AECOM
215 – 55 Wyndham Street North
Guelph, ON, Canada N1H 7T8
Tel: 519 763 7783 Fax: 519 763 1668

Minutes – Bluewater Community Liaison Committee

Attn.: CLC members, NextEra Staff, Consultants

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

December 10, 2014 6:00pm – 8:00pm
Stanley Community Centre
38594 Mill Road, Varna ON N0M 2R0

Present:

CLC Members

- Kevin Wilbee, Dean Jacobs, Judy Keightly

NextEra

- Nicole Geneau, Director, Development; Jeffrey MacFarlane, Operations Manager; Jeff Damen, Construction; Derek Dudek; Catherine Mitchell

AECOM

- Avril Fisken; Adam Wright; Jessica Ward

NRSI

- Christy Humphrey

Absent:

- Paul Steckle

AECOM
215 – 55 Wyndham Street North
Guelph, ON, Canada N1H 7T8
Tel: 519 763 7783 Fax: 519 763 1668

Minutes:

Item Discussed	Action
1. Welcome and Introductions Avril Fisken (CLC Chair) welcomed the CLC, and asked CLC members and NextEra team representatives to introduce themselves (refer to pg. 1). The Chair then reviewed the Agenda for the meeting and outlined the function of the Parking Lot as a way to identify outstanding items that cannot be addressed at the meeting. The Chair outlined the agenda (Slide 2) 1. **Introductions** 2. **Recap of CLC Meeting # 2** – **Purpose of the CLC** – **Project Overview** – **Public Attendance and Depositions** 3. **Parking Lot Items and any Questions/Comments Raised since the Second CLC Meeting** 4. **Update on Construction and Installation** 5. **Operations and Maintenance - Introduction of Operations Team** 6. **Preliminary Discussion of Monitoring and Mitigation Measures (to be further discussed at CLC Meeting No. 4)** 7. **Depositions, if any requests received** 8. **Tentative Items for Discussion at Future CLC Meetings** CLC Chair welcomed the public and reminded the Committee and members of the public that anyone is able to provide a deposition to the Committee; people wishing to do so should submit an application to Avril (Facilitator) or Adam (CLC Coordinator) at least one week in advance of the next meeting. It is the Committee's role to review and approve any deposition. The Chair also noted that the agenda and presentation deck are available and was distributed for the public's review for the meeting. The Chair then provided a recap of the second CLC meeting.	
2. Recap of CLC Meeting # 2 • **Purpose of the CLC** – A forum for two-way communication between NextEra Energy Canada and the public – An opportunity to provide additional information and updates, and to respond to questions or concerns related to: • Construction and installation • Use and operation • Maintenance	

Item Discussed	Action
• Retirement of the Facility • **Project Overview** – Class 4 Wind Facility, in the Municipality of Bluewater and a transmission line that extends into Huron East in Huron County 37 turbines, with 80 metre towers and 50.5 metre blades – A generating capacity of 60 MWs • **Public Attendance and Depositions** – None received The Chair then reviewed the meeting summary review process: • Draft minutes were prepared by AECOM and circulated to the CLC on **June 3, 2014** • Members were asked to advise AECOM of any errors, omissions or changes by **June 10, 2014** • All recommended comments/changes were incorporated and the minutes were posted on NextEra's publically accessible website on **June 13, 2014** • CLC members were also emailed the final minutes on **June 13, 2014** The Chair asked if the meeting summaries for the previous meetings have been meeting the needs of the CLC members to communicate information, CLC members noted that the meeting summaries have been comprehensive and they have no issues. The Chair then asked Jeff Damen to review construction and economic benefits.	
3. Parking Lot Items and any Questions/Comments Raised since the Second CLC Meeting Jeff Damen reviewed the Construction Stats regarding economic benefits. • General Contractor is Borea Construction Canada • At least 16 Huron County companies used (subcontractors and suppliers) on the Bluewater project • There were nearly $4M in contracts with subcontractors and suppliers within Huron County • Peak volume of individuals on site including subcontractors was around 200 construction workers • 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	

