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Guelph, ON, Canada N1H 7T8
Tel: 519 763 7783 Fax: 519 763 1668



Minutes – Goshen Wind Energy Centre: Community Liaison Committee

Attn.: CLC members, NextEra Staff

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

November 18, 2015 6:00pm – 8:00pm

South Huron Recreation Centre
94 Victoria Street East
Exeter, Ontario

Present:

CLC Members

- Cathy Seip; Allan P. Barnes; Stephen Boles; Gary Eagleson; James E. Dietrich; Pat O'Rourke; Bill Dowson; Hubert Haccius; Frank Palen; Arnold Kester

NextEra Energy Canada

- Doug McIntosh, Wind Regional General Manager; Catie Mitchell, Business Manager; Michael Blackmore, Wind Site Operations Manager; Jeff Damen, Construction Manager; Derek Dudek, Senior PGD Technical Services Specialist

Consultants and Sub-trades

- Christy Humphrey, NRSI
- Scott Langstaff, Borea Construction

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- Adam Wright; Tiffany Lobb

Absent:

- Chuck Ford; Stephen Finkbeiner; Aaron Neeb



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<p>1. Welcome and Introductions</p> <p>Adam Wright (CLC Chair) welcomed the CLC to the 3rd CLC meeting for the Goshen Wind Energy Centre (WEC).</p> <p>The Chair then introduced Tiffany Lobb as the CLC Meeting Minutes recorder for the evening and reminded committee members to feel free to fill out the comment cards on the table and submit them at the end of the meeting. The Chair also informed committee members of the site tour that took place at 4:30 pm where attendees were able to tour the Operations and Maintenance building as well as visit a turbine and take a look inside.</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 #2 <ul style="list-style-type: none"> – Purpose of the CLC – Overview of the Project – Public Attendance and Depositions – Requests for Additional Information – Minutes (Parking Lot Items) 3. Activities and Questions/ Comments Raised Since the Second CLC Meeting 4. Status of Post-Construction Activities 5. Update from Operations and Maintenance Team 6. Discussion of Monitoring and Mitigation Measures 7. Retirement and Decommissioning Process 8. Question and Answer Period (15 minutes) 9. Tentative Items for Discussion at Future CLC Meeting <p>The Chair then reviewed the role and function of the Parking Lot as a way to table items that we cannot fully comment on at the meeting. Documenting these items ensures that they are addressed at a later date.</p> <p>Chair noted that the minutes will be received by the CLC members within 2 weeks of the meeting and they will have two weeks to comment on them. After that time, they will be updated with any comments received and posted on the Project website.</p>	



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<p>2. Recap of the CLC Meeting #2</p> <p>Purpose of the CLC:</p> <ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> – Construction and installation – Use and operation – Maintenance – Retirement of the Facility <p>Project Overview:</p> <ul style="list-style-type: none"> • Class 4 Wind Facility, in the Municipalities of Bluewater and South Huron in Huron County • 63 turbines, with 80 metre towers and 50.5 metre blades • A generating capacity of 102 MWs • Status of studies and approvals • Outline of construction process <p>Public Attendance and Depositions:</p> <ul style="list-style-type: none"> • Local residents in attendance • Deposition from Christy Hempel <p>Meeting Summary for our 2nd CLC Meeting:</p> <ul style="list-style-type: none"> • Draft minutes were prepared by AECOM and circulated to the CLC on May 7th, 2015 • Members were asked to advise AECOM of any errors, omissions or changes by May 21st, 2015 • All recommended comments/changes were incorporated and the minutes were posted on NextEra’s publically accessible website on May 22nd, 2015 • CLC members were also emailed the final minutes on May 22nd, 2015 <p>Chair enquired if there are any opportunities for improvement regarding when CLC members should receive the summary of the meeting? CLC members agreed that two weeks was acceptable.</p> <p>The Chair then outlined the outstanding Parking Lot questions from CLC meeting #2.</p>	



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<p>Parking Lot Topic #1 Update construction statistics. <i>Response / Action</i> Chair noted the updated construction figures, etc. are discussed in the upcoming presentation slides.</p> <p>Parking Lot Topic #2 Provide projected economic impact breakdown for South Huron before taxes to the public. <i>Response / Action</i> Derek Dudek, NextEra (DD) – The Municipality of South Huron will receive about \$980,000 in property taxes over the next 20 years and the Municipality of Bluewater will receive about \$190,000. The education portion of the property tax will be about \$2 million.</p> <p>Parking Lot Topic #3 Additional information on lighting requirements. <i>Response / Action</i> NextEra understands there are community concerns regarding the visual impact of the red navigation lights. Turbine marking and lighting requirements are set out by Transport Canada as a necessary measure to provide guidance to pilots during night time operations. The Goshen Wind Energy Centre is in compliance with Transport Canada’s mandatory standards for aviation safety.</p> <p>NextEra is aware of various other turbine lighting options and is investigating potential additional mitigation options including shades and aircraft activated radar.</p> <p>As I understand Northland Power will installing the lighting that will be activated by the radar from airplanes. This type of lighting must meet Transport Canada requirements as well, correct? DD - The Chatham-Kent project was granted this lighting on a test basis. This is one of the items that NextEra has been looking at, but there are some concerns including liability and how the system would work with smaller aircraft not necessarily equipped with transponders that interact with the system</p> <p>Were the red flashing lights strictly a cost factor when deciding what option to go with? DD – A red flashing light is standard for wind energy projects as well as other tall towers across North America.</p>	<p>NextEra to provide update on turbine red flashing light issue for next meeting</p>



