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# 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.1

July 29, 2014 6:00 pm to 8:00 pm

Durham Arena & Community Centre

451 Saddler Street West

## **Present:**

CLC Members

- Pat Greenshields, Carol Lawrence (in lieu of Bev Cutting), Stan Rowbotham, James Clements

NextEra **Energy Canada**

- Project Director, Development - Adam Rickel; Environmental Services Project Manager - Nancy O'Neill; Operations Manager - Ray Dewaepenaere

Borea Construction

- Louis Gervais

AECOM

- Avril Fiskens, Adam Wright

## **Absent:**

- Bev Cutting



Item Discussed	Action
<p><b>1. Welcome and Introductions</b></p> <p>Avril (CLC Chair) welcomed the Committee and members of the public to the first Community Liaison Committee meeting for the East Durham Wind Energy Centre and outlined that she is a hired third party facilitator for the 4 CLC meetings over the next two years. The Chair then noted that if any member of the public had any questions pertinent to the conversation to raise their hand and let the Chair know.</p> <p>Chair asked Committee members and NextEra representatives to introduce themselves and outline their role / why they are on the Committee.</p> <p><b>CLC Members</b></p> <ul style="list-style-type: none"><li>• Pat Greenshields - landowner, wants to be a part of this project and Committee.</li><li>• Carol Lawrence - Councillor from West Grey Municipality, representing Bev Cutting as she was unable to attend this meeting.</li><li>• Stan Rowbotham - landowner in the project, to provide any input that he can to help the Committee.</li><li>• James Clements - landowner in the 2<sup>nd</sup> concession, to get a better understanding of everything that is going on and to help fine tweak the process as it goes along.</li></ul> <p><b>NextEra / Borea Construction Team</b></p> <ul style="list-style-type: none"><li>• Adam Rickel - Project Director, Development for the East Durham project.</li><li>• Louis Gervais - Site Manager for Borea Construction, is the general contractor for the East Durham project.</li><li>• Nancy O’Neill - Environmental Permitting and Licensing Manager for NextEra Canada.</li><li>• Ray Dewaepenaere, Operations Manager, representative of the Operations team.</li></ul> <p>Chair outlined that Michael Kelly is part of the committee but wasn’t able to attend. <b>Note:</b> Michael Kelly has since rescinded his application.</p>	
<p><b>2. Review of Meeting Agenda, CLC Terms of Reference / Charter (Slides 3-9)</b></p> <p>Chair reviewed the Agenda of the meeting (slide 3).</p> <p>Chair noted that that there is an opportunity for depositions at meetings; while there were none for this meeting, depositions are to be provided within 1 week of the meeting moving forward. Chair reviewed the deposition process outlining the</p>	



