

Meeting Summary – Jericho Wind Energy Centre Community Liaison Committee

Attn.: CLC members, NextEra Staff & Consultants

Subject: Jericho Wind Energy Centre, Community Liaison Committee (CLC): Meeting No. 4

March 9, 2016 6:00 pm to 8:00 pm

The Legacy Recreation Centre

16 Allen Street, Thedford

Present:

CLC Members

- Mary Lynn Metras, Marina Plain

NextEra Energy Canada

- Amanda Gittens, Business Management; Peter Miller, Wind Site Manager; Derek Dudek, Senior PGD Technical Services Specialist; Heidi Lamarche, Construction

NRSI

- Christy Humphrey, Terrestrial & Wetland Biologist

AECOM

- Adam Wright, CLC Chair; Tiffany Lobb

Absent:

- John Couwenberg, Dean Jacobs, John Moons, Jamie Tabor, Eddy Van Engelen, Carol Clay

Item Discussed	Action
<p>1. Welcome and Introductions</p> <p>Adam Wright welcomed the Community Liaison Committee (CLC) members and members of the public to the 4th CLC meeting for the Jericho Wind Energy Centre.</p> <p>Adam introduced himself as the CLC chair and introduced Tiffany Lobb as the CLC Meeting Minutes recorder for the evening. The Chair then invited CLC members and NextEra representatives to introduce themselves and to outline their role.</p> <p>CLC Members</p> <ul style="list-style-type: none"> • Marina Plain – Aamjiwnaang First Nation, Environment Committee • Mary Lynn Metras – Local Resident <p>NextEra</p> <ul style="list-style-type: none"> • Derek Dudek – Senior PGD Technical Services Specialist • Peter Miller – Wind Site Manager • Amanda Gittens – Business Management • Heidi Lamarche – Construction <p>NRSI</p> <ul style="list-style-type: none"> • Christy Humphrey – Terrestrial and Wetland Biologist 	
<p>2. Review of Meeting Agenda, Introductions, CLC Meeting #3 Review</p> <p>The Chair then reviewed the Agenda for the CLC meeting (slide 3).</p> <p>Agenda</p> <ol style="list-style-type: none"> 1. Introductions 2. Recap of CLC Meeting #3 <ul style="list-style-type: none"> – Purpose of the CLC – Overview of the Project – Post-Construction Activities – Operations and Maintenance Update and Activities – Public Attendance and Depositions – Meeting Summary 3. Parking Lot Items and Questions / Comments Raised Since the Third CLC Meeting 4. Update on Construction and Remediation Efforts 5. Update from the Operations Team 	

<p>6. Delegations – none received 7. Public Question and Answer</p> <p>Chair reminded CLC members are encouraged to ask questions at any time throughout the meeting, should they arise. He then provided an overview of the Jericho Wind Energy centre (slide 4).</p> <p>Overview of the Jericho Wind Energy Centre</p> <ul style="list-style-type: none"> • The Class 4 Wind Facility is operating in the Municipality of Lambton Shores and the Township of Warwick, in Lambton County, Ontario and in the Municipality of North Middlesex, in Middlesex County. • The ninety-two turbines, each with 80 metre (m) towers and three blades up to 50.5 m in length, have a generating capacity of 149-megawatts, capable of generating electricity to power nearly 37,500 homes. • The project consists of wind turbines, overhead and underground electrical lines, two met towers, electrical substation, transformer substation (to connect to the Hydro One transmission system) and required roads. • The Facility, with the exception of some electrical lines, was built on privately owned land, which remains in agricultural use. <p>After this the Chair provided a brief recap of the 3rd CLC meeting which occurred on November 17, 2015 (slide 5).</p> <p>Meeting Summary for our 3rd CLC Meeting:</p> <ul style="list-style-type: none"> • Draft minutes were prepared by AECOM and circulated to the CLC on Dec. 17, 2015 • Members were asked to advise AECOM of any errors, omissions or changes by Jan. 4, 2016 • All recommended comments/changes were incorporated and the minutes were posted on NextEra’s publically accessible website the week of Jan. 11, 2016 • CLC members were also emailed the final minutes on Jan. 8, 2016 	
<p>3. Parking Lot Items and Questions/ Comments Raised Since the Third CLC Meeting</p> <p>Activities and Questions / Comments Raised Since CLC #3 (slide 6)</p> <p>Chair reminded the CLC members that there were no parking lot items added to the list at the 3rd CLC meeting in November, 2015. The Chair then asked if either CLC member had a comment or question at this point.</p> <p>None received.</p>	

Recap CLC Meeting #3 – Local Labour

The Chair then discussed construction statistics and project economic impact (slide 7).