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<p>Comment - I was on the Ministry of Transportation’s website a few days ago and was looking for the requirement to have the red flashing lights and I couldn’t find it anywhere. The only requirement for red flashing lights were that you had to have one red flashing light per certain amount of turbines but it didn’t specify how long they should flash. I think every three seconds is overkill.</p> <p>Comment – I eventually found the requirements for red flashing lights on the U.S. Federal Aviation Administration (FAA) website.</p> <p>Doug McIntosh, NextEra (DM) – It depends on many different variables. The requirement from Transport Canada is to install the lights but NextEra also has to make sure the airmen are safe. No option is off the table at this point for what NextEra can do to solve the disturbance of the red flashing lights.</p> <p>DD – There are different options that NextEra is researching. For example, some lights have the technology to operate differently under different weather conditions.</p> <p>DM – The current lights are bright to ensure that even if the visibility is bad, the lighting still meets the requirements set forth by Transport Canada.</p> <p>Chair confirmed that NextEra will provide an update on lighting options for the next CLC meeting.</p> <p>Parking Lot Topic #4 Is there an emergency response plan in place? <i>Response / Action</i> Yes, there is an emergency action plan and it has been shared with the various fire and emergency response organizations in the region.</p> <p>An Emergency Response and Communication Plan (the Plan) for the Goshen Wind Energy Centre was prepared in accordance with the requirements of O. Reg. 359/09. This plan can be found in Section 5 of the Design and Operations Report is in project website: http://nexteraenergycanada.com/pdf/goshen/Goshen_D&O_Rpt_Final_Part2.pdf</p> <p>This is the emergency action plan that was submitted to obtain the permit to construct, operate and decommission the Goshen WEC.</p> <p>DM – NextEra has met with many of the fire chiefs fairly regularly to make sure everyone is comfortable with the current emergency processes. As a note,</p>	



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<p>NextEra’s Emergency Response Plan is actually a living document. This means that it can be updated at any time as necessary.</p> <p>Chair asked if there were any other questions. None received.</p>	
<p>3. Activities and Questions/Comments raised since the second CLC meeting</p> <p>Chair invited Catie Mitchell (CM) to discuss Local Labour (slide 8).</p> <p>Construction Stats</p> <ul style="list-style-type: none"> • General Contractor is Borea Construction Canada • At least 16 Huron County companies used (subcontractors and suppliers) on the Goshen project. • There were nearly \$4M in contracts with subcontractors and suppliers within Huron County. • Peak volume of individuals on site including subcontractors was around 250. • 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. <p>Projected Economic Impact</p> <p>Construction Jobs: 250 at peak Full Time Operations Jobs: 8 - 10 Capital Expenditures: \$275 Million Property Tax: \$6.9 Million* Landowner Payments: \$29 Million*</p> <p>*Estimated over first 20 years of the project.</p> <p>What is left of the 20 years for the Goshen project? CM - The commercial operations start date of the 20 years for the Goshen project was January 28, 2015, meaning the contract expires January 27, 2035. The 20-year contract period for the Bluewater Wind Energy Centre started July 2014.</p>	
<p>4. Status of post-construction activities</p> <p>Chair invited Jeff Damen (JD) to discuss the status of post-construction activities (slide 9).</p> <p>Construction Clean up, Modifications and Road Repairs: largely complete</p>	



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<ul style="list-style-type: none"> NextEra is complete with its physical restoration work but has an agreement in place with Huron County to pay for the restoration of key roads that were used during construction. <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>JD – Borea Construction is not done working so if you have concerns please let them or NextEra know. Culverts need to be installed here and there but other than that things are in pretty good shape.</p> <p>Chair asked who the point of contact would be for landowners.</p> <p>JD – Landowners can contact Scott Langstaff or myself (Jeff Damen) if they have issues. We really want to get the problems resolved. CanACRE should have reached out to all of the landowners by now to find out if there are any problems. Marty (Martin Becker) would be the key CanACRE representative. If landowners cannot get ahold of Marty, please contact Jeff Damen from NextEra or Scott Langstaff from Borea.</p> <p>As far as access roads go, is there planned summer maintenance on them? DM – Yes, NextEra will maintain the access roads throughout the summer.</p> <p>JD – As a note, Borea has not handed everything over to the operations team as of yet because everything is not cleaned up yet. It is going to be a perfect project by the time it is handed over to the NextEra Operations and Maintenance team.</p>	
<p>5. Update from Operations and Maintenance Team</p> <p>Chair asked Doug M. to discuss updates from the operations and maintenance team (slides 10-11).</p> <p>Operations</p> <ul style="list-style-type: none"> 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 	