Item Discussed	Action
Projected Economic Impact Construction Jobs: 200 at peak Full Time Operations Jobs: 6 Capital Expenditures: $160 Million Corporate Income Tax: $104 Million* Landowner Payments: $14.5 Million* *Estimated over first 20 years of the project. Chair noted the Parking Lot item regarding the direct and indirect economic benefits and how they would be measured and asked Nicole G (NG) to speak to this. NG - These numbers are over the first 20 years of the project, since we expect the project to run for 30 to 35 years we expect the benefits to be more than this. The numbers that Jeff outlined are the "direct" economic benefits, in addition to this there are indirect economic benefits. After the first 6 months of the project, we conduct an indirect economic benefit study. We anticipate that by the 4th CLC meeting we can provide details of the study as we are still in the planning stages to ensure we can find a third party to conduct the study and to ensure that the study is collecting constructive information. **Parking Lot Concerns** Nicole introduced Jessica MacKay Ward (JMW) to discuss the success of the Bobolink Habitat Plan. **Update on success of Bobolink habitat plan** JMW - The habitat compensation area has been established and is being managed in accordance with permit requirements, including the species of plants to be planted in the area and the timing restrictions for harvesting in the area. We did the first effectiveness monitoring surveys in June of 2014 and many bobolinks were observed; 3 surveys were conducted and 14 to 18 male and female bobolinks were observed in each survey. This is an excellent result. The current status is similar for the Summerhaven project, where we saw between three and 10 bobolinks in the compensation area during each survey. **Dean Jacobs (DJ) - How many years do you plan on measuring this success?** JMW - The MNRF requires that we monitor for 5 years and that the habitat compensation area be maintained throughout the life of the project. **DJ - Is there an annual management review of the area?** JMW - Through the monitoring program that is regulated through the Ministry of Natural Resources and Forestry (MNRF) there are suggestions made to ensure	**Provide study RE: indirect economic benefits at Meeting #4**

Item Discussed	Action
habitat is made effective and managed correctly. **DJ - Does the Committee get a copy of these reports?** NG - The timeframe for this Committee is over 2 years and our permit requirements for reporting to the MNRF is over a 5 year period so there is not a mechanism to share this info to the Committee. The MNRF is working to find an effective way to share these reports to the public. **DJ - Are there plans to continue the website over the project life?** NG - We are in the process in updating our project website as it was geared more towards the permitting process. We will have a website for the life of the project; the information currently on the website will continue to be there. **DJ - Was there a percentage for the compensation?** JMW - This was a 1:1 ratio, the rationale for that was that the habitat that was removed was typically for hayfields; because the land was used for farming, it would be harvested during breeding season. So the compensation was considered to be an improvement by protecting these areas. NG - There was also a minimum amount of acres that needed to be replaced if up to 9 acres were removed (so if 6 acres were removed 9 needed to be replaced). **DJ - Were natural grasses used in the restoration, and where were these purchased? I would like to share these sources with NextEra as it would be a great opportunity to procure from local and native sources.** JMW - Yes we have a list of the native species planted, but I am unsure where they were purchased from. **DJ - As it has been successful so far why do you think this is?** JMW - This is based on the amount of bobolink we have observed this year on all 3 surveys. This is strong evidence that they are using the habitat. **DJ - Does this have a wider application? Could this insinuate that there could be more if the habitat was appropriate?** JMW – Yes, the main reason they are listed 'at risk' is because of habitat destruction; this is a driver of species decline. Nicole G. continued to discuss the Parking Lot Items and asked Jeff Macfarlane to speak about protocol for turbine fires. • **Protocol for Turbine Fires** Jeff Macfarland (JM) - As a policy for NextEra, if there is a turbine fire we would get a notification at the site and a 911 call would most likely be placed. Instead of putting	**Additional information regarding seed mixture for Meeting #4** **Protocol regarding fire and emergency**

