

IBI Group 5th Floor – 230 Richmond Street West Toronto ON M5V 1V6 Canada

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# Minutes – FOR CLC REVIEW

To/Attention	Notes to File	Date	December 16, 2013	
From	Amy Shepherd	Project No	31676	
		Steno		
Subject	Summerhaven Wind Energy Centre - CLC Meeting No.3 Cayuga Kinsmen Centre, Selkirk ON May 22, 2013 (6:30pm to 8:30pm)			
Present	IBI Group: Amy Shepherd and Erin Smith			
	<b>NextEra Energy Canada:</b> Ben Greenhouse, Clay Cameron, Tom Bird, Josie Hernandez, Derek Dudek, and Ray Dewaepenaere			
	<b>CLC Members:</b> James (Jim) Bryce, Jenny Bryce, Maggie Gui, Wilrik Banda, Les McLaughlin, John Schaeffer, Kris Franklin			
Distribution	NextEra Energy Canada and CLC Me	mbers		

Item Discussed	Action By
1 Introductions	
Amy Shepherd welcomed the CLC members, NextEra and observers.	
Amy explained that several questions had been brought forth by a member of the community regarding the advertising of CLC meetings in local newspapers, providing meeting minute summaries in local newspapers and releasing the names of CLC members to the public (questions attached to minutes – with answers provided in the minutes).	
• Amy suggested if CLC members were concerned that advertising the meetings on the County's website, on NextEra's website and through word-of-mouth was insufficient, then this third CLC meeting could be re-held, after posting an advertisement in the local paper. The CLC agreed this was not necessary and the 3 <sup>rd</sup> meeting should continue on as planned. It was agreed NextEra will post a notice for the 4 <sup>th</sup> CLC meeting in the local newspaper (as well as on the various websites).	NextEra will post a notice for the 4 <sup>th</sup> CLC meeting in the local newspaper (as well as on the various websites).
<ul> <li>Amy cautioned that given the minutes are so detailed, summarizing them for inclusion within the local paper could be problematic. She noted that the full minutes are available on NextEra's publically accessible website and that hard copies could be made available upon request (either to her or NextEra).</li> </ul>	

May 22, 2013 (6:30pm to 8:30pm)	Page 2 of 7
Item Discussed	Action By
<ul> <li>As for releasing CLC contact information, Amy reminded the CLC and observers that IBI Group is acting as the facilitator and that all questions should be directed to IBI Group – rather than direct contact being made with individual members of the CLC.</li> </ul>	
Amy provided a recap of CLC meeting No. 2 held on December 6, 2012 and noted that the minutes had been emailed to the CLC members and were available on NextEra's website.	
2 Status of Construction Activities	
The construction and installation of turbines is approximately 75% complete. The construction laydown area, the electrical substation and above-ground electrical transmission lines are complete. Land clearing, access roads and paths (temporary and permanent), turbine site and crane pad construction, and turbine foundations are 85% complete. Wind turbine assembly and installation and underground electrical cables are 65% and 40% complete, respectively and the meteorological owers' construction is ongoing. Completion of all construction activities s scheduled for mid-August 2013.	
Clay Cameron explained that some post-construction reclamation efforts have begun. Amy explained how NextEra has an agreement with the County that ensures any roads affected by construction activities will be restored to the same condition or better. Kris Franklin mentioned that restoration of Concession 6 has been completed. Tom Bird explained that the reclamation also includes swales and grading activities for environmental compliance. NextEra has a compliance officer to make sure all reclamation efforts are completed to a degree of satisfaction.	
A CLC member asked about maintenance of access roads, and specifically who is responsible for drainage. Ray Dewaepenaere explained that a portion of NextEra's yearly budget is assigned to maintenance of service roads (i.e. weed control, pot holes, etc.) and they have an ongoing commitment to landowners written into the andowner agreements to maintain to a certain standard.	
2.1 Heritage and Archaeological Resources Update	
Tom Bird explained that archaeological assessments were completed as part of the Renewable Energy Approval (REA). There are 4 stages in the archaeological process. Stage 1 establishes if there are any known archaeological sites in or near the project location. Stage 2 includes artefact collection. Since more than 1,000 artifacts were found at the Summerhaven site, deeming various project locations as "sites", a Stage 3 assessment was required.	
Stage 3 involved digging 30cm deep pits at varying intervals. Tom explained that once the archaeologists reach a specific threshold/ concentration of artefacts per pit, a report is written to the Ministry of Tourism, Culture and Sport (MTCS) for direction regarding the Stage 4.	