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<p>accordance with manufacturer requirements.</p> <ul style="list-style-type: none"> • 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. <p>Wind Energy Centre Reached Commercial Operation: 2014</p> <ul style="list-style-type: none"> • Operations and Maintenance building located in Zurich • Over 210,000 megawatt hours of wind energy has been produced since commercial operation. The average home uses approximately 1 megawatt (1 million watts) of energy each month. • The facility has been operating extremely well with an Availability Factor > 97%. • Goshen Wind employs 8 Full Time employees as well as more than a dozen shared specialists in Ontario. • Operations staff has completed the required 500 hour “Break In” maintenance on all turbines and the scheduled minor maintenance is nearly complete with just seven towers remaining. <p>Chair asked Doug M. to provide more details regarding the availability factor.</p> <p>DM – The industry standard is called an equivalent forced outage rate which means the percent of time the turbine is not prepared to catch wind. Whenever you see one of the NextEra trucks at the turbine, it means the turbine is not available to catch the wind, creating a loss in availability. Maintenance and substation outages fall into the category of availability loss. The industry standard to track the availability factor is to divide the time forced off by the period hours, resulting in the equivalent availability loss factor.</p> <p>We can relate it to fuel efficiency or gas mileage to better understand. For example: how well did we turn the fuel – wind - into megawatts (MW) – energy.</p>	



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<p>Therefore, more than 97% of the time, the turbines are ready and available to catch the wind, meaning that only 3% of the time there is an availability loss.</p> <p>Why don't all the wind turbines turn at the same time? Some turbines are running and some are not.</p> <p>DM – The wind speed has to be greater than 3.5 metres (m) per second for the turbines to attempt to run. Sometimes the wind speed could be right at that cut level (3.5 m per second) allowing for some turbines to start, but not all. When NextEra is working on specific turbines, they will not be turning because we are performing maintenance duties. Also, to safely complete tiling, NextEra has to pause some turbines.</p> <p>Does curtailment affect which turbines are running and which are not?</p> <p>DM – Yes. Turbines can be curtailed in two ways:</p> <ol style="list-style-type: none"> 1. A Megawatt (MW) limit across the site – In this case, all turbines slow down and produce less power, or are all shut off if the site is curtailed to zero. 2. Specific turbines can be curtailed, for instance due to seasonal timing of bird/bat migrations <p>CM – The Independent Electricity System Operator (IESO) will send NextEra signals of when and how much to curtail. Hydro One will also take outages on their transmission lines that NextEra turbines are sending power to; therefore; NextEra will have to shut off the turbines while Hydro One does maintenance work.</p> <p>Does NextEra get paid when the turbines are curtailed?</p> <p>CM – NextEra's power purchase agreement has a provision for after a certain amount of MW-hours of curtailment, meaning NextEra has lost a certain amount of energy due to curtailment; there is a trigger where we will get paid for curtailment losses above a certain level. There is an annual trigger and also a trigger for the life of the project, so when the annual or lifetime curtailment limit is reached, the remaining curtailment is reimbursable. Currently, the Goshen Wind Energy Centre has not reached the annual or lifetime trigger.</p> <p>So the other factor is efficiency based on the 1.6 MW capacity level. Now in the 11th month of operation, what is the net capacity factor?</p> <p>CM – The net capacity factor is probably between 35-45% on average for the year. The Goshen Wind Energy Centre has been performing to the level NextEra expected. We have either been meeting or exceeding our predicted level of</p>	

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<p>efficiency thus far.</p> <p>I follow the efficiencies on the IESO site and I think the Goshen Wind Energy Centre is the best site out of all of them.</p> <p>CM – Yes, the Goshen Wind Energy Centre is performing very well.</p> <p>What website are we referring to?</p> <p>DD – The IESO website. http://www.ieso.ca/</p> <p>Chair suggested including the IESO website link in the meeting minutes.</p> <p>Chair then asked Doug M. to discuss vortex generator concerns (slide 12).</p> <p>Update on Operations – Vortex Generator Concerns</p> <ul style="list-style-type: none"> • At NextEra Energy Canada, the safety of our operations, for both our employees and the communities in which we operate, is paramount. • With that in mind, and out of an abundance of caution, we temporarily shut down certain turbines in Ontario, particularly those near roadways or other public access areas, due to a potential problem that we identified with a small thin plastic attachment on the turbine blades themselves that could have separated while in operation. • After removing this item from the blades, we restarted the turbines. • No injuries or property damage occurred as a result of this situation and we are working aggressively to develop a long term solution. Importantly, we communicated with the affected landowners, sharing with them the actions we’ve taken, and reinforced our commitment to the safe operation of our wind fleet. <p>DM – At the Goshen Wind Energy Centre, all 63 turbines have had vortex generators removed from every blade.</p> <p>What will this do for the blades?</p> <p>DM – Vortex generators were created by General Electric (GE) to increase the efficiency of the turbines by a small amount. NextEra is working through the issue with GE to come up with a long term solution. The steps that NextEra decided to take were to remove all of the vortex generators until a permanent solution is found.</p> <p>What do the vortex generators look like?</p> <p>DM – On the flat underside of the each blade, the vortex generators are near the root and look like little fins.</p>	



