housing, and subcontractors, were provided by about 15 local businesses.

- Civil – 100% (Cedarwell excavating, Better Measures Surveying)
- Underground Collection System – 100% (Avertex has an Orangeville yard.)
- Of the over 85,000 on-site labour hours (through August 6th, 2015), 99.6% of those hours were worked by Ontario residents.

**4. Update on Construction and Installation**

**Project Activities and Status**

**1. Planning and Resource Assessments**

- Surveying: **Complete**
- Geotechnical Studies and Sampling: **Complete**
- Archaeological Assessments: **Complete**

**2. Permitting and Clearances**

- Awarded Feed-in-Tariff contract by the Ontario Power Authority: **July 2011**
- Renewable Energy Approval (REA): **Issued January 2014**
- Saugeen Valley Conservation Authority: **Issued in June 2014**
- Building permits: **Received in August – October, 2014**
- MTCS sign-off on archaeological studies: **Complete**

**3. Detailed Design**

- Road Design **Complete**

- Turbine Foundations **Complete**
- Collection **Complete**
- Substation **Complete**

**4. Construction: Complete**

**5. Clean-up, Modifications and Road Repairs: Ongoing**

**6. Operations: Began July 26, 2015**

**7. Decommissioning:** Will occur at the end of useful life of the project  
(e.g. after 20 to 30 years of operations)

**NextEra states that they are contributing to the local economy but there are no hotels or pubs in West Grey?**

Whenever possible, NextEra tries its best to contribute to local/regional hotels and restaurants as well as residences rented in West Grey.

**How many contractors of the 150 people were local? Also how long is the peak timeline?**

JD - I would estimate the 70% of the contractors were local people.

**Regarding the property tax, is that number province wide or local?**

AR - This is local over the life of the project.

**At one of the previous meetings, there was uncertainty regarding which exact turbines were not going to be built. In the end which two turbines did not get built?**

16 turbines were planned for permitting. The two turbines that were not built were Turbine 13 and 14 (NE corner of the project and SW corner of the project).

The Chair invited Jeff Damen to talk about post construction activities

**Construction Clean up, Modifications and Road Repairs: July 2015 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 will be utilized. In unlikely event of a minor spill, cleanup will be immediate and any impacted soils will be removed from the site and disposed of at an approved facility.
- Reclamation: July to Spring 2016.
- 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).

Jeff D. explained that currently, all of the tile repairs have been addressed, and the next phase is reclamation and clean-up of the County and Municipal right of ways (ROWs). Certain entrances are

also being reclaimed as these are wider areas which need to be reclaimed to a smaller size.

**Does this include putting road signs that were knocked down back up?**

JD - There are post construction surveys that are completed by a third party of issues that needed to be addressed. From what I can recall, no traffic signs were noted at County Rd 4 and 23 but I can look into this.

*(NOTE: Later confirmed that these signs were knocked down due to a non-project related traffic incident.)*

**What about contamination waste? What spill would cause contamination?**

JD - If there was contamination, this would be disposed of in the manner prescribed before. As far as I know, there has been no material identified. We can follow up and provide more details.

*(NOTE: NextEra confirmed after the meeting that in accordance with MOECC guidelines NextEra has not experienced a spill on site that required notification to the MOECC spills action centre.)*

Jeff D. then noted that disking will happen to address compacted soil in certain areas as well as installing gates on some of the access roads (as per landowner's requests). Once the soil is spread, NextEra will place grass seed. In this instance NextEra is going one step above standard practice and hydro-seeding in accordance with MTO requirements. This mix includes winter wheat which increases stability in winter months. When it is applied it looks blue on the ground, as this is a mix of newspaper and seeds and helps ensure that the seed takes root.

**When the municipality asked that collections lines be placed one (1) metre below grade and encased in concrete, did this occur?**

JD - The collection lines have been installed in accordance with the IESO. Cables are installed as per the electrical safety code and not encased in concrete as this is not an industry standard. We followed all regulations and standards as outlined by the ESA (Electrical Safety Code).