NextEra is waiting for MTCS to approve their Stage 3 report. Ben Greenhouse explained that as per Ministry regulations, and to protect the site/artefacts, the reports are not released to the public.

Ham Discussed	
Item Discussed	Action By
A CLC member asked what would become of the artefacts. Tom and another CLC member (former archaeologist) explained that the collected artefacts are stored in a repository or at the archaeologist's office in their repository. Once artefacts are recorded and documented, hey can be released and sent to an external repository, such as a university (McMaster and Western University have large repositories).	
expressed some interest in the artefacts.	
The former archaeologist explained that there are generally two types of nds: Aboriginal/First Nations and Canadian/European settler sites from round 1500 AD and sites where it is apparent there were long periods f occupation. Tom told CLC members that the area is rich in chert, a tone that flakes well, providing evidence that many people passed prough the area.	
An observer in the audience asked if she/he could pose a question to form. The CLC allowed the request.	
• The observer said that they had read that three sites had been recognized for a Stage 3 and Stage 4 mitigation because they lay partially within an area identified for a road expansion. Tom reiterated that Stages 3 and 4 are underway.	
3 Turbine Commissioning	
Ray explained that turbine commissioning involves making sure all of he turbines parts are running properly prior to operation. There is a 500 nour break-in period, at which point test and inspections of the electrical, nechanical and communications systems are done.	
Clay noted that the commercial operation date (COD) is anticipated for August/September 2013. Hydro One Network Inc. (HONI) will be naking the connection to the breaker yard in May 2013.	
A CLC member indicated they had seen some of the turbines already noving. Ray responded that even without power, the blades spin freely ike a pinwheel, because if the pin was locked, preventing the blades rom spinning, the turbine could potentially get damaged.	
4 Operations and Maintenance	
Ray explained that for the first two years of operation, the project will be operated, serviced and maintained by two warranty technicians from Siemens. After the second year of operations, two to three full-time NextEra technical and administrative staff will maintain and operate the acility, including business service technicians, travel technicians and central maintenance staff. Ben pointed out that the central maintenance eam will go from site to site to bolster the number of technicians on an as needed basis".	

Ben explained how NextEra maintains trained emergency services staff. NextEra has also met with the County's Emergency Medical Services Chief and provided them with the facility's Operations Plan. EMS does have ground training for wind facility-type emergencies.

#### Item Discussed

A CLC member asked whether there was a designated safety clearance zone around the base of the turbine and what kind of impacts large farm equipment could have on the turbines in a collision and if there were any training programs in place for the landowners? Ray explained that there are plenty of mitigation measures in place for landowners and the separation distance has been written into and agreed upon in the respective landowner agreements. Ben explained that there is a gravel path around each turbine which is approximately 6-10 feet wide and is a "no go zone" for landowners. The voltage in a turbine is comparable to the voltage emitted from one the green boxes powering a house in someone's backyard. The CLC member suggested a fact sheet be issued to landowners to explain the voltage and "no go zones".

Ben explained that each turbine is protected and monitored by the supervisory control and data acquisition (SCADA) 24/7. The sensors will notify SCADA before, and if, any serious conditions occur.

#### 4.1 Noise Emissions

Tom explained the Provincial Environmental Protection Act (EPA) requires that noise emissions for any new wind projects not have any adverse effects on the natural environment.

Prior to construction, a Renewable Energy Approval (REA) was obtained that outlines measures that must be adhered to (i.e. per Terms and Conditions Section C "Noise Performance Limits", the Company shall ensure that the Sound Levels from the equipment, at the Points of Reception identified in the Acoustic Assessment Report, comply with the Sound Level Limits set in the Noise Guidelines for Wind Farms, as applicable; and per Sections D and E have Independent Acoustical Consultants conduct an Acoustic Audit – Immission (2 within a 12-month period) and – Emission (1 no later than 6-months after COD).

A third party independent consultant will conduct the tests:

- Emission Test: Noise survey of the Siemens wind turbines at the turbine. The test will be conducted on each model at the site and noise levels should be less than 40db.
- Immission Test: Noise survey conducted on overall ambient noise at 3 separate receptors setup off site. This test is required once in the spring and once in the fall.
- Receptor tests: include setting up 3 receptors at a 550 metre radius from the turbines and at a meteorological tower.