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<p>Is this something that ran along the whole edge of the blade? DM – No, the vortex generators are attached to the top third of each blade and there were fourteen of them on each blade. NextEra had 16 crews removing them from every blade.</p> <p>CM – If you drive by the turbines you will be able to see a black strip on the blades. This is the adhesive where the vortex generators used to be.</p> <p>I know the percentage of efficiency you mentioned is very small. Will each landowner have a profit share percentage each year? If GE screwed up, there should be some reprimand because every component of a wind turbine should meet a certain standard / safety code. The glue was obviously a detrimental factor that is affecting NextEra and possibly the landowners that have turbines on their properties. DM –This is up to the highest level of GE and NextEra, who are working on a long term solution. NextEra wants an answer and solution to this problem.</p> <p>Is Goshen the first site that had issues with the vortex generators? DM – No, Goshen was not the only site with this issue. NextEra decided to remove the vortex generators from all of our GE turbines in Ontario out of an abundance of caution.</p> <p>How many actually fell off? DM – Some turbines had eight (8) to ten (10) missing and some had two (2) that had fallen off. The number varied between areas. Basically, it was a concern so NextEra removed them. We can provide an update at the next CLC meeting.</p> <p>Chair asked Derek D. to discuss the complaint resolution process (slides 13-14).</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 	<p>NextEra to provide an update on vortex generators for CLC #4</p>



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<p>of the complaint (1 business day if the complaint is related to Ground Water).</p> <ul style="list-style-type: none"> • The MOECC notification will include: <ul style="list-style-type: none"> – 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. <p>Complaint Resolution, cont'd:</p> <ul style="list-style-type: none"> • NextEra will provide the local MOE district office with a written record of the complaint within 8 business days of the complaint. • As soon as possible, and based on the complexity of the matter, contact complainant to follow up. • Information requests and complaints about the local operations and maintenance can be addressed to: <p>NextEra Energy Canada, LP 390 Bay Street, Suite 1720 Toronto, ON M5H 2Y2 Toll Free Phone: 1-877-463-4963 Main Office Line: 416-364-9714 Email: goshen.wind@nexteraenergy.com Website: www.NextEraEnergyCanada.com</p> <p>Chair asked the CLC members if there were any questions regarding the complaint resolution process. None received.</p>	
<p>6. Discussion of Monitoring and Mitigation Measures</p> <p>Chair invited Derek D. to discuss monitoring and mitigation measures (slide 15).</p> <p>Environmental Effects Monitoring Plan:</p> <ul style="list-style-type: none"> • 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. <p>Noise</p> <ul style="list-style-type: none"> • The Provincial Environmental Protection Act (EPA) requires that noise 	



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<p>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.</p> <p>NOTE: the allowable noise levels increase during higher wind speeds.</p> <ul style="list-style-type: none"> • 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 by January 2016. <p>Chair – Acoustic testing is completed by a third party, correct?</p> <p>DD – Yes, as part of the REA process, a third party contractor completes the acoustic emission and immission acoustic testing.</p> <p>How are the testing locations determined?</p> <p>DM – the locations are dictated by the protocol for testing. Once the third party contractor solicits locations, they inform the MOECC who then determines if the locations meet the specified guidelines.</p> <p>DD – In terms of where NextEra is at right now for the Goshen Wind Energy Centre, there are four audits that had to be done:</p> <ol style="list-style-type: none"> 1. Transformer emission testing – submitted July 2015 2. Emission testing – due Jan 2016 3. First Immission – conducted Spring 2015, due Jan 2016 4. Second Immission – conducted Fall 2015, due July 2016 <p>Chair – What happens if there is a level that is higher than expected throughout the monitoring process? Is there certain mitigation measures put in place?</p> <p>CM – The first step would be to contact GE (the turbine manufacturer) and ask why the turbines are not operating as they should be. GE would then assess if the issue was with a particular turbine or with a component of the turbines and then would correct it.</p> <p>DM – NextEra uses science to determine what level of noise should come from the turbines. NextEra is still in the testing phase and the requirements are tough to meet because we are dealing with mother nature which is why it takes a long time to complete the audits. We have thousands of data points but the weather does not always cooperate as expected. As a note, NextEra is also required to</p>	