**The report that came from the municipality's engineer noted that there was damage to the West Baptist Road. What is going to be done with that? Also, is there a spring review of the roads to ensure spring breakup didn't cause more issues?**

Yes, there are some sections of road (in addition to West Baptist Road) that need to be re-graded and repaired; we will work with our 3<sup>rd</sup> party contractor to ensure these issues are addressed now and in the future.

**Did any of the turbines require de-watering during construction?**

JD - Yes this was required and was controlled by a third party contractor. Details and information relating to the pumping including location of where water was pumped can be provided for the next CLC meeting.

**5. Operations and Maintenance**

Jeff then provided an update on Project Commissioning and Operations

**Wind Turbine Commissioning: July 26, 2015**

- Turbine commissioning took place in sequential order prior to the planned Commercial Operation of the Project.
- 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.

**Who is going to decommission the project?**

Adam R. provided an overview of the decommissioning process, citing that this occurs after the life of the project. NextEra plans to be the owners of the project for the life of the project and has sufficient funds to cover decommissioning costs.

Jason S. then provided an overview on operations.

**2. Wind Turbine 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.

Jason also noted that there have been three full time employees added for this project (positions will last for 20 years) who are located in Mount Forest. NextEra hosted two job fairs and reached out to as many people as possible for the positions. The operations teams will conduct any planned or un-planned repairs throughout the life of the project. Jason also noted there is a “break-in” service period which is being wrapped up in the next while.

**In the replacement of a major component do you deal with the county and municipality, or just the county (referring to slide deck)?**

JD - This is an error in the presentation. The process is the same as it would be for the construction process and NextEra would work hand in hand with both the county and municipality.

**What does de-commissioning entail?**

JD - It is the process of when a turbine is removed including all components, except for the concrete which is below 1m below grade.

**What portion of the structure is not recyclable and what do you do with these components (i.e. where does this material get disposed).**

NextEra to provide information regarding percentage of the structure which is not recyclable and

where these items are disposed.

*NOTE: Update below provided since CLC meeting*

There is potential for blades to be turned into concrete fill, asphalt, etc. Moving forward NextEra has a team looking into further options so that when decommissioning occurs, there are plenty of options to consider when recycling the blades.

**Comment - You should use 'green' concrete as it is better for the environment.**

JD - Just as a note, the concrete NextEra uses for the turbines is the same type of concrete that is used for barns or other items around rural properties in the region.

DD - NextEra conducted research and contacted OMAFRA and the MOECC. From their perspective there would be more environmental damage to remove the concrete that is one (1) metre below grade. In particular, OMAFRA noted that they perceived this concrete to not effect agricultural activities.

**How does de-watering affect my property?**

JD - De-watering is the process where a hole is dug and water comes into the hole. We then have to de-water this hole so concrete can be poured. For these sites this water is pumped approximately 10 metres away and released to naturally drain through the ground. Once the concrete pour is complete and the concrete is set, the dewatering equipment is removed. This construction activity is no different than any other typical construction process that would happen in rural areas in the region (e.g. barns, seal slabs, etc.).

The Chair noted that more information regarding de-watering will be provided at CLC #4.

Derek D. then discussed the complaint resolution process for operations (slide 14).

#### **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
- NextEra will provide the local MOECC district office with a written record 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: eastdurham.wind@nexteraenergy.com**  
**Website: www.NextEraEnergyCanada.com**

**How many complaints have been received?**

DD - To date we have received eight complaints and all have been addressed.

**It says that you have to file a letter outlining the complaint. Do you provide the file number and name of the MOECC person to ensure residents can follow up?**

DD - We don't do this now but we can definitely look into this and see if we can provide the name of the person handling the process at the MOECC.

**Comment - A lot of information goes from me to NextEra, but little information comes back to me from NextEra. I asked for one night for the turbines to be turned off and this could not be accommodated. I have provided wind speed, directions, rotations per minutes (rpm), and really haven't heard back about this.**

**Comment - People have submitted complaints and these people have not received a letter regarding these complaints**

*NOTE: Update below provided since CLC meeting.*

East Durham Wind, LP is currently reviewing its internal procedure for providing formal written responses to formal complaints in an effort to ensure that adequate amounts of time are given to investigate individual matters. East Durham Wind, LP strives to contact citizens following their complaints to fully understand their concerns and investigate the issue(s) and will make every effort to provide formal responses in a timely manner.