Item Discussed	Action
out the fire we opt to set up a perimeter and then let the fire burn out in a natural way. There is an emergency response plan that has been provided to the local municipalities and as part of the new project website we are going to ensure this plan is easily accessible. We also work with local responders to educate them on our protocol for response to fires. Nicole G. continued to discuss Parking lot items and addresses the potential for NextEra to fund community projects. • **Funding for Community Projects** NextEra currently receives these requests, and is working with the local municipality of Bluewater to set up a Community Vibrancy Fund (CVF) to ensure the administration of the fund is done at the community level, ensuring these funds stay within the community. Chair asked if there are any other questions, none were received.	**procedures to be included with Meeting Summary, or a link provided**
4. Update on Construction and Installation Jeff Damen (JD) then provided an update on Construction and Installation (slide 8) noting that overall the cleanup of the project is complete with only a few items left outstanding. 1) **Construction Clean up, Modifications and Road Repairs: July 2014 onward** – Waste and debris generated during construction activities to be collected and disposed of at an approved facility. – All equipment and vehicles will be removed from the construction area. – Reasonable efforts made to minimize waste generated and to recycle materials, including returning packaging material to suppliers for reuse/recycling. – During construction: Use of industry best practices for spill prevention utilized. In unlikely event of a minor spill, clean-up will be immediate and any impacted soils will be removed from the site and disposed of at an approved facility. 2) **Reclamation: (August to Spring 2015)** – Stripped soil will be replaced and re-contoured in the construction areas and disturbed areas will be reseeded during appropriate conditions for germination (as seasonality allows). Due to the transmission lines, there are some guard rails and some slope flattening required (essentially a re-sloping of the ditch so it is not too steep). There are also	

Item Discussed	Action
some agreements to finalize; this work will most likely move into early 2015.	
5. Operations and Maintenance - Introduction of Operations Team Jeff D. then reviewed the Operations and Maintenance procedure. For commissioning to start, we need to ensure that all components are operational. Before NextEra consents to Hydro One lines, we have a portable generator that emulates operations to ensure that the turbines are operating the way they should. After that we hand them over to the operations team. The project became operational on July 19 2014. **Wind Turbine Commissioning: July 19, 2014** **Requires Collection System, Substation, and Turbines to Start** • Turbine commissioning took place in sequential order prior to the planned Commercial Operation of the Project • Portable generators were used to provide backfeed power for commissioning prior to being connected to the power grid • Commissioning included testing and inspection of electrical, mechanical, and communications operability • A detailed set of operating instructions were followed in order to connect into the electrical grid **DJ - Were you awarded any acceleration days?** NG - This project was part of the second or third stage of the FiT program. When they initially launched the FIT project they encouraged companies to develop faster by providing additional benefits if you reached Commercial Operation Delivery (COD) before the date that was initially agreed to. These only applied to the first round of projects. As such, the Bluewater project was not awarded any acceleration days. Jeff Macfarland introduced himself as the project's operations manager and provided a general overview of the Operations. At a very high level, NextEra ensures that all turbines are working properly. As part of this, machines need to be repaired from time to time. These repairs are typically expected. In some cases these are unexpected but our monitoring systems (centrally located at the parent company's headquarters in Florida) notify local NextEra staff that maintenance is required. • 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	

Item Discussed	Action
maintenance activities will be scheduled as required, in accordance with manufacturer requirements • Spill prevention best practices utilized during the Construction Phase will also be implemented during operational maintenance • If unscheduled maintenance of a turbine is required (i.e. component failure), then the turbine will be taken out of service until the repair is complete. Larger trucks and cranes may be required periodically for larger repairs, but this is expected to occur infrequently • To monitor subsystems within each turbine and the local wind conditions, a comprehensive control system is installed and networked to the local operator and to NextEra's central operations centre (staff on-site 24/7). The operations building will be notified if an event occurs outside a turbine's normal operating range, and the turbine will be shut down. Turbines can be controlled remotely from the central operations centre • Operation decisions based on meteorological data include turbine shut down under icy or extreme weather, and cut-in and cut-out wind speed Jeff M. continued to discuss operations (slide 11) • **System Maintenance:** – GE 1.62 MW wind turbines are automated and have few maintenance requirements – Initial maintenance of the turbines occurs approximately 500 hours after initial commissioning and routine preventative maintenance activities are scheduled as required – Maintenance activities include changing of oil and gas filters, cleaning of gear boxes, replacement of worn parts and on-going inspections – All maintenance activities adhere to the same waste disposal and spill prevention industry best practices undertaken during construction • **Unplanned Turbine Maintenance:** – Modern turbines are very reliable and designed to operate for approximately 25 years – Minor component failure may occur (i.e. electronic cards, switches, fans or sensors) and can take a turbine out of service until the faulty component is replaced – Replacement of a major component (i.e. gearbox or rotor) is atypical. NextEra would work with the County and the landowner to coordinate the delivery of any large equipment and repairs (if required) Jeff M. asked if there were any questions regarding operations, none were received. Jeff M. then went on to discuss the complaint resolution process (slide 12) • NextEra acknowledges that some members of the community may have	