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<p>shut down the turbines in order for the consultants to gather ambient data so that the noise levels and effects of the turbines may be assessed properly.</p> <p>DD – NextEra’s REA environmental effects monitoring would outline the mitigation measures that would take place if the levels do not meet MOECC requirements.</p> <p>Chair invited Christy Humphrey, NRSI (CH) to discuss monitoring and mitigation Measures (slides 16-17).</p> <p>Bird and Bat Post-Construction Monitoring</p> <ul style="list-style-type: none"> • Monitoring will be conducted in accordance with requirements of the REA and MNRF Guidelines • Monitoring began May 1, 2015 • Turbine searches occurred twice weekly from May 1st through October 31st, and raptor surveys are continuing 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 the end of February following each year of monitoring • 3 years of monitoring are required <p>Species-At-Risk (SAR) Monitoring</p> <ul style="list-style-type: none"> • Species at Risk mortality monitoring began in April 2015 • Monitoring has been conducted in accordance with MNRF requirements • All 63 turbines were searched monthly between April and November • Annual report will be prepared in winter 2015 • Species at Risk Monitoring continues for the life of the project <p>Natural Heritage Monitoring</p> <ul style="list-style-type: none"> • Post construction monitoring of certain wildlife habitats is required by the REA • Amphibian Breeding and Red-headed Woodpecker Habitat 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 	



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<p>Chair – To be clear, the data is provided to the MNRF who then release a summary report, correct? CH –The report containing the estimated mortality rate is produced by NRSI and will go to the MNRF and then NextEra will create a summary report containing information regarding mortality levels.</p> <p>Chair – You mentioned that the MNRF has certain limits; can you speak about those limits please? CH – Yes, there are thresholds for mortality in place. The threshold for bird mortality for the project is 14 birds per turbine, per year. The threshold for bat mortality is 10 bats per turbine, per year. The threshold for raptor mortality is 0.2 raptors per turbine, per year.</p> <p>The average kills in Europe were 1.6 for birds and in Canada you are saying the threshold is 14 per turbine, per year. Why is the average mortality rate different? CH – The MNRF determined the thresholds to use in their guidelines. For bird mortality in general, it is quite low. I would estimate that average bird mortality is around that same level in Ontario as well.</p> <p>At the anti-wind meetings, they are always using the phrase ‘slicing and dicing’ so this rate seems much lower than ‘slicing and dicing’. The concern I have is for the Blue Heron nesting in nearby trees. I saw one this year for about four (4) days where we would normally have from seven (7) to nine (9) days nesting. They didn’t come this year and I’m worried this is because of the turbines. CH – NRSI did start monitoring at the adjacent turbines for mortality in April because the Herons are active a little bit earlier and there definitely were no Heron mortalities found. We also did specific monitoring of the heron nests and it is my understanding that my staff saw the Great Blue Herons frequently this year. The Blue Heron nests are sometimes hidden where you cannot see them. [Update: NRSI staff were in the area twice per week starting in April and saw Great Blue Herons present at the colony throughout the month; 5 breeding pairs were present at their peak in mid-April and some were present into June. This is very similar to what was observed during pre-construction surveys.]</p> <p>Question asked on behalf of community member - My understanding is that there were turbines planned to be located in the vicinity of the Tundra Swan resting site and NextEra agreed that these turbines would not operate during the Tundra Swans migration. The turbines were in fact operating daily during the 2015 migration of the Tundra Swans. DD – This issue I suspect is dealing specifically with one of the turbines that was</p>	



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<p>within 120 metres of the Tundra Swan habitat. NextEra did not end up building this turbine because of the proximity to the habitat and as such did not have to shut down any turbines relating to Tundra Swan migrations.</p> <p>Was the Tundra Swan migration affected due to the turbines this year? CH – Nothing out of the ordinary was reported by bird experts in the province. There were definitely no Tundra Swan mortalities found at any of the 5 NextEra projects in the area this year.</p> <p>Comment – I live in the area and noticed a normal amount of Tundra Swans coming and going all the time.</p> <p>Can you (NextEra) find out if there was an original agreement that NextEra would curtail operation during the Tundra Swan migration period? DM – NextEra will get you an answer with certainty within these meeting minutes. UPDATE: After speaking to the biologists who did the initial studies before the project was granted the REA permit, NextEra did confirm that turbine 46 was designed and positioned within significant wildlife habitat, and if built, it would have required mitigation measures and post-construction monitoring commitments. NextEra opted to drop the turbine prior to construction, so it was never built.</p> <p>The numbers you’re talking about sounds like a lot of mortalities per year. 2.6 raptors per turbine, per year seems like too many. CH – The threshold for raptor mortalities for the year is 0.2 raptors per turbine. DM – It is very important to note that none of these thresholds include Species at Risk (SAR). There is no take number for SAR. If one (1) SAR is impacted at any time throughout the life of the project there is immediate action.</p> <p>Can you give us an example of SAR? CH – SAR in the vicinity of the Goshen Wind Energy Centre include the Eastern Meadowlark, Bobolink, Barn Swallow, Bank Swallow, Little Brown Bat, and Northern Long-eared Bat.</p> <p>Do we have access to the report containing mortality rates? CH – NextEra will be releasing a summary report containing mortality rates. DM – To be clear, the mortality rate is just an estimate. NextEra has to take many different factors into account including the scavenger rate, searcher efficiency, and so on.</p>	<p>NextEra to provide details regarding curtailment during the Tundra Swan migration period in the meeting minutes for CLC #3</p>