<p>Committee’s role to review and approve depositions before the meeting.</p> <p>Chair noted that the meeting was planned to run from 6-8pm. If items are brought up that need further comment these will be placed in the “parking lot” (a database of questions warranting follow-up answers and/or discussion) so NextEra can come back to the committee with these answers.</p> <p><b>Can anything be changed going forward. Has everything that has been proposed been written in stone?</b></p> <p>Chair: This depends on what the topic of conversation is and what aspects you are thinking about. From a Ministry of Environment (MOE) perspective the project has been approved. Items relating to construction are something that we can talk about at this meeting with Committee members providing NextEra with recommendations for consideration.</p> <p><b>Comment: A lot of the information provided is not in lay man’s terms and it would be good to have some common language regarding the information being provided.</b></p> <p>Chair noted that through the CLC conversations it is hoped that the more technical information can be communicated in an accessible way to the Committee members and members of the public.</p> <p>Chair outlined the meeting summary review process: the meeting summary is provided to Committee members within 2 -3 weeks of the meeting; the Committee members will then have 2 weeks to review and comment; the updated Meeting Summary will then be posted online and distributed to Committee members.</p> <p>Chair noted that the Meeting Summary is not intended to be verbatim but rather to be representative of the discussion that was had at the meeting. Information provided via the parking lot will be included in the meeting summary.</p> <p>Chair reviewed the following items:</p> <ul style="list-style-type: none"><li>○ Purpose, objectives and composition of the Committee; explaining that the CLC is a mandate of the REA process (Slides 4&amp;5)</li><li>○ Reinforced that the mandate of the Committee is not to revisit those matters already addressed through the MOE approval process</li><li>○ Reviewed the efforts made to recruit members and the intended membership composition<ul style="list-style-type: none"><li>○ Sent invitations to local municipal and county councils, Aboriginal communities, agricultural organizations, as well as a mail-out to residents who live within 1km of the project study area</li></ul></li><li>○ Confirmed that members were appointed to the Committee</li></ul>	
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<p>change.</p> <p>Chair outlined role of AECOM which is to schedule CLC meetings and ensure that appropriate information is distributed to the Committee as quickly as possible and to make sure that questions get in the hands of the best person to address that question.</p> <p><b>What is the life expectancy of the gravel pit in Cedarville? Will the placement of the turbine impact the life expectancy of the gravel pit?</b></p> <p>Adam R- The gravel pit is a separate project undertaken by the landowner and will not infringe on the property which will be used for the wind project. The land which the turbine is on will be reclaimed back to its former productivity or whatever the landowner wishes. All of the setbacks that have been used (i.e. relating to the gravel pit) have been taken into account for the permitting process. The turbine sites generally take up about 1.5 acres of land (including the access road leading up to the turbine), on average; the turbine sites themselves are about 16 feet in diameter (5 metres) plus about 8 feet (2.5 metres) of gravel road around the turbine base.</p> <p><b>I understood that the time span for the project is 20 years, but on the PowerPoint it says 25-30 years?</b></p> <p>Adam R. - The contract NextEra has with the Ontario Power Authority (OPA) is for 20 years, the life span of a turbine is about 25-30 years. Near the end of the FIT contract with the OPA, NextEra will weigh its options; it could move into the decommissioning phase, sign another power contract, replace the turbines, or sell power into the open market (depending on the viable options available at that time).</p>	<p><b>in the NextEra portion. This correction should be on the signed copies of the Charter.</b></p>
<p><b>3. Present East Durham Wind Energy Center and Discuss Construction Plans (Slide 9-12)</b></p> <p>NextEra (Adam R) reviewed the East Durham project:</p> <ul style="list-style-type: none"><li>○ The Class 4 Wind Facility is being constructed in the Municipality of West Grey, Grey County</li><li>○ The fourteen turbines, each with 80 metre towers and three blades up to 50.5 metres in length, will have a generating capacity of 23-megawatts, capable of generating electricity to power nearly 6,000 homes</li><li>○ The turbines, overhead and underground electrical lines, met tower, electrical substation, transformer substation (to connect to the Hydro One transmission system) required roads and the construction laydown area</li><li>○ The Facility will be built on privately owned land, which can remain in agricultural use</li></ul>	



**What gives you the right to move forward with the turbines?**

Adam R. - NextEra has a Renewable Energy Approval with the province and is in the process of getting the permits needed to build.

**Are you aware that the community does not support the project? I want to make it very clear here, this is not a threat. Whatever your plan is we are stopping it, we will not let this happen. We are not going away; you are not going through with the project.**

(NextEra) Adam R- thanked member for their comments.

NextEra (Adam R) continued to review the project (slide 10).

**Have you taken into consideration the cemetery; have you made adjustments regarding this?**

Adam R- Through the planning for all project facilities NextEra has taken into consideration all the applicable laws and statutes. As part of this process NextEra has taken the cemetery into consideration when placing project infrastructure.

NextEra (Adam R.) continued to outline the Permits and Clearances (slide 10)

Awarded Feed-in-Tariff contract by the Ontario Power Authority	<b>April 2010</b>
Renewable Energy Approval (REA)	<b>Issued January 2014, with terms/conditions</b>
Saugeen Valley Conservation Authority	<b>Issued in June 2014</b>
Municipality of West Grey (building permits)	<b>In process</b>
MTCS sign-off on archaeological studies	<b>Complete</b>

NextEra (Adam R.) reviewed the detailed design process (slide 11).

<b>Road Design</b>	Engineering design is complete; Issue for construction drawings are in progress
<b>Turbine Foundations</b>	Design completed, submitting for building permit
<b>Substation</b>	Engineering design in progress





same as the GE 1.5 model which has been used for about 10 years now in NextEra’s other operations. The life expectancy for the GE 1.6 model is supposed to be longer than the 20 year timeline of the FIT contract.