Reports are then generated by the auditors and sent to the Ministry of the Environment (MOE).

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).

#### 4.2 Complaint Process

Action By

Ben mentioned that a fact sheet could be sent out to landowners as a reminder of the distance agreement and with facts about voltage.

New Bissesses I	
Item Discussed	Action By
Amy noted how NextEra follows a formal complaints resolution process, which can be found in the <i>Design and Operations Report</i> (on NextEra's website. Speaking to the detailed handout materials (attached), Amy described the process:	
A NextEra representative will contact the complainant <b>within 24 hours</b> of receiving the complaint to understand and seek a resolution. NextEra will <b>notify the local MOE district office</b> of the complaint <b>within 2 business days</b> of receipt of the complaint ( <b>1 business day</b> if the complaint is related to <b>Ground Water</b> ).	
The MOE notification will include:	
<ul> <li>Description of the nature of the complaint;</li> </ul>	
• Wind direction at the time of the incident related to the complaint;	
<ul> <li>Time and date of the incident related to the complaint; and</li> </ul>	
<ul> <li>A description of the measures taken to address the cause of the incident and to prevent a similar occurrence in the future.</li> </ul>	
NextEra must provide the local MOE district office with a written records of the complaint within 8 business days of the complaint. As soon as possible, <b>no later than three (3) days</b> call customer/citizen.	
NextEra will prepare a letter to respond to customer/citizen and mail within 5 days of receiving the complaint.	
Information requests and complaints about the local operations and maintenance can be addressed to:	
NextEra Energy Canada, ULC 390 Bay Street, Suite 1720 Toronto, ON M5H 2Y2	
Toll Free Phone: 1-877-463-4963 Email: <u>summerhaven.wind.@nexteraenergy.com</u> Website: <u>www.NextEraEnergyCanada.com</u>	
The toll free number is a specific line for the Summerhaven and Conestogo project and is staffed 24/7.	
4.3 Natural Heritage Resources	
Tom explained how post-construction monitoring, as per terms of the REA, will be undertaken for 3 years post-construction within 120m from the project. Reporting of the monitoring program and consultation with the MNR is required.	

May 22, 2013 (6:30pm to 8:30pm)	Page 6 of 7
Item Discussed	Action By
Tom provided members with an example of how NextEra monitors and mitigates impacts to wildlife:	
<ul> <li>In December 2012 at the Summerhaven Wind Energy Centre, a newly-built eagle's nest was discovered in a tree scheduled for removal located immediately adjacent to a proposed wind turbine.</li> </ul>	
• The nest was found after more than three years of extensive bird monitoring within the project area and after project construction had commenced. After consultation and approval from the MNR, the tree and nest were removed in early January 2013 to eliminate a potential hazard to eagles that might utilize the nest, and to give the eagles time to build a new nest or find another prior to their breeding season.	
• From early January 2013 through late February 2013, a team of experts installed five eagle platforms near the Lake Erie shoreline. To date, one pair of eagles has been spotted inhabiting one of the nests. There is clear indication that this is a mating pair with newly hatched eaglets. The nests will be monitored for 3 years.	
5 Deputations	
Amy explained that questions/comments from two members of the public were sent through the CLC for discussion. She noted that many of the questions had been already addressed throughout this evening's meeting (e.g. advertising, noise emissions thresholds, fire safety planning and contact information for the project/NextEra).	
The following additional questions were asked:	
<ul> <li>Could NextEra explain the subsequent amendment approval on January 2, 2013? Ben explained that the modification included changing all Siemens 101 to Siemens 93. The Siemens 93 model has shorter blades and the necessary supply of Siemens 101 was not available during the timeframe NextEra needed them for. The REA amendment is posted on NextEra's website, i.e. project modifications report: http://www.nexteraenergycanada.com/pdf/summerhaven/MOEN oticeofAmendment_May23-2013.pdf</li> </ul>	
<ul> <li>Was the turbine in the United States where a blade broke free of its mounting the same type of turbine being used for Summerhaven? Ray explained that the turbines are not the same as the defected one.</li> </ul>	

Action By

#### Item Discussed

Amy reminded the CLC and the observers that the purpose of the CLC is to discuss the Operations, Maintenance, Construction and Decommissioning of the project, as the project has REA approval. She explained that the second submission she had received from a member of the community included mainly comments on topic that were outside the scope of the CLC and therefore they would not be addressed at the meeting (e.g. opinions on the Municipal Property Assessment Corporation (MPAC), the pricing of energy, facility location, etc.).

