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Minutes

To/Attention	Notes to File	Date	March 14, 2013
From	Erin Smith	Project No	32122
Subject	Summerhaven Wind Energy Centre - Community Liaison Committee (CLC): Meeting #2 Rainham Centre Community Hall Thursday, December 6th, 2012 (6:30pm - 8:30pm)		
Present	IBI Group: Amy Shepherd & Erin Smith NextEra: Mike Bogie, Doug McIntosh, Joselyn Hernandez & Shelley Lohnes (AECOM, attending on behalf of Tom Bird of NextEra) CLC Members: Darlene Burns, Jim Bryce, Jenny Bryce, Maggie Gui, John Schaeffer, Councillor Fred Morison, Kris Franklin, Wilrik Banda & Les McLaughlin		

Item Discussed

Action By

1 Introductions

Amy Shepherd welcomed all of the CLC members and reminded the group that as per emails sent in November 2012, the CLC had two new members:

- Kris Franklin, Project Manager Green Energy Infrastructure Engineering Services Division for Haldimand County; and
- Councillor Fred Morison, Ward Two, Haldimand County.

1.1 New Member

Amy noted that she had just received another request, by a local resident (Les McLaughlin), to join the CLC. Les McLaughlin explained he used to work for Toronto Hydro, and that he had been involved in getting the wind turbine at the Canadian Exhibition Centre ("the Ex") on the grid.

The CLC members agreed by 'motion' that Les could join the CLC (bringing the Summerhaven CLC membership to 11 people, although two individuals did not attend the first meeting and were not present at the second meeting).

1.2 Future Membership Requests

Amy reminded the group how the opportunity to join the CLC was advertised in local newspapers and how notices were mailed to all houses and businesses within 1 km of the facility and posted on the websites of the County and Next Era.

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Amy suggested that given the terms of the CLC Charter and the fact there will only be 4 meetings in total, if any more membership requests were received after the second CLC meeting those people should be advised it is too late to sit at the table as a CLC member. That said, anyone is welcome to observe the CLC meetings and to submit written depositions or contact IBI Group or NextEra if they have specific questions or information requests. The CLC members agreed with Amy's suggestion.

Jenny Bryce noted that she had sent an email to people within the Selkirk Chamber of Commerce database, notifying them of the upcoming CLC meeting and inviting them to send her any questions to pass on to IBI Group and NextEra. To date, she has not received any replies.

Amy explained to the new CLC members that nothing discussed at the CLC meetings is confidential and that all information is available on NextEra's publicly accessible website.

2 Recap of the First CLC Meeting

Amy provided CLC members with a recap of the first CLC meeting that was held on August 8, 2012.

2.1 Purpose of the CLC

The CLC is a forum for two-way communication between NextEra Energy Canada and the public and provides an opportunity to receive additional information and updates; and discuss questions and concerns related to: construction and installation; use and operation; maintenance; and retirement of the facility.

2.2 Project Overview

The project is a Class 4 wind facility with 56 turbines (80 meter towers with 50.5m blades).

2.3 Public Depositions

Amy noted that no public depositions had been submitted at the first CLC meeting, and that there had been only one observer.

2.4 Minutes of CLC Meeting #1

Amy thanked the CLC members for taking the time to review and comment on the draft Minutes that had been circulated in September 2012. The final minutes were emailed or mailed to the CLC members in November 2012 and Amy explained that they had been posted on NextEra's publically accessible website. Hard copies were available at the meeting.

3 Update on Construction and Installation

3.1 Construction Laydown Area and Turbine Foundations

Mike Bogie worked through the schedule on page 5 of the attached meeting handout, noting that the construction laydown area was complete and that work on the turbine foundations had been started. Construction would likely carry on through to February 2013 (Note: The

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IBI Group to correct slide 5, prior to distribution and posting of the minutes (Completed).

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schedule incorrectly showed that the turbine foundations were complete).

3.2 Roads and Land Clearing

Mike explained that access to the job sites has been via gravel roads. Following construction, the roads will be used by the operations and maintenance team.

The access roads will start off as 20 ft. wide. Over time with the growth of corn crops, the width of the roads will be significantly reduced. A CLC member asked how closely a farmer can grow to a turbine. Mike explained that at least 6 ft. is required so that an operations or maintenance truck can continue to have access around the turbine. Doug McIntosh showed the group an example of a typical access road where corn crops have encroached.