**Regarding soil testing, what do you compare this soil testing to?**

(Louis) The soil is tested to ensure that the soil is suitable for concrete and if there are any concerns with the soil from a geo-technical perspective. Based on the results of the testing there are no concerns with the soil.

**Comment - Whatever money you have backing you, we have money and backing. We are not backing down. We are going to stand until you leave.**

**Of the 16 turbines that are planned, 14 are going to be built. Which two turbines are not going to be built?**

Adam R- At this point we do not know, until permits are received and we have a better understanding of what NextEra can build. As of right now, turbine 2 and turbine 14 are the alternates. This is said with the understanding that this is a fluid design process.

**Following the cement pouring, how many core samples are done and what company does this testing?**

The third party has not been chosen. NextEra uses CSA standards, and follows the specimen sampling procedures and all the designs provided by third party engineers.

**There needs to be samples done for each core? How many samples are done for each turbine pad?**

NextEra designs to the required specifications. For the next meeting we can get this information and provide it for the Committees review.

More details regarding concrete core sampling procedures were provided after the meeting (see below).

There are two requirements, 1) Standards and 2) Engineer design.

**1. Standards : The minimum requirement is according to standards:  
CSA 23.1.09, item 4.4.6.3.1**

4.4.6.3 Frequency and number of tests

4.4.6.3.1 - Not less than one strength test shall be made for each 100 m<sup>3</sup> (or part thereof) of concrete placed. A minimum of one test is required per day for concrete of a single mix design. When high-performance or high-strength concrete is involved, or where structural requirements are critical, the owner may require a higher frequency of testing, which shall be defined in the contract documents.



**2. Engineer design: East Durham foundation drawing Page S-4 item C12**

B. - The laboratory shall take samples of a minimum of eight (8) cylinders by raft and eight (8) cylinders by base. Additional cylinders may be cast at the discretion of the contractor to evaluate the resistance of the concrete at different ages between 7 to 56 days.

NextEra also has a third party lab that approves the concrete.

**Regarding leakage of cement into soil, how deep are the underground collection lines? I am worried about stray voltage as my kids like to play in the streams nearby.**

Adam R - The collections lines are 1 metre deep, if there is a water crossing we dig 1 metre below the water crossing. Regarding stray voltage concerns, the collection lines are distinctly different than transmission lines which have been known to have stray voltage concerns. The collection lines are encased in polyethylene and are tested before. There are no stray voltage concerns based on the designs we have and the materials we use. In the over 10,000 turbines that NextEra has operated we have never had any issues with underground collections lines and stray voltage.

**Is there any issue with the cold and digging down to 1 metre?**

Adam R - NextEra works in a variety of weather conditions all around North America and we have not run into any problems so far.

**Regarding the bridge by the church, have you obtained permission to attach a wire to this?**

Adam R- Yes, NextEra has permission to attach a wire to that bridge and received approval from the Ontario Energy Board through the statutory Section 41 process.

**What about stray voltage on the 'wire' attached to the bridge?**

Louis- The wire that will be attached to the bridge will be shielded and there will be no issues relating to stray voltage.

NextEra (Adam R) reviewed the typical Construction timeline for a NextEra wind energy project (slide 12).

**Which 14 of the 16 turbines will be built?**

Once NextEra receives all permits the decision will be made at that time. As part of the planning process, NextEra builds flexibility into the turbine placement process in case there are natural heritage features or other considerations that need to be avoided.