Item Discussed	Action
<p>Chair asked if there were further questions regarding monitoring and mitigation measures.</p> <p>None received.</p>	
<p>7. Retirement and Decommissioning Process</p> <p>Chair invited Doug M. to discuss the retirement and decommissioning process (slide 18).</p> <p>Lifespan</p> <ul style="list-style-type: none"> • 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. <ul style="list-style-type: none"> – NextEra Energy has replaced hundreds of old turbines with 34 Siemens 2.3 MW machines at the Altamont Pass facility in California. Several kms of overhead electrical lines, electrical poles and redundant service roadways were also removed. <p>Decommissioning:</p> <ul style="list-style-type: none"> • The process and impacts are similar to the construction phase, but in reverse sequence: <ul style="list-style-type: none"> – Temporary Work Areas: <ul style="list-style-type: none"> • Creation of temporary work areas (50 m x 50 m area with topsoil removed). • Creation of crane pads (15 m x 35 m area with topsoil removed and crushed gravel added). – Removal of Equipment and Buildings: <ul style="list-style-type: none"> • Use of cranes to remove the blades and hub and tower segments and use of trucks for the removal of turbines, towers and associated equipment. • Removal of above-ground lines and poles that are not shared with Hydro-One and filling of holes with clean fill. • Demolition of the substation. • Removal of roads and replacement with clean sub- and top-soil, unless the landowner requests that the roads be 	



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<p>left in place.</p> <p>Decommissioned Equipment Left in Place:</p> <ul style="list-style-type: none"> • Underground electrical lines will be cut and the ends buried 1 m 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>Are you saying that the underground cables are going to last more than 25 years? DM – If the turbines in 25 years have different MW capacity, the cables will not be big enough but the disturbance is already there; therefore, NextEra could bring up the old cables easily and replace them with new cables. We would assume that 20 years from now technology and standards will change.</p> <p>I was driving from LA to Palms Springs and noticed that the turbines were very close together on a Native Reserve but the WEC was shut down. Will NextEra be going to this location to replace the old WEC? DM – This site was built in 1991. It is actually Government owned land and they have not decided what to do with it yet. Back then, turbines were loaded into areas very close together but now we know that placing turbines so close together is not the most efficient way to produce wind energy.</p> <p>Chair – Does NextEra have a team that takes care of recycling? DM – Yes, NextEra has a team that takes care of all the recycling and disposal. Anything left over from construction and decommissioning goes to this group to get reused or repurposed.</p> <p>How long has NextEra been around? DM – NextEra is closing in on 20 years as an owner/operator of wind facilities.</p> <p>Are you (NextEra) absolutely sure that in 25 years the turbines will not be sturdy enough to keep running? DM – No, NextEra is not saying that. It would be great if NextEra could keep these turbines up for longer than 25 years but we assume there would be more reliable</p>	

Item Discussed	Action
<p>and efficient technology available in 25 years to replace the current machines.</p> <p>There is a rumor that NextEra is going to double the amount of turbines in this area in the coming years, is this true? CM – NextEra has bid on several projects in Ontario but there are no plans to double the amount of turbines in the Huron County area, as that is not feasible for various technical reasons</p> <p>DD – Realistically, transmission capacity would limit the amount of wind energy in this area. Southwestern Ontario is somewhat limited with respect to transmission capacity and as such most of the bids under the new large renewable procurement process are based in eastern and Northern Ontario.</p> <p>If the transmission capacity is available, is NextEra’s infrastructure in place to double the amount of turbines in the Goshen project? CM – The Large Renewable Procurement (LRP) program is an opportunity for NextEra to get new contracts and new projects developed, but without something like that being offered, NextEra does not have the incentive to build more projects. There are still active land options in the Goshen project area but NextEra is not maintaining them if they are about to expire.</p> <p>DD – It is more likely that projects would be developed in the Bruce and Northern Huron counties that did not get contracts previously. Through the LRP process there are 300 MW available to contract January 1st of 2016 which is a pretty limited scope. There is a lot of competition out there bidding on the 300 MW.</p> <p>Chair – There are consultation processes around the new LRP projects. If you have not heard of any public meetings, then most likely nothing in this area has been bid on, correct? DD – That is correct.</p> <p>Is there an update on the turbine on Kirkton road that had a broken wing? DM – A massive lightning strike occurred and hit the blade of that turbine. This lightning strike was 104 million amps of electricity. The turbine is not designed to withstand this kind of strike; therefore, the blade was split. The turbine behaved properly and shut itself off. NextEra did repairs and now the turbine is back running normally.</p> <p>Chair – How is the impact of a lightning strike measured? DM – The weather radar gives data regarding the measured total impact of lightning.</p>	