A CLC member asked where all the top soil goes, which has been stripped as part of the construction laydown area and road works. Mike explained that the stripped top soil is stored on-site in piles and is then replaced once construction is completed (e.g. used backfill).

3.3 Collector System and Electrical Transmission Lines

Mike explained that the collector system and electrical transmission lines should be complete by December 2012.

3.4 Horizontal Directional Drilling

Mike explained that they are starting the boring this month (December 2012), avoiding areas that should not be disturbed (e.g. wetlands, roads).

3.5 Transforming Substation and Switchyard Area

Mike explained that the substation is located near Concession 5, east of Cheapside Road and that the laydown yard and operations building are located next to the substation. Speaking to page 11 of the handout (attached), he described the various safety precautions being taken.

3.6 Operations Building

Mike explained that the 50 x 100 ft operations building will be used for offices, warehousing and storage. A CLC member noted they had seen a project where the building was made to look like a barn. Mike explained that the substation for Summerhaven would be an open air structure, as shown on page 12 of the handout.

Doug indicated that the facility will employ approximately 7 to 8 full time people (e.g. site leader, technical business services, and wind technicians) and that additional maintenance staff will be used. He noted that there was a very good turnout at the job and opportunity fair held last month (November 2012) in Cayuga and that NextEra will likely start to interview in March of 2013. Doug reiterated what was discussed at the first CLC meeting, about how Siemens will be doing all the training and operations for the first two years and then those technicians will become full-time with NextEra.

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3.7 Meteorological Towers

Mike explained that there will be two FPMTs (Fleet Performance Meteorological Towers) and two SCADA (supervisory control and data acquisition) Meteorological Towers installed in the first quarter of 2013. The SCADA records the turbine's activity (i.e. input and output). It is an IESO (Independent Electricity Service Operator) requirement and all data is transmitted to the IESO. Mike explained that as per IESO requirements, the meteorological towers are required to be the same height as the hub of the turbine; therefore they will be 80 m tall.

3.8 Delivery of Equipment

Mike explained how NextEra conducted a survey of local roads to determine height and width clearances for truck movement during delivery (i.e. heights of poles, low hanging wires, intersection widths, truck turning radii) and how NextEra worked with the County and with Bell and Hydro to select the best delivery routes and to mitigate any potential delivery challenges.

Kris Franklin noted that the size and amount of material is generally regulated by the load restrictions per axle. NextEra will undertake intersection improvements in coordination with the County and AECOM.

Mike explained that on average seven (7) full turbines will be delivered per week. Each delivery will require 8 to 9 trucks (3 for the blades, 3 for the tower, 1 each for the nacelle, hub and spare parts/miscellaneous supplies). Equipment delivery should be complete by February 2013. Mike explained that the delivery route has not yet been finalized.

A CLC member noted that most local people are good about sharing the road with oversized trucks. Mike asked that members of the CLC and the community report any concerns they have about truck drivers who appear to be speeding or not operating safely.

3.9 Pre-Commissioning Phase

Mike explained that prior to commissioning the turbines, NextEra has to stack the pieces together with bolts, torque the turbine, and wire everything down from inside the tower to the nacelle. This process generally takes about 3 to 4 days. Turbines require power to turn the nacelle and to face the wind.

When complete, NextEra will bring in load banks which are a way to test the turbines without them being connected to the grid. The load bank can only test a couple of turbines at a time and over a short period of time. When testing is complete, NextEra will transition to the Operations Plan, which consists of a large list of checks and balances.

3.10 Clean Up and Reclamation

Mike explained that NextEra makes reasonable efforts to minimize waste and to recycle. He provided an example of how once the fibre optic cables are removed from the steel wheels they are delivered on; NextEra returns the wheels to be re-used and or recycled by the distributor.

Mike to provide the CLC members with details on the delivery route – once finalized.

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With respect to stripped soil, NextEra neatly puts the soil back and re-contours those areas that were disturbed during the construction phase. NextEra will work with landowners and the County on how/if to reseed the disturbed areas.

Mike explained that any erosion control equipment put in place for construction (e.g. silt fences or hay bales used to filter residue out of the water entering streams) will be removed following inspections. Kris noted that the County has entered into a Road Use Agreement with NextEra that stipulates NextEra is required to repair any damages. Full repairs will occur when the project is complete.