Construction Stats

- General Contractor is Borea Construction Canada
- Many **Southwestern Ontario Companies** used (subcontractors and suppliers) on the Jericho project.
- There is at least **\$6 million** in contracts with subcontractors and suppliers in the southwestern Ontario region. Services ranging from materials, equipment, utilities, labour, housing, and subcontractors, were provided by nearly 30 Lambton and Middlesex County businesses.
- Peak volume of individuals on site including subcontractors is approximately 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.

Project Economic Impact

Construction Jobs: Approx. 200

Full Time Operations Jobs: 10

Capital Expenditures: Over \$400 Million

Corporate Income Tax: Over \$200 Million*

Property Taxes: About \$20 Million*

Landowner Payments: About \$30 Million*

*Estimated over first 20 years of the project.

Chair then requested Peter Miller (PM) to discuss performance of the Jericho Wind Energy Centre (slide 7).

Performance

- Performance is exceeding expectations – Equivalent Forced Outage Rate Year-to-Date is .63%
- Excellent safety performance – 0 lost-time injuries

Why are all the turbines off at the same time?

PM – The turbines get turned off at the same time due to curtailment issues controlled by the Independent Electricity System Operator (IESO). We have no control over decisions made by IESO. We only shut all turbines off on a day that is not particularly windy for the shortest amount of time possible to do any required

<p>maintenance.</p> <p>Chair asked if there were any further questions regarding curtailment.</p> <p>None received.</p>	
<p>4. Update on Construction and Remediation Efforts</p> <p>Chair asked Heidi Lamarche (HL) to discuss the updates on construction and remediation efforts (slide 8).</p> <p>Construction Clean up, Modifications and Road Repairs: largely complete</p> <ul style="list-style-type: none"> • Jericho WEC is complete with its physical restoration work but has an agreement in place with Lambton Shores and Warwick to pay for the restoration of key roads that were used during construction. • While we do not have a Road Use Agreement with Lambton County, we are continuing to restore county roads. • Additionally, we have hired an engineering firm to inspect all ditches or rights of way (ROW) for any outstanding reclaim items due to underground collection installation and all mitigation measures installed along the transmission line. <p>Reclamation: Summer to Fall 2015</p> <ul style="list-style-type: none"> • Stripped soil was replaced and re-contoured in the construction areas and disturbed areas reseeded during appropriate conditions for germination (as seasonality allows). <p>Have all the drainage issues been addressed?</p> <p>HL – There are still some outstanding issues that are currently being addressed. If a landowner has any outstanding issues they can contact CanAcre who will then get in touch with NextEra to ensure all identified issues are addressed.</p> <p>Is there a reason the tiling issues have not been taken care of yet? I was reassured at the last meeting that all tiling issues would be fixed, is there a way I can get a paper copy of the minutes from the last meeting so I can have a record of that conversation?</p> <p>Chair – Yes, I have a copy of the meeting minutes from CLC#3 on hand that I can provide you with at the end of today’s meeting.</p> <p>PM – We are here to make sure everything is put back the way it needs to be and we will continue to work until conditions are the same as pre-construction.</p> <p>Our main concern is that all activities will still take place even if the budget has</p>	

<p>already been spent. PM – We are committed to taking care of all post-construction issues.</p>	
<p>5. Update from the Operations Team</p> <p>Chair asked Derek Dudek (DD) to discuss the complaint resolution process (slides 9-10).</p> <p>Operations – Complaint Resolution</p> <ul style="list-style-type: none"> • 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). • NextEra will provide the local MOECC district office with a written record of the complaint within 8 business days of the complaint. • 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. • Upon resolution of complaint, verbal and written correspondence will be provided to complainant as soon as possible. • Information requests and complaints about the local operations and maintenance can be addressed to: <p style="margin-left: 40px;"> 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: Jericho.wind@nexteraenergy.com Website: www.NextEraEnergyCanada.com </p> <ul style="list-style-type: none"> • Any other general inquiries to NextEra Energy Canada, LP: 416-364-9714 - Main 877-257-7330 - Toll Free 	

Chair asked Derek D. to discuss the Environmental Effects Monitoring Plan and Noise mitigation measures (slide 11).