Amy explained that the second submission contained responses to an article published in the Sachem about wind energy. She relayed some of the person's concerns pertaining to noise and real estate (see attached details of the article and the person's responses).

#### 6 Other

#### 6.1 Newsletters

A CLC member asked whether or not newsletters will still be issued once the project is operational. Josie Hernandez explained that newsletters are presently issued quarterly, but they will not be continued once the project is operational. A CLC member suggested an update be released once the construction phase is over to let the community know how the project has been running.

#### 6.2 Site Tour

The CLC members were asked if they would be interested in taking a tour of the wind facility site. A number of members expressed interest, and Amy and Clay agreed to coordinate a tour date.

#### 6.3 Tentative Items for Discussion at Future CLC Meetings

Amy explained that the next CLC meeting is tentatively set for the late fall of 2013. Meeting No. 4 will provide an update on construction activities, operations and maintenance; provide more details on monitoring and mitigation measures; and discuss provisions for decommissioning. Amy suggested that as required, and at the discretion of the Director of the MOE, additional meetings could be held.

#### 7 Concluding Remarks

Amy thanked everyone for their time and input, and encouraged the CLC members to contact her if they had any questions or additional comments pertaining to the CLC process or items discussed in the third meeting.

\*\*\*Please report any errors or omissions to:

Amy Shepherd <u>ashepherd@ibigroup.com</u> (T) 416.596.1930, ext. 536 (F) 416.596.0644 Amy Shepherd to coordinate a site tour (held June 5, 2013 – see attached photos).

# Comments and Questions Submitted to IBI Group and brought forward for Discussion at the CLC #3 Meeting

### (i.e. questions or comments which pertain to the construction, operations, maintenance, monitoring/mitigation and decommissioning of the Summerhaven Facility)

#### Submission #1

1. Why are these meetings not being advertised in the local papers: Haldimand Press and The Sachem (which everyone gets)?

In the <u>first</u> meeting minutes, P.12 under <u>Action by</u> says: "Amy Shepherd is to co-ordinate postings of future CLC meetings in local newspaper as well as on-line."

I didn't see any notices in the local papers of this meeting or the other CLC meetings but there was an article in The Sachem by Steven Stengel, your director of communications on April 4/13, a half page bald eagle ad in the Press on May 15, 2013 and letters mailed to residents about the recent change in the project.

NextEra's Approval item L8 P.13 states: "The company shall ensure that all CLC meetings are open to the <u>general</u> public." If the public isn't notified of these meetings, then the meetings are not really open to the general public. Capital Power and Samsung advertise their CLC meetings in the local papers.

There's also not apt to be any depositions when the public doesn't know:

A. that there is a meeting and

B. that they can make a deposition.

2. It would also be informative to the general public if the minutes of these meetings were summarized in an article in the local papers after each meeting. Also helpful would be phone numbers, mailing addresses and email addresses of the committee members who would be willing to take guestions/concerns from the general public to ask at these meetings.

Advertising the meetings, summarizing the minutes and listing contact info for questions from the general public in the local papers and on the websites would be the best way for this committee to fulfill its purpose of providing a forum for the company to discuss concerns with the public.

3. Just to clarify for the local members of the CLC, these meetings may not be limited to 4 meetings over 2 years. At the 2<sup>nd</sup> meeting and recorded in the minutes on the top of P.2, Amy said "the fact there will only be 4 meetings in total" is not entirely correct. The Approval states: "At the end of this 2 year period, the company shall contact the Director to discuss the continued operation of the CLC." (Approval item L7, P.13) So it's conceivable that the CLC meetings could continue after the 4 meetings over the first 2 years, depending on the results of discussions with the Director.

4. This past week an 11-ton Siemens 2.3 -108 blade pulled free of its mounting assembly and snapped off. It landed 150 yards from the tower on a trail used by off road vehicles. No one was hurt. During the night, the wind was blowing from 9 - 19 mph with gusts up to 29mph. They should withstand winds up to 130 mph. Siemens has curtailed all turbines with this blade type globally. In March 2010 in Scotland and April 2010 in Iowa, a Siemens blade also snapped off. What has NextEra done about this situation since your project is using Siemens wind turbines?