4 Operations

Doug explained how a communication line connects each turbine to the central operations centre (staff on-site 24/7), which closely monitors, and as required, controls the operation of each turbine. The operations building will be notified if an event occurs outside a turbine's normal operating range and the turbine will shut down. Turbines can also be controlled remotely (laptops in service trucks) and from the central operations centre.

During the Operation Phase, turbines will require scheduled maintenance; either minor or major (i.e. oil changes, gearbox cleaning and lubrication, replacement of worn parts, torque checking after 500 hours of operations) and are scheduled in accordance with manufacturer requirements. If any unscheduled maintenance of a turbine is required (component failure, i.e. gearbox, generator) then the turbine will be taken out of service. The OEM (Original Equipment Manufacturer) is responsible for any breaks in service.

Doug described how operations decisions based on meteorological data include turbine shut down under icy or extreme weather. With respect to ice throw being a concern, research has shown that when the blade is not running then ice will not accumulate. Ice on the blades causes an imbalance of the blades, so it is NextEra's practice to shut down the turbine in an icing condition.

A CLC member asked if the blades could be heated, to avoid icing. Doug indicated he is unaware of such a mechanism.

Doug described other safety measures that would be used by NextEra during operations, such as:

- Spill prevention best practices (similar to those utilized during the Construction Phase). A third party contractor has been retained to resolve mediation within a 4 hour response time.
- Permanent high voltage warning signs, as part of the MOE requirements, will be installed at the transformer substation and elsewhere, as appropriate.

Amy indicated that the third CLC meeting will get into more detail on operation, monitoring and mitigation.

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Item Discussed

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5 Questions

The following summarizes the questions raised by the CLC members and the responses provided by the NextEra team (or representatives from the County – where noted).

Has NextEra had the challenge of building in the winter before?

- The team has built in the winter (e.g. South Dakota and Northern Alberta). It was cold, but manageable.

What happens to the turbines during a lightning storm?

- The turbines/nacelles are designed to ground electricity. As detailed in the Design and Operations report (available on NextEra's website), the lightning protection is designed according to IEC 61024 – "Lightning Protection of Wind Turbine Generators."

Is there a "rare earth" magnet to initiate the generator?

- The turbines will be wired to run electrically and not use a rare earth magnet to initiate the generator.

Will the turbines affect TV reception/service?

- No. The facility is being built to the necessary electrical codes, which includes measures such as insulation on cables, vertical clearance, etc.

Are there any pollutants/products in the turbine that are bad for the environment?

- The turbines require 40 gallons of synthetic oil for the gear box. The parts and products within the turbines are similar to what you would find in a car. The turbines have been designed with a triple containment system to prevent leaks (e.g. gearbox, nacelle and tower).

Some people have concerns about health issues – e.g. as a result of the frequency generated.

- This issue had been discussed at past meetings and as part of the project planning phase (reports available on NextEra's website). However, it could be further discussed at the fourth CLC meeting as part of the topic of monitoring and mitigation.

Are turbines set up one at a time or in batches? Same for commissioning?

- The turbines are constructed and commissioned one at a time. To commission the turbines, electricity is back fed through a backfeeder line.

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<p>When will operations start?</p> <ul style="list-style-type: none">• The goal is to have the turbines complete/up and running by the spring/early summer 2013.• Kris mentioned that the Samsung project is scheduled for the spring of 2013 and that the Capital Power project will not be operational until the fall of 2013. These two projects will consist of approximately 207 turbines spanning across the lakeshore. <p>Is there a beacon light atop each turbine? Will the light flash continuously? Can it face upward so it is not visible from the ground?</p> <ul style="list-style-type: none">• Turbines will be equipped with lights as per NAV CANADA requirements. They will blink continuously but typically Transport Canada does not require all turbines to have lighting. Not every turbine will require a beacon light (Next Era to confirm, but they estimate approximately half of the turbines will need to be equipped with lights).• As per the Design and Operations Plan, the lighting plan will be designed to ensure there is a balance between aviation safety and minimization of environmental/socio-economic effects, and reflects the most appropriate layout as per the Transport Canada guideline CAR 621.19 http://www.nexteraenergycanada.com/pdf/summerhaven/2011-06-13%20Design%20and%20Operations%20Report.pdf• A range of obstruction lighting scenarios can be used to comply with the local aviation regulations (i.e. low intensity: red 10 - 200cd/m²; medium intensity: red/white/dual 200 – 2,000 cd/m²; and medium intensity: red/white/dual 2,000 – 20,000 cd/m²). Transport Canada ultimately approves which turbines will be lit and visual impacts are reduced by synchronizing the lights to flash simultaneously.• Kris Franklin suggested that what NextEra had described is consistent with the Capital Power project which consists of 58 wind turbines, 456 ft. high, planned to extend from Port Dover to Selkirk. <p>Is community backlash to wind energy farms the norm?</p> <ul style="list-style-type: none">• In NextEra's experience, community backlash is not the norm but there are always concerns associated with change, new technology and a different landscape. Often people do not understand all the background work and studies which have gone into the projects in order to obtain the necessary approvals. In southern Ontario, concerns to some extent have been politically driven, where the community feels that they have a lack of control (e.g. with the release of the Green Energy Act in 2009).	<p>NextEra to provide additional details at the third CLC meeting on the specifics of NAV CANADA requirements and the lighting plan for Summerhaven.</p>