**Comment - 18 of 30 nights I have been kept up, I need a noise by-law to be put in place to ensure these things are not operating during 7pm and 7am. What is the contingency plan for people getting Wind Turbine Syndrome and (other impacts)?**

Avril notes that NextEra will follow up on the complaint resolution process and bring this back to the next meeting.

Derek then discussed the Monitoring and Mitigation Measures for Operations.

**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.

#### **Why are you waiting until the fall? When specifically will the acoustic testing occur?**

JS - The equipment will be deployed in mid-September and this is compliant with the MOECC suggestions to ensure these occur during the most appropriate ambient conditions.

#### **Can you guarantee that this can occur tomorrow?**

JS - The contractor is hired and must conduct the audit in accordance with the guidelines that have been written by the MOECC. These parameters must be followed by the sub-contractor.

Alex Dundon (AD) - To ensure we have baseline data based on the turbine noise, we need to isolate the sounds to just the noise that is produced by the turbine. When there is increased tractor noise and other noise this distorts the accuracy of the monitoring. There are two types of measurement, one is at the turbine and called emission. The second type of test occurs at people's houses and the vendor needs to work with community members to ensure a representative location is found. As a note, NextEra cannot dictate where the locations are. The vendor is independent and must follow MOECC regulations. As a note, this testing monitors the dBA levels and not the dBC levels. .

#### **Can we have a date and location of when these tests are going to be conducted, and place these on the website?**

DD - NextEra will look into this and contact Bev Cutting as well as interested community members with an update.

#### **You used the term annoyance; in what way are you using it? Is this a medical term? Also did you look at the Grey Bruce study not just health Canada?**

AD - I am not speaking from a medical perspective but rather technical terms used in the industry. And yes, I have reviewed that study; I try my best to review all relevant studies on this topic.

#### **We have determined which citizens are most impacted by noise. Are you going to be testing all 14 sites and compensating people who are impacted.**

We use the tests that were conducted pre-construction to help aide in location. We can make suggestions for this but we cannot dictate locations for testing as these are regulated by the MOECC. I can make suggestions for locations to be tested and have done this since we received the first complaint regarding noise.

The Chair notes that if we can have these locations from the public who believe are most impacted, they can be forwarded to NextEra and might help identify areas that should be tested.

**Can NextEra provide a contact name and number from the MOECC regarding noise complaints?**

JS - RWDI is the vendor for the project and are located in Guelph, ON. Regarding the MOECC information we will have to follow up on this and can provide more details as they become available.

**Will there be access to the raw data of the acoustic monitoring as well as other details of the report?**

DD - We will place this on the Parking Lot and can be discussed in more detail at the next CLC meeting.

**Are there any limitations to the number of studies? Is there a reason that NextEra cannot do more than the minimum requirements? Why can these studies not be undertaken each month?**

JS - The first site that we commissioned in Ontario was Conestogo Wind Energy Centre, and we did conduct studies that went beyond the requirements. One of the issues was that there was too much ambient noise which actually impacted our ability to measure the noise related to just the turbine. For these reasons we need to follow the regulations that are prescribed by the MOECC.

**6. Preliminary Discussion of Monitoring and Mitigation Measures (to be further discussed at CLC Meeting No. 4)**

Christy H. (CH) from NRSI then spoke to the Monitoring and Mitigations measures relating to Operations.

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

- Species at Risk mortality monitoring is occurring in the summer and fall of 2015.
- Monitoring is being conducted in accordance with MNRF requirements.
- All 14 turbines have been searched monthly since the turbines started operating.
- Annual report will be prepared in winter 2015.
- Species at Risk Monitoring continues for the life of the project.
- 2016 Species at Risk monitoring will begin April 1.

**What are your numbers to date?**

CH - These results are provided to the Ministry of Natural Resources and Forestry (MNRF), and NRSI is instructed by MNRF to not distribute these results to the public because of the sensitive nature of the data.