Item Discussed	Action
concerns regarding construction activities and long-term wind farm operations • To resolve disputes in a collaborative manner, NextEra follows its complaints resolution process • Should any complaints arise throughout the course of the construction, operation and decommissioning phases, a NextEra representative will contact the complainant to understand and seek a resolution • NextEra will notify the local MOECC (Ministry of Environment and Climate Change) **district office** of the complaint **within 2 business days** of receipt of the complaint (**1 business day** if the complaint is related to **Ground Water**) • The MOECC notification will include: – Description of the nature of the complaint; – Wind direction at the time of the incident related to the complaint; – Time and date of the incident related to the complaint; and – A description of the measures taken to address the cause of the incident and to prevent a similar occurrence in the future • NextEra will provide the local MOE district office with a written record of the complaint **within 8 business days** of the complaint • As soon as possible, **no later than three (3) days** call complainant to follow up • Prepare letter to respond to customer/citizen and mail **within 5 days of receiving complaint** • Information requests and complaints about the local operations and maintenance can be addressed to: **NextEra Energy Canada, LP** **390 Bay Street, Suite 1720** **Toronto, ON M5H 2Y2** **Toll Free Phone: 1-877-463-4963** **Main Office Line: 416-364-9714** **Email: bluewater.wind@nexteraenergy.com** **Website: www.NextEraEnergyCanada.com** Chair asked if there are any questions on the process. **DJ - Comment - Please update the MOE to the MOECC** Adam Wright noted that this will be updated throughout the slide deck and the forthcoming minutes. Nicole G. noted that no matter how you contact us (any member of the team), it goes through the same protocol and ultimately goes to Jeff M. We really encourage people to use these contact methods, the toll number is manned by a person. If you use the toll number or email it gets in Jeff hands quicker and the complaint is resolved much quicker.	

Item Discussed	Action
Chair asked is there are any other questions, none were received.	
6. Preliminary Discussion of Monitoring and Mitigation Measures (to be further discussed at CLC Meeting No. 4) • **Environmental Effects Monitoring Plan:** – In accordance with the requirements of Ontario Regulation (O.Reg.) 359/09, the Environmental Effects Monitoring Plan addresses various elements including, but not limited to, heritage and archaeological resources, natural heritage features and noise • **Noise** – The Provincial Environmental Protection Act (EPA) requires that noise emissions for any new projects must not have any adverse effects on the natural environment and not exceed 40dBA when wind speeds are of 6 metres/second and below **NOTE:** the allowable noise levels increase during higher wind speeds. – Prior to construction, a Renewable Energy Approval (REA) was obtained with measures to be adhered to, i.e. noise modeling by independent consultants – Noise emissions will not likely change unless there is damage to the equipment (immediately recognized by the computer monitoring system and addressed by the operations team) – Acoustic Emission and Immission testing will be conducted following COD. Results are then reported to the MOE Jessica W. discussed the monitoring and mitigation measures noting that a large portion of the post construction monitoring was initiated this year with some to be initiated in the new year (2015). • **Species-At-Risk (SAR) Monitoring** – Species at Risk mortality monitoring occurred during the summer of 2014 – Monitoring was conducted in accordance with MNR requirements – All 37 turbines were searched monthly – Annual report will be prepared in winter 2014 – Species at Risk Monitoring continues for the life of the project • Species at Risk monitoring will begin May 1, 2015 • Bobolink habitat monitoring occurred during the summer of 2014 • Bobolink habitat monitoring will continue in 2015 for 4 more years – SAR bat habitat compensation (bat house) monitoring occurred during the summer (June) of 2014	