5. Are they still using 2 types of Siemens turbines, the SWT -2.221-101 and the 2.221-93 for this project? If so, where are they placing the turbines with the shorter 93m blades?

6. How will people know what number to call for any kind of problem after the turbines start up and throughout the life of the project?

7. What is the fire safety plan concerning fires in wind turbines?

8. Concerning the project change, have the Stage 3 and possibly Stage 4 archaeological investigations taken place on the new access road location as recommended by MTCS? Since the latest OK came back on April 25/13 from MNR, there has been time to work on those. What is the status of those investigations?

9. In NextEra's recent project change letter to residents, it also mentions that there was a "subsequent amendment approval on January 2, 2013." Could you please tell us what amendments were made to the project and where we could find documentation of the January 2013 amendment? I don't see it on NextEra's website. Capital Power has on their website, the documents for their approval amendment and subsequent approval of that amendment.

#### Submission #2

# Reply to Steven Stengel's article in *The Sachem* on April 4 called "Wind energy has been thoroughly studied".

Summary of Excerpts from the Article: Most use a regulated noise level standard, with a maximum of 40 decibels allowed at the nearest residence or building. That's a volume that falls somewhere between rustling leaves and a quiet room, and is below the level at which the World Health Organization says impacts on sleep occur. Ontario's "belt and suspenders" approach of a 550 metre setback (more than five football fields) and a 40 decibel noise maximum employs the best of both types of protection.

Summary of Comment Submitted: The regulations do not consider low frequency and infrasound. Wind turbine noise is pulsating and found to be more irritating than rustling leaves and a quiet room. Since the size of turbines you are deploying have come along, many have been suffering sleep deprivation and health problems. Animals too have been affected.

Summary of Other Comments Submitted: Other independent studies have shown real estate is severely affected by wind turbines. Other literature reviews have shown a connection between industrial wind turbines and human health.



www.NextEraEnergyCanada.com

# NextEra Energy Canada Summerhaven Wind Energy Centre

# **Community Liaison Committee (CLC): Meeting No. 3**



Wednesday, May 22<sup>nd</sup>, 2013 (6:30 to 8:30 pm) Cayuga Kinsmen Centre

NOTE: This meeting package was compiled by the CLC Coordinators and Facilitators (IBI Group) and as such may be subject to clarification or correction by NextEra Energy Canada and its technical staff/specialists. The CLC members will be notified of any revisions to the meeting package, and the final package will be posted and available for public review on NextEra Energy Canada's website.

#### Introductions

### **CLC Coordinators and Facilitators (IBI Group):**

- Amy Shepherd
- Erin Smith

### NextEra Energy Canada:

- Ben Greenhouse, Project Director
- Clay Cameron, Project Manager
- Jeremy Ferrell, Business Manager
- Tom Bird, Environmental Services Manager
- Ray Dewaepenaere, Wind Operations Manager

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Joselen Hernandez, Senior Communications Specialist Derek Dudek, Community Relations Consultant

### **CLC Members:**

Les McLaughlin

John Schaeffer

Councillor Fred

- Darlene Burns
- James (Jim) Bryce •
- Jenny Bryce
- Maggie Gui
- Wilrik Banda



NextEra Energy Canada Summerhaven Wind Energy Centre

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- Morrison
- Kris Franklin

### Meeting Agenda

#### 1. Recap of CLC Meeting No. 2 (held December 6, 2012)

- Construction and Installation
- Commissioning and Operations
- Deputations
- Minutes
- 2. Status of Construction Activities (75% complete)
- 3. Timing of Commissioning
- 4. Operations and Maintenance
- 5. Preliminary Discussion of Monitoring and Mitigation Measures (to be further discussed at CLC Meeting No. 4)
- 6. Tentative Items for Discussion at CLC Meeting No. 4
- 7. Other



### Recap of CLC Meeting No. 2 (held December 6<sup>th</sup>, 2012)

#### • Status of Construction (as of December 2012):

- Construction Laydown Area complete
- Roads and Land Clearing 50% complete
- Turbine Foundations in progress
- Collector System, Electrical Transmission Lines, Horizontal Directional Drilling, Transformer Substation and Switchyard Area, Operations Building and Meteorological Towers ongoing.
- Delivery of Equipment anticipated for January, 2013.