**At any time does this information become public knowledge?**

CH - You will have to ask the MNRF this question as this is not my direction. MNRF determines which Species at Risk observations are considered "restricted". A Data License Agreement with the MNRF is required to access records classified as "restricted".

1. **Bird and Bat Post-Construction Monitoring** (*NOTE: updated to address questions from parking lot*)

- Monitoring will be conducted in accordance with requirements of the REA and MNRF Guidelines.
- Monitoring will begin May 1, 2016.
- Turbine searches will occur twice weekly at a subset of turbines (10) from May 1st through October 31st, and will continue weekly from November 1st through November 30<sup>th</sup> to target raptors.
- Searches are performed by walking transects spaced approximately 5m apart, within 50m of the turbines.
- Correction factors are applied in order to calculate overall estimated mortality rates across the project for birds, bats, and raptors. These include Searcher Efficiency, Scavenger Removal, and Proportion of Area Searched. Searcher Efficiency and Scavenger Removal trials are conducted by placing out test carcasses and measuring the number found by the searchers, as well as the number removed by scavengers or other means. The Proportion of Area Searched is the area within the 50m radius actually searched. Obstructions and densely vegetated areas are not searched, and are mapped. Proportion of Area Searched is normally at, or close to, 1.00.
- The remaining 4 turbines are searched once monthly. Annual report provided to MNRF by March 31 following each year of monitoring.
- A minimum of 3 years of monitoring are required.
- Thresholds are identified within the MNRF guidelines and within the REA, and are as follows:
  - 10 bats/turbine/year
  - 14 birds/turbine/year (all birds)
  - 0.2 raptors/turbine/year
  - 0.1 raptors/turbine/year (provincially rare raptors)

**Who conducts this mortality monitoring and would you allow a public resident follow NRSI for these processes to get better understanding of the process?**

CLH – NextEra has hired NRSI as a 3<sup>rd</sup> party consultant to undertake the mortality monitoring.  
DD - I cannot give you an answer on tonight but I will follow up with you in the next few days.

**Are you doing any harmonic testing for underground species (moles, mice, etc.)?**

CH - This is not part of the monitoring program that we undertake, although I have noticed many mice, earthworms etc. within 50m of the turbines that one would expect to find in agricultural fields.

## 7. Depositions

The Chair then outlined the deposition process:

- 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

The Chair then invited Charlene Winger to present a deposition.

***Charlene Winger read deposition (attached along with the meeting summary)***

The Chair opened the floor to questions.

**Has anybody from towertex been contact since my email in June?**

DD - Catie Mitchell from NextEra's Business Management team may have been in contact with them. This is a province-wide issue that NextEra is looking at and currently there is not a timeframe for actions as we need to determine the technical aspects. As a note, we have looked into various options including light shades and are considering all of them.

The Chair then invited Keith Oswald to present deposition.

***Keith Oswald read deposition (attached along with the meeting summary).***

The Chair opened the floor to questions. None received.

The Chair noted that a date in November is being considered for the fourth CLC meeting.

**Can I request that members of the public and CLC members are notified 3 weeks in advance of the next meeting to ensure people are aware and can make room in their schedules? As well, please make sure the minutes are posted to the East Durham website in a timely manner.**

The Chair noted that this is not an issue and will provide 3 weeks' notice for CLC #4 and ensure that CLC minutes are posted on the East Durham website as soon as possible.

**I spoke with a community member who is worried about the clean up on Baptist Church Road; specifically the Judge's driveway. There is also a deep ditch on the road and there are worries about the collection of ice in the winter months. Can a guard rail be established?**

JD - Please provide me with her contact information as I am not satisfied with the clean up on Baptist Church Road either. As a note, the reclamation process is not deemed completed until all parties are satisfied (municipality, members of the public). Regarding Turbine 1, this reclamation process is not complete and will be complete over the coming weeks. Regarding Mr. Judge's driveway, we have reached out to him about this and we are going to level up that area and install stone on the edge of the driveway will be placed to ensure that it is not sloping down to the pond.