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<p>Will landowner's property values go down?</p> <ul style="list-style-type: none">• Many reports suggest no, and the issue has been discussed as part of the project planning phase. However Josie Hernandez offered to call any CLC members that needed more information on the subject.	<p>Josie to connect with new CLC members requiring more information re: property values.</p>
<p>What happens if a landowner agrees to have a turbine constructed on their property but then sells their property and the new owner does not want the turbine?</p> <ul style="list-style-type: none">• The conditions of the sale of the property must be that the turbine remains, as per the agreement signed between NextEra and the landowner.	
<p>How will property taxes be affected with the introduction of an industrial use on the land?</p> <ul style="list-style-type: none">• A CLC member mentioned a recent local newspaper article that discussed impacts on landowners (e.g. having a turbine on a farm property could change the land use from farm or residential to industrial, thereby raising the taxes). <p>http://www.sachem.ca/news/residents-discuss-dce-opg-turbines/</p> <ul style="list-style-type: none">• Doug explained that the landowner will continue to see each use separated on the bill, i.e. % for farm, % for residential, but they will also see a % for industrial if they have a turbine on their property. The charge for the industrial portion will be paid for by NextEra and this is written into NextEra's landowners lease agreement.• Kris reminded the CLC members that those additional taxes benefit the municipality.	
<p>What happened with respect to the bald eagle spotting near one of the turbine sites?</p> <ul style="list-style-type: none">• A bald eagle nest had been spotted near one of the turbine sites and as a precaution, and until additional research and field work is conducted, all work at the specific job site has ceased. NextEra is working with its environmental consultant (AECOM).	<p>NextEra to provide an update at the third CLC meeting regarding the spotting of an eagles nest.</p>
<p>Has NextEra been hiring local?</p> <ul style="list-style-type: none">• On the construction side, a good portion of the electricians have come from Hagersville and trucking staff have been hired locally. Mike noted that 95% of the labor will come from Ontario and much of the material needed to build the project will come from the immediate area, e.g. rebar, concrete, gravel.	

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What will happen to the Nanticoke Generating Station? Will it continue running as a back-up?

- As previously discussed at the first CLC meeting, NextEra is not involved in the decision making for Nanticoke. Wind and coal are used differently and not a substitute for one another.
- Kris mentioned that under the Ministry of Environment's Long-Term Energy Plan, the Province has an energy supply mix target, so several types of energy generation are required.
- Councillor Morison noted that the Nanticoke Generating Station is an economic asset (infrastructure/jobs) and will likely remain. The use could be modernized if coal were no longer a viable option.

How many homes can a megawatt power? Is Solar an option?

- 300 homes can be powered by 1 megawatt. A total of 32,000 homes will be powered as a result of the Summerhaven project.

NextEra also undertakes solar projects and strongly believe that solar is part of the future energy generation solution.

6 Tentative Items for Discussion at Future CLC Meetings

Amy explained that the next CLC will tentatively take place in May 2013. Meeting 3 will cover post construction activities; an update on operations and maintenance; monitoring; and mitigation measures. The fourth meeting will provide additional updates on items listed above, as well as provisions for decommissioning. The fourth meeting will be scheduled closer to the end of 2013.

7 Other

Amy noted that she had not received any requests for depositions.

8 Concluding Remarks

Amy explained that IBI Group would be preparing a draft set of minutes and that they would be circulated to the CLC members for review and comment. The final set of minutes will be emailed to the Committee and posted on NextEra's website:

<http://www.nexteraenergycanada.com/projects/conestogo.shtml>.

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

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

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