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DOCS 12340701v1

### ONTARIO ENERGY BOARD

**IN THE MATTER OF** the Ontario Energy Board Act, 1998, S.O. 1998, c. 15, Sch. B, as amended (the "**OEB Act**");

**AND IN THE MATTER** of an application by Goshen Wind, Inc. for an order under section 92 and subsection 96(2) of the OEB Act granting leave to construct an electricity transmission line and related facilities.

### APPLICATION FOR LEAVE TO CONSTRUCT

- 1. Goshen Wind, Inc. (the "Applicant") is a special purpose vehicle established for the development, construction and operation of the Goshen Wind Energy Centre ("GWEC"). The Applicant is a corporation constituted under the laws of New Brunswick. The Applicant is a wholly-owned subsidiary of NextEra Energy Canada, ULC, which in turn is an indirect wholly-owned subsidiary of NextEra Energy Resources LLC. NextEra Energy Canada, ULC was incorporated as an Alberta corporation in 2006, with its head office in the City of Toronto, Ontario. NextEra Energy Canada, ULC and NextEra Energy Resources, LLC through their respective wholly-owned subsidiaries, both carry on the business of developing, owning, and operating energy generation facilities.
- 2. As the owner and operator of the GWEC, the Applicant is a generator pursuant to section 56 of the OEB Act.
- 3. The Applicant is seeking the approval of the Ontario Energy Board (the "**Board**") to construct and operate a transmission interconnection facility (the "**Facility**", further described below) to connect the GWEC to the Independent Electricity System Operator ("**IESO**")-controlled grid. The GWEC is a proposed 102 MW wind energy generation facility, which was awarded a 20-year power purchase agreement under the Ontario Power Authority's ("**OPA**") Feed in Tariff program (the "**FIT Program**") in July 2011.
- 4. The GWEC and the Facility are being developed to further the provincial government's policy objective of increasing the amount of renewable energy generation being added to the provincial grid.
- 5. Both the GWEC and the Facility will be located in Huron County (the "**County**"). The location of the Facility was determined by a strong wind resource and interest expressed by local landowners. Construction of the Facility will be commensurate with construction of the GWEC. The Applicant intends to break ground on both the

GWEC and the Facility in October 2013, with an expected in-service date by the end of the third quarter of 2014.

- 6. The GWEC and the Facility are subject to the environmental screening process prescribed by Ontario Regulation 359/09, Renewable Energy Approvals under Part V.0.1 of the Act made pursuant to Environmental Protection Act, R.S.O. 1990, c. E.19 (the "REA Regulation"). Accordingly, the Applicant has conducted extensive consultation with interested stakeholders and the Renewable Energy Approval ("REA") Application was submitted to the Ministry of the Environment ("MOE") on February 1, 2013. The REA Application is expected to be deemed complete in April 2013. The Applicant expects to receive a decision from the MOE regarding its REA early in the fall of 2013. In addition to the environmental approvals, the Applicant has received the final interconnection reports issued by the IESO and Hydro One Networks Inc. ("HONI"), both of which conclude that the Facility, as proposed, is acceptable from a technical standpoint.
- 7. Accordingly, the Applicant hereby applies to the Board for:
  - an order granting leave to construct the Facility pursuant to Section 92 of the OEB Act; and
  - (ii) approval of the form of easement agreement that has been offered to landowners (the "Transmission Easement"), attached hereto as schedule E of the Transmission Easement Option Agreement pursuant to Section 97 of the OEB Act.
- 8. The following Schedules consist of the Applicant's pre-filed evidence:

Exhibit B, Tab 2, Schedule 2	Project Location
Exhibit B, Tab 2, Schedule 3	Single Line Diagram
Exhibit C, Tab 1, Schedule 2	Gantt Chart
Exhibit D, Tab 1, Schedule 2	Planning Profile Summary Table
Exhibit D, Tab 1, Schedule 3	Pole Configuration Drawings
Exhibit F, Tab 1, Schedule 2	Transmission Easement Option Agreement
Exhibit F, Tab 1, Schedule 3	License and Option Agreement (Interconnection)
Exhibit F, Tab 1, Schedule 4	License and Option Agreement (Substation)
Exhibit F, Tab 1, Schedule 5	Construction, Maintenance and Access Agreement (Transmission Guy Wire)