**Regarding Grey road 23 and County road 4, will you be moving the lines to the**



<p><b>south of County road 4 to avoid the cemetery?</b> Adam R - There have been no changes to the project infrastructure around this area as NextEra was aware of the cemetery throughout the planning process. As such, NextEra has not made any official changes to the plans. The collector lines are in the Right of Way (ROW) adjacent to the cemetery and should not impact the cemetery. The collection line along County Road 4 is planned for the south side.</p> <p><b>Are you aware of the creek that runs there?</b> Adam R - Yes we are. As part of the permits with the Saugeen Valley Conservation Authority NextEra will follow all guidelines and receive approval before any changes are made. As per regulations, NextEra will bore at least 1 metre under the water at that location.</p> <p><b>What is the wind speed shutdown factor?</b> Ray - 25m/s about 90 km an hour.</p> <p>Chair asked NextEra to explain what the wind speed shutdown factor is.</p> <p>Adam R / Ray D - When the wind blows faster than 90 km an hour the turbine shuts down or goes into a pause mode until the winds drops below 25m/s (the turbine “feathers” at 25m/s).</p> <p><b>Turbines 2 and 14 are alternate sites. Are there reasons for this?</b> Adam R- Yes, NextEra chose these as they made the most sense taking wind speed and other factors are taken into consideration.</p> <p><b>When did turbine 10 change from being an alternate? Why didn’t you notify people about this?</b> Adam R- NextEra notified people about the potential for 16 turbines which continues today. As the project is fluid NextEra has not committed to any of the locations until we have all the permits in place. NextEra did not notify because things are constantly changing as the project progresses.</p> <p><b>Are the turbines fixed directional, is there an area where the winds come from?</b> Adam R - No, the turbines move 360 degrees. The prevailing wind is part of the noise assessment process and assumes the loudest noise in all directions. NextEra will provide more information at the next meeting regarding prevailing wind direction.</p> <p><b>What is the next step after the municipality turns down the road agreements?</b> Adam R - NextEra would re-assess the project at that point.</p> <p>Comment from the public relating to potential impact of turbines on livestock (goats).</p>	<p><b>NextEra to provide more information regarding prevailing wind direction at next CLC meeting.</b></p>
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#### 4. Additional / Future Items for Discussion (slide 13-16)

Chair reviewed Additional items (slide 13)

- **Update on the Environmental Review Tribunal (ERT)**

NextEra (Adam R) outlines that the ERT is a way for the public to voice a concern regarding the REA approval. The ERT looks at the case at hand and acts as a challenge to the REA approval. As mentioned before, the ERT process for the East Durham project is complete.

- **How will residents and landowners' concerns be addressed during construction?**

As part of the REA, NextEra is committed to a complaints resolution plan. NextEra is mandated to contact the Ministry of Environment (MOE) within 48 hours of receiving the complaint. NextEra has a full time person on staff to deal with this and this protocol has been established through other projects in the region.

**Comment - my understanding is that after two years any concerns that you have are not dealt with.**

Nancy -NextEra has a 24 hour complaint line and is here for the life of the project. NextEra is committed to the life of the project and records all complaints which are sent to the MOE.

**What about the reduction of value in real estate? The "Impact study" used a different formula for determining the effect on real estate value. Does this go through the same complaint process?**

Adam R - Yes, this complaint would go through the same process. NextEra has participated in studies regarding real estate values and understands the concern; based on the evidence, NextEra has not seen an overall decrease in housing values relating to wind turbines.

- **Does NextEra foresee any future/additional land requirements?**

At this time NextEra does not foresee any additional land requirements.

- **Potential for community funding/community improvements?**

NextEra is dedicated to being in the community for the life of the project and contributing in a positive way to the community. There is the potential for the Community Vibrancy Fund (CVF) which has been proposed to the municipality. NextEra is open to contributing to any community event or project and being a good member of the community.

**With the carbon footprint from the construction of the project, would NextEra be open to buying a 100 acre woodlot to set aside for protection.**

At this time no, the project will have some carbon footprint associated with the 6-8



month construction phase. This being said, this is a renewable energy project which will provide renewable energy for the next 20 or so years. As well, any trees that are removed resulting from construction activities are replaced at a 2:1 or 3:1 ratio depending on the type of tree being removed.

**Will NextEra be creating a tree fence line to create a channel to increase wind flow in the Project Area?**

Adam R - No, NextEra has no plans to do this. The reasoning being that turbines would not be impacted by the tree rows as the blades are much higher than the tree rows, NextEra has not experienced or tried that before.

**This is a 23 megawatt what? Is this per hour or day?**

Adam R - This is the capacity of the project and measured per hour.

**Is the wind speed different in the day versus the night?**

Adam R - Typically, there is more wind at night.

**Is the noise going to be acceptable at night?**

Nancy - The noise assessment is done for the worst case scenario, which is 40 decibels. This is for the worst case scenario for non-participating landowners.

**Are these levels for this specific project?**

Nancy - Yes, this was for the East Durham project and included all 16 turbines.

Chair asked to clarify what 40 dba equates to?