Item Discussed	Action
• Monitoring will continue in 2015 for 2 more years (into 2016), and then once every 5 years for the life of the project – Butternut trees did need to be removed and compensation monitoring will begin in 2015 for 2 years **DJ - What is the ratio for butternut tree planting? In the past I have worked on a project where there was a 20:1 ratio.** Christy Humphrey (CH) - The planting ratio is dependent upon the health and size of the trees removed, and is identified in the regulation under the *Endangered Species Act*, 2007 (O.Reg.242/08). **UPDATE:** The Butternut compensation ratios were determined based on MNRF guidance outlined in the Notice of Butternut Impact and Butternut Health Assessment Report prepared and submitted to MNRF prior to construction. Two Butternut trees were considered 'retainable' and required replacement under the Endangered Species Act. For trees <3 cm dbh (diameter at breast height), 2 seedlings are planted, and for trees 3-14 cm dbh 5 seedlings are planted, for a total of 7 Butternut seedlings to be planted. These will all be planted in the Goshen Wind Energy Centre project study area where space is available and suitable for the species. Also of note, while there were a total of 4 Butternut trees permitted for removal in Bluewater (including 2 retainable trees, and 2 non-retainable trees that were heavily infected by the fungus pathogen that is causing the decline in this species), only one Butternut tree was actually removed during construction. **DJ - I am confused with the wording. SAR is federal. Isn't the endangered species act provincial?** JMW – Yes, the Species At Risk Act is applied on lands that are not under federal jurisdiction. The Endangered Species Act has jurisdiction on provincial lands. Here, we use the term Species At Risk (SAR) to identify species listed as endangered or threatened under the Endangered Species Act. Christy H. then reviewed the bird and bat monitoring process • **Bird and Bat Post-Construction Monitoring** – Monitoring will be conducted in accordance with requirements of the REA and MNR Guidelines – Monitoring will begin May 1, 2015 (this is based on the timing of the project to ensure that an entire year is captured rather than a portion of the year) – Turbine searches will occur twice weekly from May 1st through October 31st, and raptor surveys will continue weekly from November 1st through November 30th	**Provide Butternut ratio for Bluewater Project in minutes**

Item Discussed	Action
– Correction factors are applied in order to calculate overall estimated mortality rates across the project – Annual report provided to MNRF by March 31 following each year of monitoring – 3 years of monitoring are required. – Searches will occur at a subsample of the turbines (11 of 37), and will occur within 50m of the turbine base. – Scavenger removal trials will be conducted in each season to determine the level of scavenging activity in the project area. This correction factor will inform the estimated annual mortality rate. – Searcher efficiency trials will be conducted on each searcher who conducts surveys in each season. This correction factor will inform the estimated annual mortality rate. – Mapping of the area within 50m of the turbine will occur in each season in order to identify the types of habitats and crops present. Only areas that are largely clear of vegetation will be searched. The actual area searched will be identified and this correction factor will inform the estimated annual mortality rate. It is the intention of NextEra to maintain the search areas under the surveyed turbines to be relatively clear of vegetation in order to maximize the area searched. Chair asked if there are any questions, none were received. Jessica W. then discussed Natural Heritage Monitoring. • **Natural Heritage Monitoring** – Post construction monitoring of certain wildlife habitats is required by the REA – As part of this Red-headed- woodpecker monitoring began in June 2014 – Bat maternity colony habitat monitoring began in 2014 at 1 of 3 habitats required to be monitored – Monitoring was conducted in accordance with MNRF requirements – Annual report will be prepared in winter 2014 – Red-headed woodpecker and bat habitat monitoring will continue at these habitats for an additional 2 years, and at remaining significant habitats for 3 years – Habitat monitoring for the following habitat types will begin in 2015 for 3 years, in accordance with the requirements of the REA: – Amphibian breeding habitat – Significant woodland compensation – Annual reports will be submitted to MNRF by December 31st of each year of monitoring	