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 is partly completed. Results will be reported to the MOECC in late spring 2016.

Has NextEra had any noise complaints from the community?

DD – Jericho WEC has had a few noise complaints, specifically at the beginning of operations but overall we have not had very many.

Chair – Is it correct that there is a break-in period for the first 500 hours of operations of the turbines?

DD – It’s more a matter of having plenty of time to ensure the acoustic audits can be conducted in proper weather and capture the minimum number of data points. These audits need to be complete within 12 and 18 months of start-up, respectively, and submitted to the Ministry of the Environment and Climate Change (MOECC) for approval.

Chair asks if there are any further questions regarding noise mitigation.

None received.

Chair asked Christy Humphrey (CH) to discuss bird and bat, species at risk and natural heritage monitoring (slides 12-13).

Bird and Bat Post-Construction Monitoring

- Monitoring will be conducted in accordance with requirements of the REA and Ministry of Natural Resources and Forestry (MNRF) Guidelines
- Monitoring began May 1, 2015
- Turbine searches occurred twice weekly from May 1st through October 31st, and raptor surveys continued 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 end of February following each year of monitoring
- 3 years of monitoring are required

How do the results from mortality monitoring look so far?

CH – The province has specific thresholds for mortalities. If the mortality levels are over the thresholds, there will be subsequent actions taken. The bird and bat mortality levels were under the thresholds provided but the raptor mortalities have been a bit higher than expected. Therefore, actions will be taken regarding the raptor mortality levels.

What will be done about the raptor mortality levels?

CH – One of the requirements is to conduct further, in-depth surveys to capture any issues with raptors. Depending on the results of those surveys, further actions may be required.

Can you provide the mortality threshold numbers?

CH – Yes. The bat mortality threshold is 10 bats per turbine, per year. The bird mortality threshold is 14 birds per turbine, per year. The raptor threshold is 0.2 raptors per turbine, per year.

Chair asked Christy H. to continue discussing monitoring processes.

Species-At-Risk (SAR) Monitoring

- Species at Risk mortality monitoring began in April 2015
- Monitoring has been conducted in accordance with MNRF requirements
- All 92 turbines were searched monthly between April and November
- Annual report completed
- Species at Risk monitoring continues for the life of the project

Natural Heritage Monitoring

- Post construction monitoring of certain wildlife habitats is required by the REA
- Amphibian Breeding Monitoring

- Bat maternity colony habitat
- Habitat monitoring began in 2015, in accordance with the requirements of the REA
- 3 years of habitat monitoring is required
- Annual reports will be submitted to MNRF by March 31 of each year of monitoring

Chair – What do you mean by amphibian breeding habitat?

CH – This would include woodland and forested areas with pools of water. Around this time of year you will be able to hear the frogs calling out to breed and lay their eggs in the pools. This is the habitat NRSI would monitor.

Are the action steps similar for amphibian breeding habitat monitoring and bird and bat monitoring?

CH – There are no set thresholds for habitat monitoring. The MNRF does identify how many species make the habitat significant. For example, these habitats had a large amount of species before construction so in these cases, NRSI would monitor post-construction to make sure the habitat levels of abundance and diversity stay the same. The monitoring takes place over a 3 year time period so that NRSI can get an accurate depiction of habitat.

Are these mortality thresholds the same for each wind project?

CH – For bats, the mortality levels are averaged over the whole project. For birds, the mortality levels are also averaged over the whole project but there is something called significant mortality events. If on one visit, NRSI found 10 bird mortalities near one turbine, this would be considered a significant mortality event and actions would have to be taken. NRSI has never seen significant mortality events in any wind farm project across the province of Ontario.

Chair asked if there were any further questions regarding monitoring processes.

None received.

Chair then asked Amanda Gittens (AG) to discuss retirement and decommissioning processes (slide 14).

Retirement and Decommissioning

Lifespan

- The average lifespan of a turbine is 25 years.
- At the end of its lifecycle, a wind facility can either be decommissioned or repowered.