**Comment from Peter Turner (read by Susan Tweeny) - My name is Peter Turner and I reside at 553612 Glenelg Road 23 next door to Pat Mcmillen who has turbine #2 on his property. After getting off the afternoon shift that I work I arrived at my home at approximately 1 AM. I went out to my garage to do some maintenance to a motor vehicle that I own. Between 2 & 3 AM the power went out and it had started raining. I looked out the north west man door of my garage to see how #2 turbine was, It was without the flashing beacon operating and the blades were**

*freewheeling or what I would call a runaway situation. It (the noise from the turbine) was very present even over the violent storm, it was as if the wind turbine was becoming a helicopter or at least trying. The noise that I was hearing was not good for this turbine and as my trade is maintenance I worry that this episode has put undue stress on this machine. Is this normal practice for this company to stress a new piece of equipment?*

*After approximately twenty minutes the beacon on turbine #2 started flashing violently and the turbine stopped itself. Is there no mechanism built into these machines that during a violent storm & power outage to stop them before potential damage is done?*

JS - There was a call made to me regarding turbine 2 and what happened that night; I reviewed the data from that night and I couldn't detect a difference in RPM, but this being said I can follow up again and widen the time frame I reviewed and get back to you by emailing you directly.

### 8. Tentative Items for Discussion at Future CLC Meetings

Several items were brought forward for discussion at CLC #4, please refer to Parking Lot table below.

The Chair noted that the meeting was now over the scheduled time and concluded the third CLC meeting. The Chair thanked members of the public as well as CLC members for their time. The Chair also noted that if there are additional questions or comments to please forward these to either Adam Wright or Avril Fisker for CLC related enquiries or use the contact information provided for NextEra.

#### PARKING LOT

Parking Lot Topic	Action
<ul style="list-style-type: none"> <li>• Turbine Lighting Update</li> </ul>	<ul style="list-style-type: none"> <li>• East Durham Wind, LP is currently reviewing potential voluntary mitigation measures related to turbine lighting. At this time we are reviewing several technologies which require a broad range of input based on a number of different variables. While we appreciate that this is an area of concern for the local citizens, we unfortunately cannot give any further information on what measures, if any, may be implemented or provide any firm answers on timelines.</li> </ul>
<ul style="list-style-type: none"> <li>• Percentage of local employment</li> </ul>	<ul style="list-style-type: none"> <li>• Update provided in CLC #3 Meeting Summary (pg. 6)</li> </ul>

<ul style="list-style-type: none"> <li>Percentage of non-recycled material in turbine / turbine components. Where does this material get disposed?</li> </ul>	<ul style="list-style-type: none"> <li>Update provided in CLC #3 Meeting Summary (pg. 9)</li> </ul>
<ul style="list-style-type: none"> <li>Ground water impacts and drinking water impacts (also de-watering details)</li> </ul>	<ul style="list-style-type: none"> <li>This issue has been discussed in detail, specifically during the project’s Environmental Review Tribunal in early 2014 when Mr. Van Den Bosch appealed the decision by MOECC to approve this project for construction and operations. The hearing provided Mr. Van Den Bosch the opportunity to prove serious or irreversible harm to the natural environment. The Summary of Findings from this decision are below. Should anyone want to see the full report, please email us and we will provide: eastdurham.wind@nexteraenergy.com.</li> <li>Summary of Findings             <ul style="list-style-type: none"> <li>[201] In the result, the Tribunal finds that the evidence does not demonstrate that engaging in the Project in accordance with the Approval (more specifically, the construction, use and decommissioning of the turbine concrete foundations and directional drilling), will cause serious harm to human health (due to contaminated drinking water), or serious and irreversible harm to fish or the natural environment (more specifically, the endangered Redside Dace species or its habitat).</li> </ul> </li> <li>DECISION             <ul style="list-style-type: none"> <li>[202] The appeal brought by Mr. Van Den Bosch is dismissed.</li> </ul> </li> <li>Construction dewatering, unwatering, or water control are common terms used to describe removal or draining groundwater or surface water from a construction site, by pumping or evaporation. On a construction site, this dewatering</li> </ul>