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Exhibit F, Tab 1, Schedule 6	Existing Utilities Map
Exhibit G, Tab 1, Schedule 2	Aboriginal Consultation Report
Exhibit G, Tab 1, Schedule 3	Final Public Meeting Documents
Exhibit G, Tab 1, Schedule 4	Transmission Line Consultation Report
Exhibit G, Tab 1, Schedule 5	Record of Consultation
Exhibit H, Tab 1, Schedule 2	System Impact Assessment
Exhibit I, Tab 1, Schedule 2	Customer Impact Assessment

9. The individuals below are the authorized representatives of the Applicant for the purpose of serving documents throughout this proceeding:

George Vegh Héloïse Apestéguy-Reux McCarthy Tétrault LLP Toronto Dominion Bank Tower 66 Wellington St. W Toronto, ON M5K 1E6 Nicole Geneau NextEra Energy Canada, ULC 390 Bay Street Suite 1720 Toronto ON M5H 2Y2

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hapest	eguyreux@mccarthy.ca		

Dated April 3<sup>rd</sup>, 2013 at Toronto, Ontario

Goshen Wind, Inc. by its counsel McCarthy Tétrault LLP

Per: Signed in the Original

George Vegh

Filed: 2013-04-03 Goshen Wind, Inc. Exhibit B Tab 2 Schedule 1 Page 1 of 1

#### PROJECT OVERVIEW DOCUMENTS

- 10. The GWEC consists of the wind turbines, the collector lines, the access roads and the interconnection with a newly constructed transforming substation (the "Substation") and ancillary equipment which will step-up the voltage from 34.5 kV to 115 kV, comprising a single 115/92/69 Wye-Delta step up transformer. More precisely, the Substation components, up to and including the pull-off tower, form part of the GWEC. The remaining Substation components are part of the Facility as defined below.
- 11. The GWEC is to be located in Huron County, Ontario in the municipalities of Bluewater and South Huron (the "**Municipalities**"), along the shore of Lake Huron south of the town of Zurich and east of Highway 21. The Facility will connect the GWEC to HONI's 115 kV L7S Circuit (the "L7S Circuit"), all within the County. A map showing the proposed layout for the Facility, including the route of the Transmission Line and the respective locations of the Substation and Breaker (as defined below), is attached as Exhibit B, Tab 2, Schedule 2.
- 12. The GWEC and the Facility encompass approximately 15,000 acres of privately owned land parcels, of which only 1,480 acres constitute the potential disturbance area for construction and includes the area with GWEC and Facility components on them. Land use is predominantly cash-crop agriculture, although some areas are pasture and there are pockets of wooded areas.
- 13. The Facility will consist of the following components:
  - (a) a 115 kV transmission line (the "Transmission Line") approximately 25 km in length, comprising a single circuit overhead line extending from the Substation to the point of interconnection (the "Connection Point") at an independent breaker (described below) that connects to the L7S Circuit;
  - (b) the Substation from the pull-off tower; and
  - (c) a newly constructed independent breaker (the "**Breaker**"), to be constructed and owned by GWEC connecting to the L7S Circuit. A single line diagram of the proposed Facility is included at Exhibit B, Tab 2, Schedule 3. The lands upon which the Facility is located are hereinafter referred to as the "**Corridor**".
- 14. Sixty-two (62) GE 1.6-100 wind turbines and one (1) GE 1.56-100 wind turbine will be constructed on a reinforced concrete foundation. Underground and overhead cables will interconnect individual turbines and eventually connect to the Substation. The operation of the wind turbines will be monitored remotely from an operations building located on or near the same parcel as the Substation, or within proximity to the wind towers.