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<p>Were all of the landowners aware of the mortgage lien? CM – All of the participating landowners were contacted regarding the financing of the project. NextEra needed the landowners’ mortgage lender to sign off confirming that they would not take away NextEra’s easement to have a turbine or other project infrastructure on the property if the mortgage was defaulted on.</p> <p>Was that in the original lease with the landowners? CM – Yes, the right to finance the project was included in the original lease and this is the standard financing process for NextEra’s wind projects.</p> <p>Is there someone in the O&M building in Zurich 24 hours a day? DM – No, the standard operating hours at the Zurich facility are 7am – 3pm. There is staff on call within a one hour radius 24/7 otherwise, the call centre in Florida takes care of afterhours issues.</p> <p>In Bluewater we have to pay all our taxes up to date and then we apply to get money back. Bluewater is the only municipality that the landowners have to pay first and then apply to get the money back. Is there something we can do to change this rule? CM – This is the case in all of the Ontario municipalities where NextEra operates. When a landowner receives a property tax bill, they pay it and then send it to NextEra and NextEra will reimburse them. We would like the process to be simplified so that NextEra can pay the property tax bill directly to the municipality on the landowners’ behalf. It is still an ongoing process with the municipality; NextEra is trying to get the process streamlined within the next year. Bluewater did have the most amount of tax bills that NextEra has seen on any of our projects.</p> <p>The landowners are getting billed for NextEra infrastructure and the price is outrageous. This process could be simplified so landowners do not have the burden of dealing with the expenses. CM – Yes, NextEra understands that and we are working to streamline the process.</p> <p>DD –NextEra was providing the information to the Municipal Property Assessment Corporation (MPAC) all year, so we know they are aware of all project infrastructure.</p> <p>Comment - The assessments are tough to follow because this is the 4th year of the overall increase.</p>	



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<p>DD – Everything has a three-digit code and wind energy facilities have a specific code.</p> <p>Chair suggested putting this topic on hold until the next CLC meeting.</p>	
<p>8. Tentative Items for Discussion at Future CLC Meeting</p> <p>CLC Meeting #4</p> <ul style="list-style-type: none"> • Update on Operations and Maintenance • Monitoring & Mitigation Measures • Ongoing Community Involvement and Access to Information • Conclusion of the REA mandated CLC Process <p>Chair asked CLC members if there was anything else that should be discussed at the next meeting.</p> <p>Can we have a Community Vibrancy Fund (CVF) update? Is it true that the landowners may not be on the committee for the Community Vibrancy Fund?</p> <p>Comment - NextEra has given the money to the municipality but they did not give them any required guidelines on how to spend the money.</p> <p>DD – NextEra provides suggestions but not requirements.</p> <p>CM – NextEra did provide a list of suggestions on how to spend the money and has the ability to review and veto the spending decision if we feel the decision is inappropriate. The CVF cheque for the year (2015) will be distributed March 1, 2016.</p> <p>Comment - I suggest that part of the money from the CVF be spent on applying for the Green Fund. Every municipality in Ontario has the potential to apply for the green fund. I was asked to try to get more rural municipalities involved because you must have an integrated sustainment plan which Bluewater does not. North Middlesex has one now; therefore, they can apply under projects which are part of the four (4) pillar requirements to access that Integrated Community Plan. There is up to a \$10 million loan available. I suggested using the CVF to apply for the Green Fund. The \$300,000.00 from the CVF (10%) each year could leverage a \$3 million project for this municipality each year for the next 20 years. Rural municipalities should be applying and they are not. This municipality needs a lot of things and this CVF could contribute significantly.</p>	<p>NextEra to provide update on CVF at CLC #4</p>



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<p>Chair – I think there is an opportunity to work together to make a case to the municipality and the Goshen CLC meeting is a good place for initial talks like these, moving forward though I imagine these discussions will have to take place outside of the CLC forum in a more directed and focused meeting on this one issue.</p> <p>JD – If you like, NextEra can bring this issue up with the municipality when we have our next meeting with them.</p> <p>I would hate to have the CVF money disappear into the general fund and the members of the public not know what happened to it. DM – NextEra would hate to see that happen as well.</p> <p>How does NextEra know how the municipality spends the money in the CVF? DD – The municipalities are required to provide NextEra with a summary of where the CVF money was spent if asked.</p> <p>Can we have some examples of what other municipalities have done with the CVF money? CM – The municipality of Huron East and the municipality of Adelaide-Metcalf both purchased fire trucks with their CVF money.</p> <p>DD – Haldimand County undertook some very large projects and has provided summaries to the public of how the money was spent. Last year their CVF was around \$2 million.</p> <p>We should be creating jobs in this area. By spending 10% of the CVF on applying for grants because everyone would benefit. The municipality is not listening to me. Chair noted that members of the CLC should work together with NextEra to get this issue addressed by municipal council and noted that CVF spending will be added to the agenda for the next CLC meeting.</p>	
<p>9. NextEra Contact Information</p> <p>Chair urged members to contact him or anyone in the NextEra team at any time so all questions and comments can be addressed and provided the following contact information:</p> <p style="text-align: center;">NextEra Energy Canada, LP</p>	