<p>Repowering</p> <ul style="list-style-type: none"> • If the economics are viable, a facility may be repowered with new technology. <p>Decommissioning</p> <ul style="list-style-type: none"> • The process and impacts are similar to the construction phase, but in reverse sequence <p>Decommissioned Equipment Left in Place:</p> <ul style="list-style-type: none"> • Underground electrical lines will be cut and the ends buried 1m below grade. These lines are inert and will have no negative impacts on the environment, soil and cultivation practices. • Foundations will be left in place. The top 1 m will be removed and replaced with clean fill and stockpiled topsoil – to allow for cultivation of agricultural lands. <p>Recycling</p> <ul style="list-style-type: none"> • All materials will be recycled, where possible, or disposed offsite at an approved and appropriate facility. <p>Can parts of the turbines be left in place for another wind project? DD – Conceivably yes, but it would be dealt with on a case by case basis.</p> <p>Does NextEra have someone to look after recycling practices? DD – Yes. There is a whole group whose job is to look at what to do with each of the components of NextEra’s retired facilities.</p> <p>If you rebuild the turbine, could you reuse the same blades? PM – If we were to rebuild the turbines, there would probably be newer and better blade technology available by that time.</p> <p>DD – I think there are a lot of portions of the wind energy centre (WEC) such as electrical infrastructure that would last longer than the turbines themselves..</p> <p>PM – The wind energy technologies continue to improve on a yearly basis. Think about your cell phone 5 years ago compared to today, it’s not even the same machine. The same principal applies to wind energy technology.</p>	
<p>6. Delegations</p> <p>No delegations were submitted for this meeting.</p>	
<p>7. Public Question and Answer</p>	

<p>Regarding property taxes, when is NextEra going to pay the costs upfront instead of the landowner having to cover the cost and sending in receipts to be reimbursed. AG – We are working on this matter right now. I don't have a definitive answer for you today but NextEra can provide an update in the meeting minutes.</p> <p>DD – We would love to handle property taxes upfront without having to involve the landowner. It would be an easier process for everyone.</p> <p>PM – During your local election cycle definitely bring this issue up with your local council. One bill would be much easier for us to process instead of multiple bills from multiple property owners and would also make it much easier on property owners.</p> <p>Why is it that sometimes when it's really windy outside many Jericho turbines are completely still but turbines from other projects are continuously moving? PM – This is due to curtailment. Cedar Point has the turbines that are typically running all the time while Jericho wind turbines are not. This is because Cedar Point has not yet been affected by any curtailment requirements but will soon be grouped into the same category as all other wind projects and will be affected by curtailment requirements in the near future.</p> <p>AG – Curtailment directions come from the Independent Electricity System Operator (IESO). They determine whether or not the turbines will be turned on or off.</p> <p>PM – The interesting thing about wind energy is that there is the flexibility to turn the wind turbines on and off. When it is not needed, it can be turned off which is one of the more attractive aspects of renewable energy.</p> <p>How does shutting off the turbines affect landowner compensation? AG – I would have to take a look at your specific agreement because all landowner agreements are confidential. I can definitely discuss this with you privately when this meeting is over.</p> <p>Are these curtailment shutdowns related to Hydro One? PM – Hydro One owns the hydro wire. IESO controls where all the electricity is coming from, through those wires, to get to all the homes and businesses.</p> <p>Will NextEra call another meeting for Jericho WEC later down the road? DD – We do not currently plan to host another CLC meeting for the Jericho WEC but if the need arises in the future we are open to discussion about finding a way to communicate with the public.</p> <p>PM – The doors of the operations office are always open and I am trying to be as accessible as possible to the public and landowners. If anyone has any questions or</p>	<p>We will continue to work with your municipality to make turbine property tax payments directly.</p>
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<p>concerns, please feel free to contact me directly.</p>	
<p>8. Thank You!</p> <p>NextEra Energy Canada and AECOM would like to sincerely thank all the CLC members for donating their time over the past two years and for their valuable input and interest in the project.</p> <p>The Chair thanked the members of the public and the CLC members for attending and then adjourned the meeting.</p>	

Parking Lot

Parking Lot Topic	Response / Action
<p>When is NextEra going to pay the property tax costs upfront instead of the landowner having to cover the cost and sending in receipts to be reimbursed?</p>	<p>NextEra will continue to work with your municipality to make turbine property tax payments directly.</p>