	<p>may be implemented before subsurface excavation for foundations, shoring, or cellar space to lower the water table.</p> <ul style="list-style-type: none"> <li>• In all cases, the East Durham team removed the minimum amount of water needed for safe construction practices.</li> </ul>
<ul style="list-style-type: none"> <li>• File number and name of MOECC person handling noise complaints.</li> </ul>	<ul style="list-style-type: none"> <li>• NextEra to follow up and provide update at CLC#4</li> </ul>
<ul style="list-style-type: none"> <li>• Confirm if raw data from Acoustic Monitoring will be available for public review</li> </ul>	<ul style="list-style-type: none"> <li>• Update will be provided at CLC#4</li> </ul>
<ul style="list-style-type: none"> <li>• Invite RWDI to next meeting to discuss noise impacts</li> </ul>	<ul style="list-style-type: none"> <li>• RWDI will be invited to CLC#4.</li> </ul>
<ul style="list-style-type: none"> <li>• Potential for B. Cutting to observe Mortality Monitoring</li> </ul>	<ul style="list-style-type: none"> <li>• Update will be provided to Bev Cutting before CLC #4</li> </ul>
<ul style="list-style-type: none"> <li>• Date and location of upcoming noise assessment, circulate this to CLC members</li> </ul>	<ul style="list-style-type: none"> <li>• Details to be provided to CLC members and interested members of the public once available.</li> </ul>

**Appendix A**  
**Depositions from Members of the Public**

Good evening Ladies and Gentlemen.

My name is Keith Oswald and I am a non-participating resident of the East Durham Turbine project. I've asked to speak to you today to bring to your attention a pressing concern that is adversely affecting my right to the quiet enjoyment of my property. My home is 635m almost directly north of turbine #2 and down in a valley. We have started to hear two distinct new noises. The first of which I describe as a low pitched oscillating drone and the second of which I describe as a high pitched electrical hum. At times the sound is not particularly loud, but on occasion it has been very loud. Regardless of volume the noise is persistent and grating. During the day with all of the other typical traffic, farm and animal noises, you would think that these two new sounds would be drowned out. They are not.

My wife and I both have Science degrees and we are familiar with the Scientific method. Instead of jumping to conclusions we investigated these sounds. We turned off the main breaker in our house to ensure that the sounds heard inside were not generated by appliances. We went to several different places on our 10 Acre property to assess the level and approximate direction of the noises we heard. Both noises come from the direction of turbine #2 and increase in loudness with proximity to the turbine. We repeated this action a few nights in a row until there was no doubt about the source. There was one night when Hydro had a planned power outage between 2:30-4:30 am. My wife was woken up in the night by a terrible noise during the power outage and could clearly hear the noise coming from the operating turbines. Not surprisingly we have had some, but not complete relief, from these noises and upon checking have seen that turbine #2 was not active. We have tracked these events and recorded time, weather and Turbine speed and have noted that higher speeds of 10-12 rpm have produced the noisiest events.

Our neighbours have also suffered from the noise generated by the turbines. Turbine #2 directly impacts more non-participating residents than any other turbine in this project – a fact that was pointed out to NextEra on several occasions before the final decisions were made on which sites to place turbines. Susan Tweney lives to the east of Turbine #2 and like us lives down in a valley. She too has documented the same noise situation that we have. Our next door neighbours Colin and Jackie Nibbs moved here to enjoy their retirement last year and now have a clear unobstructed view of Turbine #2. Jackie hears the rhythmic noise late at night despite the closed windows and drawn curtains that are needed to shut out the blinking red light. Peter Turner, whose property is adjacent to Turbine #2, has also complained of the noise and was particularly concerned that during a violent thunderstorm on August 10<sup>th</sup> he could still hear the turbine noise over the storm.

We are not alone in this. Jan Buehlow has heard what she describes as whooshing "small plane" noises right from the start up of the turbines near to her property and finds that this extremely annoying sound seems to get louder as time goes by. Another neighbour Gail Stoddard states that she and her husband are very bothered by the noise from the turbines near them.