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<p>390 Bay Street, Suite 1720 Toronto, ON M5H 2Y2 Toll Free Phone: 1-877-463-4963 Main Office Line: 416-364-9714 Email: goshen.wind@nexteraenergy.com Website: www.NextEraEnergyCanada.com</p> <p>Chair then outlined the deposition process. 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 to the following contact information:</p> <p>Email: adam.wright@aecom.com Fax: 519.763.1688 Mail: 55 Wyndham Street North, Suite 215, Guelph, ON, N1H 7T8</p>	
<p>Could the CLC invite local council members to the next CLC meeting so we can voice our concerns? Our municipality needs to move ahead. The money from the CVF is special and should be used in a special way.</p> <p>Comment – The council members will not come to us, we will have to go to them.</p> <p>Chair – If all CLC members agree, I think it is reasonable to invite members of the municipality to speak about the CVF.</p> <p>Would someone from NextEra be willing to join?</p> <p>DD – I would be happy to join you in meeting with council to discuss the CVF.</p> <p>Chair agreed to provide contact information to Gary Eagleson (CLC member) so he can lead the discussion with the local council.</p> <p>I have a question regarding the phrase subsidized wind power. The 20 year contract is 13.5 cents. If we look at our hydro bill, the peak is roughly 18 cents, mid is 15 and off peak is 11.5 cents. A lot of people have this belief that NextEra is subsidized by the Ontario Government enormously. The wind energy industry needs to give the public a better understanding of costs. Where are people getting this information that wind energy is subsidized by the tax payer?</p> <p>DD – NextEra can provide information at the next CLC regarding the cost of wind energy versus new nuclear or gas. I am unsure how this information gets distributed but I agree it is important to communicate the true costs so there is</p>	<p>Chair to provide CLC contact info to Gary E. so he may lead the discussion regarding the CVF funds with local council.</p>



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Item Discussed	Action
<p>transparency for members of the public.</p> <p>What did the Liberal government give NextEra to come to Ontario? DD – Under the Liberal government, NextEra was awarded a 20 year contract by the Ontario Power Authority (now IESO) to sell electricity for 13.5 cents per kW. In turn NextEra has invested a total of \$2 billion in Ontario’s infrastructure.</p> <p>Chair asked if there were any other comments or questions.</p> <p>None received.</p> <p>Chair thanked everyone for attending and then adjourned the meeting.</p>	

PARKING LOT

Parking Lot Topic	Response / Action
NextEra to provide update on turbine red flashing light issue for next meeting.	To be discussed at CLC meeting #4
AECOM to include the IESO website link in the meeting minutes.	Refer to pg. 9
NextEra to provide an update on vortex generators for CLC #4.	To be discussed at CLC meeting #4
NextEra to provide details regarding curtailment during the Tundra Swan migration period in the meeting minutes for CLC #3.	Refer to pg. 16
CVF spending will be added to the agenda as a topic for CLC #4.	To be discussed at CLC meeting #4



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Parking Lot Topic	Response / Action
Chair to provide CLC contact information to Gary Eagleson so he may lead the discussion regarding the CVF funds with the local council.	Action complete



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Appendix A

List of Attendees (CLC Members)



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COMMITTEE MEMBERS		
Name	Organization / Role (if any)	Attendance
Jim Deitrech	<ul style="list-style-type: none"> Resident / Landowner within 1km of the project 	Present
Frank Palen	<ul style="list-style-type: none"> Chair of the Huron Manufacturing Association (HMA) Member of the South Huron Chamber of Commerce 	Present
Chuck Ford	<ul style="list-style-type: none"> Resident / Landowner within 1km of the project 	Absent
Steve Finkbeinner	<ul style="list-style-type: none"> Farmer County Resident / Landowner 	Absent
Cathy Seip	<ul style="list-style-type: none"> Interested and concerned citizen 	Present
Allan P. Barnes	<ul style="list-style-type: none"> Lives in Shipka; operates the local drive in theatre, and is interested in learning more about wind energy and the project. 	Present
Hubert Haccius	<ul style="list-style-type: none"> Lives in Shipka; is a former pig farmer and a participant in the project. Would like to contribute to the conversation and also learn. 	Present
Bill Dowson	<ul style="list-style-type: none"> Resident of the Municipality of Bluewater; served 30 years on municipal council, and wants to help contribute to the community working together 	Present
Gary Eagleson	<ul style="list-style-type: none"> Business owner and Landowner 	Present
Arnold Kester	<ul style="list-style-type: none"> Farmer / Landowner 	Present



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Pat O'Rourke	<ul style="list-style-type: none">• Landowner and real estate agent in the Community	Present
Stephen Boles	<ul style="list-style-type: none">• Exeter resident; invited to participate as the President of the South Huron Chamber of Commerce.	Present
Aaron Neeb	<ul style="list-style-type: none">•	Absent