### Commissioning

#### • Public Deputations:

- None.
- A few observers.

#### • Meeting Minutes:

- Draft minutes were prepared by IBI Group and circulated to the CLC on March 1, 2013.
- All recommended comments/changes were incorporated and the minutes were posted on NextEra's publically accessible website on March 14, 2013.

http://www.nexteraenergycanada.com/pdf/summerhaven/CLCmeeting2\_2013-03-14\_Final.pdf



#### Status of Construction Activities

#### • Scope of Construction Activities:

- Land Clearing
- Access Roads and Paths (temporary and permanent)
- Construction Laydown Area
- Turbine Site and Crane Pad Construction
- Turbine Foundations
- Wind Turbine Assembly and Installation
- Underground Electrical Cables
- Electrical Substation
- Above-ground Electrical Transmission Lines
- Meteorological Towers
- Construction Activities (75% complete).
- Anticipated Completion: August 2013.



#### Status of Construction Activities

#### Heritage and Archaeological Resources:

- Archaeological Assessments are a critical component of wind energy project development and completed as part of the Renewable Energy Approval (REA).
- Archaeological Process:
  - Stage 1 establish if there are any known archaeological sites in or near the Project Location.
  - Stage 2 identify archaeological resources and confirm if additional studies were needed; 1,006 found.
  - Stage 3 if required, perform more detailed assessment to either remove or avoid resource.
  - Stage 4 if required, perform extensive assessment to either remove or avoid resource.
- NextEra has been working with the Ministry of Tourism, Culture and Sport (MTCS) and Six Nations communities.
- In the event of operations-related land disturbances, NextEra will work with a licensed archaeologist to determine the appropriate mitigation measures.





### Timing of Commissioning and Operations

- Turbine Commissioning: Anticipated August/September 2013
  - Occurs when the wind turbines and substations are fully installed and Hydro One Is ready to accept the grid interconnection.
  - Commissioning activities include testing and inspection of electrical, mechanical and communications systems. For example, all turbine logics, including all protective and shut down relays will be tested prior to turbines being placed in service.
  - Commercial Operation Date (COD): Anticipated August/September 2013



#### Status of Post Construction Activities

- Examples of post construction activities:
  - Clean Up and Reclamation Following Construction, including Construction Laydown Area.
  - Modifications or Repairs to Municipal, Regional or Provincial Roads.
- Post Construction Activities likely commence in the Fall of 2013.





NextEra Energy Canada Summerhaven Wind Energy Centre Community Liaison Committee (CLC): Meeting No.3 May 22, 2013

#### **Operations and Maintenance**

#### **Operators:**

- The contract with Siemens requires their wind technicians to operate the Summerhaven project for the first two years.
- After the 2<sup>nd</sup> year of operation, operations and maintenance will require 6-8 full-time trained technical and administrative staff. Primary workers are wind technicians who carry out maintenance and their site supervisor.

#### **Operations (25-year phase):**

- Each turbine has a comprehensive system that monitors the subsystems within the turbine and local wind conditions. If outside of the normal operating range (i.e. low hydraulic pressures, unusual vibrations or higher generator temperatures), the turbine will immediately take itself out of service and report the condition to the SCADA (supervisory control and data acquisition) system. Cut-in wind speed of 4m/s and cut-out wind speed of 25m/s. At speeds greater than 13m/s, the blades feather out of the wind and the yaw system on the turbine nacelle will rotate the turbine out of the prevailing wind direction.
- A communication line connects each turbine to the operations centre, which closely monitors and controls the operation of each turbine. Real-time monitoring is essential to reduce unplanned outage events and duration by detecting changes to the turbine performance (i.e. faulted, risk of fire, structural instability).



### **Operations and Maintenance**

#### System Maintenance (to be discussed further at CLC Meeting No. 4):

- Siemens 101 and Siemens 93 wind turbines are automated and have few maintenance requirements.
- Initial maintenance of the turbines occur 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).



#### Wind Turbine Operation – Complaint Resolution:

- NextEra acknowledges that some members of the community may have concerns regarding construction activities and long-term wind farm operations.
- To resolve disputes in a collaborative manner, NextEra follows its complaints resolution process.
  - Should any complaints arise throughout the course of the construction, operation and decommissioning phases, a NextEra representative will <u>contact the</u> <u>complainant within 24 hours of receiving the complaint</u> to understand and seek a resolution.
  - NextEra will **notify the local MOE** (Ministry of Environment) **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 MOE 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.