Item Discussed	Action
DJ - Can you explain the significant woodland compensation? JMW - As part of the REA requirements, one of the features that needed to be identified is significant woodlands within 120m of any project infrastructure. To determine what is considered significant, the size of the woodlots, as well as the species in the woodlot, is taken into consideration. There were areas where small strips of trees needed to be removed and as a result we have worked with the Ausable Bayfield Conservation Authority to develop a compensation replanting plan to re-forest one of their properties that is adjacent to Hay Swamp Provincially Significant Wetland. **DJ - Do they have classes of significant woodland designation?** JMW - In the Natural Heritage Assessment (NHA) process they are determined to be significant or not-significant. Nicole G. then introduced Catie Mitchell (CM) as a point of contact for people wanting to discuss items not relating to operations (i.e., items relating to the business of wind farms) noting that one of NextEra's items to do early in the new year (2015) is to introduce Catie to the municipalities. Catie M. asked if any CLC members had any questions for her and noted that she would be more than happy to speak outside of the meeting. Chair asked if there were any additional questions, none were received.	
7. Depositions, if any requests received Chair noted that no depositions were received for the meeting.	
8. Meeting Wrap Up Chair enquired about a good timeline for the 4th meeting and outlined future items for discussion. **DJ - Will you bring forward an update on the Community Benefits Agreement?** NG - Yes. **Judy Keightly (JK) - I sit on the Chamber of Commerce for Bayfield and we are very interested in the re-planting process for trees along main street. How would we go about inquiring about funds for procuring money for this process?** NG – For now, until there is a formal process, you can get in touch with Catie Mitchell or Derek Dudek and submit an outline of the project you want to initiate, the amount requested and any other pertinent items. NG - Regarding the magnitude of monies available for the CVF, it is expected to be	**Provide update at Meeting #4**

Item Discussed	Action
around $280,000 per year for 20 years. The recommended areas for funding are environmental stewardship, recreation and other community benefit programs. Ultimately this decision is up to the municipality and to my understanding there is a grant process. This being said, an agreement has not been established at this time. **DJ - Is this figure based on 37 turbines?** NG - Yes this is based on the number of turbines and the number of megawatts produced which is $3500 per a megawatt. **DJ - So your contract is over 20 years at 13.5 cents. Is the Community Vibrancy Fund also indexed to the CPI?** NG-The FiT contract is based on 20% of CPI which is 20% of 2%. Every 5 years we look at this agreement and determine the rate of inflation.	**Provide additional information regarding indexing of the CVF**
9. Tentative Items for Discussion at Future CLC Meetings **CLC Meeting #4** • Update on Operations and Maintenance • Monitoring & Mitigation Measures • Post-Construction Activities (e.g., reclamation or required repairs) • Provisions for Decommissioning • Other Chair reviewed potential topics for the next meeting (Slide 21), and asked the committee if they have any suggestions for the next meeting to please get in touch with herself or Adam Wright. Chair asked if there are any suggested dates for meeting #4? It was decided that based on REA requirements the next meeting should be in early April or end of March. *Meeting Adjourned*	

AECOM
215 – 55 Wyndham Street North
Guelph, ON, Canada N1H 7T8
Tel: 519 763 7783 Fax: 519 763 1668

PARKING LOT

Parking Lot Concern	Response to Concern
Indirect Economic Benefits	NextEra to provide study regarding indirect economic benefits.
Information regarding seed mixture.	NextEra to provide information regarding seed mixture for CLC meeting #4.
Link to NextEra's emergency protocol.	Link to be included in FINAL Meeting Summary for CLC #3.
Ratio for Butternut re-planting	NextEra to provide butternut re-planting ratio in Meeting Summary for CLC #3 (see pg. 11).
Update of the Community Benefits Agreement	NextEra to provide update for CLC meeting #4.
More information regarding the indexing of the CVF.	NextEra to provide additional information regarding indexing of the CVF for CLC meeting #4.