In early 2013 we questioned the methodology and validity of the sound study with respect to the fact that the ISO9613-2 method is not validated for sound sources above 30m in height and under-predicts noise in concave areas. This was presented at the final public meeting and in an Email to Derek Dudek

of NextEra, result - we were brushed off. The potential error was described as minimal in the report of the public meeting of Jan 15, 2013. Obviously not. It has become apparent that the methodology is not valid since unwanted noise is projecting from the turbine over half a kilometer away. In a conversation with a representative of NextEra my wife was told that she "would get used to it" in reference to any annoying sound. Unfortunately we did not get this person's name.

Derek several times referenced that NextEra was not permitted by law to allow sound above 40 decibels at any receptor. It seems like the strict letter of the law is NextEra's main concern along with "... to ensure maximum efficiency of the project." in Derek's own words. In April of this year Adam Rickel of NextEra stated that "... we are confident that none of the proposed turbines will affect the health or enjoyment of your property." Yes Adam, we too are confident that the Leafs are going to win the Stanley cup this year.

We have complained three times already about these noises only to be told by Jason Seelmann of NextEra that a follow-up sound study "will not be done for some time ..." as this is dictated by the MOE. In the meantime we hear these sounds everywhere on our property; whenever turbine #2 is running. We hear it at night when looking through our telescope or enjoying the night sky and Perseid meteors. We hear it on our deck; we hear it in our house. We hear it with windows open or closed; we hear it in our bedroom. My wife has been woken up by these noises and is losing sleep. I can sleep through a thunderstorm but when I get up in the middle of the night to answer nature's call I cannot get back to sleep due to the constant, irritating, oscillating drone and electrical hum.

Don't quote me 40 decibels and pat yourselves on the back for being minimally compliant with the law. You have installed huge industrial power generators in close proximity to my home that, when brand new, emit noise that disturbs our sleep and will get worse as the equipment ages. You have compromised the quiet enjoyment of my property and already shown that being "good neighbours" is a far second to maximizing the efficiency and productivity of your power plants.

I am asking you to be a good neighbour and maintain at least a minimum amount of goodwill in the community. At least have the common decency to keep quiet during the hours of darkness so that we can get the 7-9 hours of sleep that the average person needs. I cannot call the police to tell you to stop disturbing the peace late at night but if I could, I would.

Thank you choosing to listen to me tonight. I wish I had the choice to not listen to your turbines.

Dear members of the East Durham Wind Project Community Liaison Committee.

My name is Charlene Winger and I live across the street from the project area. I am here to speak on behalf of our community. We would like to speak to the issue of the lighting currently used for the East Durham Project wind turbines. Many of the residents within and around the project area are deeply disturbed by the continually blinking bright red lights they are now subjected to every evening: from the windows of their home, locations across their properties, and from the roads they use whenever they leave or come home. Many people, whether they are living beside, or across the road from turbines, or as far as 10 km away, are affected by these bright red blinking lights. The views, which for many, were once the reason they moved to Grey County to appreciate, have now been altered significantly by these new structures. Some describe being powerfully disturbed by these lights, and others express being generally annoyed, day in, day out, night after night. At a minimum, we are frustrated and disappointed about the impact the lighting is having on our quality of life.

Many Grey County residents have put everything they have financially, into their homes, with the belief that they would live their lives relatively undisturbed in a peaceful, and serene countryside. For me personally, the wall-to-wall windows we have around our home, that once overlooked nothing but hills and fields, now face turbine blades turning during the day, and their red blinking lights in the evening. I am aware that there are many who constantly see the same thing from their bedroom, dining, kitchen, living rooms and deck patios. Many more will be most affected by the lights once the leaves fall from the trees that are currently blocking views of the lighting. Still more are saddened and concerned for their neighbours and friends that must live with this new intrusive lighting. While I have heard from many Grey County residents concerning this dramatic change to their quality of life, I would like to share a few of their comments here, that I believe summarize, nicely, some of the sentiments of those affected.