James Clements - They say that is a whisper beyond 550m.

Adam R - Just for clarity, if one were to measure noise beyond 550m from the turbine and the dba is 43 than NextEra would have to adjust turbine operations until it is compliant (under 40dba).

**What happens if the turbine is installed and it makes more noise than 40dba at 550 metres?**

Ray - Measures would be taken to reduce the dba level. This includes reducing the speed the turbines operate at or changing the angles which the turbines operate.

**Does NextEra go to each house and test for noise levels?**

Nancy -NextEra has to monitor for 3 years after the establishment of the turbines.

**What is the dbC (inaudible noise levels) for this area, what is the level from receptors?**

Nancy - NextEra is required to meet 40 dbA levels and not the dbC levels, so there is no required dbC level for this project.



**If someone does complain about noise, do you shut down the turbine and then investigate or keep the turbine running while you investigate?**

Ray - There are two tests which need to be conducted. There is the emission test and NextEra has to conduct this for every turbine. The emission test occurs for specific sites for a worst case scenario. Receptors are set up around the project study area to get a sense of the worst case scenario for noise.

**If the noise from the turbine is driving me crazy is there a way I can ask for the turbine to be shut down for 5 hours to provide a break?**

Ray - NextEra would go out to the turbine and check to see if there is a problem. If there is no problem identified than the turbine would not be shut down.

**How long would a person have to wait for a response (to conduct the tests)?**

Ray - NextEra aims to respond within 24 hours to each complaint.

**When NextEra was talking about the 20 year FIT contract, what was meant by the open energy market?**

Adam R - Right now NextEra is in operation under the FIT contract. After 20 years we are not sure where the energy market will be. In 20 years private companies may be able to sell energy into the free market. At this time energy producers need a FIT contract to sell energy back to the grid. This is a future projection of what may be a possibility in 20 years' time.

**What happens when a turbine is struck by lightning?**

Ray - The towers are grounded throughout the project, and if a tower does get struck by lightning it will be directed to the ground. Also, there is a lightning detection system in place and NextEra is notified when a lightning strike occurs.

Chair reviewed Tentative Items for Discussion at Future CLC Meetings (slide 14).

**CLC Meeting #2**

- Update on Project Construction and Installation
- Operations and Maintenance
- Other

**CLC Meeting #3**

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

**CLC Meeting #4**

- Update on Operations and Maintenance
- Monitoring



<ul style="list-style-type: none"> <li>• Mitigation Measures</li> <li>• Other</li> </ul> <p>Chair outlined the timing for future meetings and that meetings will be intended to align with project activities.</p> <p><b>Can you address the issues relating to notifications for the meeting?</b>        Chair reviewed that the publication deadline was missed by 6 hours and as a result had to publish in the following week’s paper which meant that there was limited time for the deposition process. This will be addressed in meetings going forward.</p> <p>Moving forward AECOM will ensure that notifications will be published 3 weeks in advance of the meeting and that anybody who has placed their name on the mailing list will be sent a notification for future meetings.</p> <p><b>Comment - Member of the public thanks the Chair for allowing questions from members of the public to be addressed at the meeting.</b></p>	
<p><b>Meeting Wrap Up</b></p> <p><b>What is the timeline for next meeting?</b>        Chair - This depends on what is happening with the project. We want to ensure that there is content to share and discuss at the meeting so it is productive.</p> <p><b>Do you have a table top model of the project, which shows how the project is moving along so people can see how the project is progressing?</b>        Adam R - NextEra can provide ortho photos for the next meeting so people can review the project in more detail.</p> <p>Chair adjourned meeting.</p>	<p><b>NextEra to provide progression map of the project.</b></p>

PARKING LOT

<p>Parking Lot Topic Action Item</p>
<ul style="list-style-type: none"> <li>• NextEra to provide Ortho Map for Meeting #2 (Noise Impact Assessment Map)</li> </ul>
<ul style="list-style-type: none"> <li>• AECOM to update Charter wording to include “Consideration” in the NextEra portion. This correction should be on the signed copies of the Charter.</li> </ul>
<ul style="list-style-type: none"> <li>• NextEra to provide more information regarding prevailing wind direction at next CLC</li> </ul>



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meeting.

- NextEra to provide progression map of the project.