#### Wind Turbine Operation – Complaint Resolution:

- NextEra will provide the local MOE district office with a written records of the complaint **within 8 business days** of the complaint.
- As soon as possible, **no later than three (3) days** call customer/citizen.
- Prepare letter to respond to customer/citizen and mail within 5 days of receiving complaint.
- Information requests and complaints about the local operations and maintenance can be addressed to:

NextEra Energy Canada, ULC 390 Bay Street, Suite 1720 Toronto, ON M5H 2Y2 Toll Free Phone: 1-877-463-4963 Main Office Line: 416-364-9714 Email: <u>summerhaven.wind@nexteraenergy.com</u> Website: www.NextEraEnergyCanada.com



#### **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.



#### Natural Heritage Resources (to be discussed further at CLC Meeting No. 4):

- Pre- and post-construction monitoring has/will be undertaken for three woodlots containing significant landbird migratory stopover areas (as agreed and confirmed by the Ministry of Natural Resources (MNR)), within 120m from the project.
- Proposed post-construction monitoring period of three years for both birds and bats.
- Twice weekly mortality monitoring surveys for birds and bats of all turbines.
- Weekly mortality monitoring surveys for raptors of all including:
  - Scavenger removal trials; and
  - Searcher efficiency trials.
- Reporting of the monitoring program to, and consultation with the MNR.



#### Example Avian Monitoring: Bald Eagle Nest, Summerhaven Wind Energy Centre

#### **December 2012 - Summerhaven Wind Energy Centre, Haldimand County**

- A newly-built eagle's nest was discovered in a tree scheduled for removal located immediately adjacent to a proposed wind turbine.
- The nest was found after more than three years of extensive bird monitoring within the project area and after project construction had commenced.
- After consultation and approval from the Ontario Ministry of Natural Resources (MNR), the tree and nest were removed in early January 2013 to eliminate a potential hazard to eagles that might utilize the nest, and to give the eagles time to build a new nest or find another prior to their breeding season.
- From early January 2013 through late February 2013, a team of experts installed five eagle platforms near the Lake Erie shoreline.
- To date, one pair of eagles has been spotted inhabiting one of the nests. There is clear indication that this is a mating pair with newly hatched eaglets.



Community Liaison Committee (CLC): Meeting No.3 May 22, 2013

IBI group

### Other (to be discussed further at CLC Meeting No. 4):

- Air Quality;
- Water Bodies; and
- Provincial and Local Infrastructure.



### Other

### CLC Meeting No. 4

- Update on Post-Construction Activities
- Further Discussion of Operations and Maintenance
- Further Discussion of Monitoring and Mitigation Measures
- Provisions for Decommissioning
- Other

#### Other

- Deputations Questions received through a CLC Member from members of the community.
- CLC Member interest in touring the facility in the summer (i.e. Laydown Area).

# Information Available for Review at www.NextEraEnergyCanada.com:

- Aboriginal Consultation Report
- Archaeological Reports
- Avian Report
- Bat Reports
- Bird and Bat Monitoring
- Construction Report
- Consultation Reports, Information
   Packages and Other Communication
- Decommissioning Report
- Design and Operations Report
- Environmental Impact Assessment Report
- Maps & Figures
- Natural Heritage Report
- Noise Study Report
- Project Description Report
- Visual Simulations
- Water Report
- Wind Turbine Specification Report
- Renewable Energy Approval
- Community Liaison Committee Materials

• NOTE: This meeting package was compiled by the CLC Coordinators and Facilitators (IBI Group) and as such may be subject to clarification or correction by NextEra Energy Canada and its technical staff/specialists. The CLC members will be notified of any revisions to the meeting package, and the final package will be posted and available for public review on NextEra Energy Canada's website.

Please feel free to contact the CLC facilitators (IBI Group) if you have any questions or comments regarding the CLC. <u>ashepherd@ibigroup.com</u>, 416 596-1930 ext 536





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# NextEra Energy Canada Summerhaven Wind Energy Centre

Photos from the Community Liaison Committee (CLC) and Selkirk Chamber of Commerce Site Visit (June 5, 2013)

Photo package compiled by the CLC Coordinators and Facilitators (IBI Group). Intended for information purposes only.

















#### **Base of Blades**