Resident #1

“We both find the lights on the turbines very intrusive. Sadly, for us, we can see every one of the turbines from various parts of our property - a view that was totally devoid of any man-made objects for the 140 years since the house was built. Because of the lights, our nightly view of the stars has been significantly impacted and if we sit on our deck for an evening all we can see are these flashing lights”. Bob Kelly

Resident #2

“We are seeing about 50% of one light. But come fall, when leaves fall, we will see 100% directly from our living room and dining room windows, not to mention the entire turbine fills our window. What a change in lifestyle this turbine has caused and to think we moved here to enjoy our retirement. We can't afford to move so we have to live with this new annoyance in our lives. I understand that my neighbours have the same annoyance.” Colin and Heather Nibbs

### Resident #3

“The huge blinking red lights I now have, have destroyed my beautiful night sky. I used to love walking around my property at night listening to nature and looking at the stars. I purchased this property specifically because I could do this here in the country. Now this simple pleasure on my own land has been destroyed. We must find a way to at least eliminate these red lights in our night sky. This at least, would give me some relief at night from this disaster” Len Van Den Bosh

### Resident #4

"We live approximately 2 kms northeast from Charlie Black's turbine and a little further from Malcolm Black's turbine. The southwest corner of our home is heavily treed and at the moment, the blinking lights are not an issue, though we can see some blinking of one turbines through the trees. However, when the trees start to thin in the Fall and lose leaves, we'll have clear view from the back of our home of the blinking lights. I remind NextEra employees that Fall comes quicker here, quicker than even in Toronto. Indeed, leaves are starting to change colour already (mid August) and by early October to the 15th at the latest, all trees will be bare. And unfortunately, spring does arrive later as well. Trees are most often not in full leaf until late May, usually early June. Consequently, the blinking lights will be visible, for us, 8 or 9 months. On the back of our house is a large porch which we plan to winterize...so we can enjoy it year-round rather than just in summer months. However, I fear the blinking lights will be annoying and a detriment to us, much akin to neon blinking signs. I urge NextEra to address this matter. We shouldn't have to accept any detriment to the quality of our lives." Mr & Mrs Greg Ayres

### Resident #5

“Concerning the blinking red navigational lights, I feel strongly they should be changed to use a different technology that does not blink all the time. It is difficult as it is, maybe even impossible, to live in such close proximity to wind turbines. The adjustment living with turbines is enormous and very hard to make and the blinking lights just remind us of what we see in the day.” Suze Tweeney

### Resident #6

I bought my property some 27 years ago eventually moving here permanently some 20 years later. Neighbours have come and moved away but the landscape has not changed. Never in all my wild dreams did I envision that wind turbines would come to this area. I am not opposed to wind turbines but they never should have come to such a beautiful, quiet area where so many people live. The 14 wind turbines have benefited a few financially but have annoyed many residents who now have to live beside them, across the road from them or a concession or two away from them. The blinking red lights are visible when we sit outside. They are also visible when we are lying in bed. When the leaves fall off the trees they will be visible even more. When we have visitors come from Toronto they are so impressed with the “darkness” of the

night and the view of thousands and thousands of stars in the sky. They say that it is an unbelievable site. NOW, we have the annoying RED BLINKING LIGHTS.

CLC, please be responsible and listen to the whole community and not just those we have benefited financially. Give back to this community. Replace the blinking red lights.” Paul Hauerbach

It would go a long way towards helping to repair our quality of life, if Nextera could mitigate the turbine lighting issue. We realize that the current lighting is Transport Canada approved and that Transport Canada would also need to approve any recommended lighting changes recommend by Nextera. I understand that Transport Canada are open to options that meet the regulations. I also understand that some people have already passed along potential lighting options to Nextera staff to consider. Back in June, I myself sent some information on Towerex shade lighting, with their contact information, as requested by a Nextera representative. I also asked about the potential to install lights that only flash on when approached by an object-such as a plane. We were pleased to hear back from Nextera that they would be doing some research on options and that this issue would be brought forward for this August 27<sup>th</sup>, 2015, CLC agenda.

We all hope that there is some good news for us today.

Thank you for your consideration