Filed: 2013-04-03 Goshen Wind, Inc. Exhibit B Tab 2 Schedule 2 Pages: 2

### PROJECT LOCATION



Filed: 2013-04-03 Goshen Wind, Inc. Exhibit B Tab 2 Schedule 3 Pages: 2

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## SINGLE LINE DIAGRAM

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Preliminary, Not For Construction, Subject To Review & Approval By Transmission Provider

Filed: 2013-04-03 Goshen Wind, Inc. Exhibit B Tab 3 Schedule 1 Page 1 of 1

#### NEED FOR THE PROJECT

15. The GWEC and the Facility are being developed to further the provincial government's policy objective of increasing the amount of renewable energy generation being added to the provincial grid. In particular, the government's policy regarding renewable energy is outlined in the *Green Energy and Green Economy Act, 2009, S.O. 2009, c. 12,* which amended key pieces of legislation to promote the use and generation of electricity from renewable energy sources, including the OEB Act.

Filed: 2013-04-03 Goshen Wind, Inc. Exhibit C Tab 1 Schedule 1 Page 1 of 1

### PROJECT PLANNING

16. Construction of the Facility will be commensurate with the construction of the GWEC, beginning in October 2013, with a proposed in-service date by the end of the third quarter of 2014. The following is a list of milestone dates that are key components of our detailed construction schedule, as described in the Gantt Chart (attached as Exhibit C, Tab 1, Schedule 2):

Receipt of REA	September 2013
Receipt of Notice to Proceed from OPA	October 2013
Construction Mobilization <sup>1</sup>	October 2013
Construction of roads and foundations begins	November 2013
Construction Phase	October 2013 – July 2014
Erection of poles and transmission line	November 2013 – February 2014
Back-feed Power	May 2014
Commissioning & Start-Up	June 2014

- 17. This schedule is based on the Applicant's understanding of current timelines prescribed by the MOE relating to the REA process outlined in the REA Regulation and is dependent on the Applicant's receipt of regulatory approvals required for construction and operation of the GWEC and Facility in a timely manner.
- 18. Other critical constraints that may have an impact on the construction schedule include:
  - High wind days which can extend the turbine assembly timelines; and
  - Construction windows due to environmental constraints.

<sup>&</sup>lt;sup>1</sup> Construction office established, laydown yard prepared, labourers on-site.

Filed: 2013-04-03 Goshen Wind, Inc. Exhibit C Tab 1 Schedule 2 Pages: 2

### GANTT CHART

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#### **PROJECT DETAILS**

- 19. Please refer to paragraph 13 (Exhibit B, Tab 2, Schedule 1) for a description of the physical design of the project.
- 20. The proposed GWEC will interconnect to HONI's electrical system via the Facility, which is comprised of the Transmission Line, the Substation and the Breaker. A copy of the single line diagram of the Facility can be found in Exhibit B, Tab 2, Schedule 3. In particular, the Transmission Line will originate at the Substation and terminate at the Breaker, to be built adjacent to the L7S Circuit. Sections of the Transmission Line will be constructed on easements acquired from private land owners and sections of the Municipal right-of-way. Please see Exhibit B, Tab 2, Schedule 2 for a map illustrating the route of the line.
- 21. The Facility will be built above ground. Please see Exhibit D, Tab 1, Schedule 2 for a table summarizing clearances to the land profile.
- 22. In order to minimize the physical and visual impact of the Facility, a mono-pole configuration has been chosen for the Transmission Line. All poles will be either round wood, laminated wood, steel or round concrete poles, designed per all Applicable Codes (defined below) and approximately 30 meters in height above ground. These poles will utilize vertical or triangular framing, with braced polymer post insulators. There will be one 1272 or 1351 ACSR conductor per phase, as well as an optical ground wire (OPGW) installed for both line communications and fault-shielding purposes. Please see Exhibit D, Tab 1, Schedule 3 for a typical pole configuration drawing.

Filed: 2013-04-03 Goshen Wind, Inc. Exhibit D Tab 1 Schedule 2 Pages: 2

## PLANNING PROFILE SUMMARY TABLE

Clearance Description	Code & Regulation	Vertical Clearance in m
Vehicular Clearance	CSA C22.3 No.1 Table 2	6.2*
Over U/G Pipes	CSA C22.3 No.1 Table 2	6.2*
Pedestrian / ATV	CSA C22.3 No.1 Table 2	4.7*
Railroad	CSA C22.3 No.1 Table 2	8.4
Building Crossing	CSA C22.3 No.1 Table 9	4.2
Lighting, Sign, etc.	CSA C22.3 No.1 Table 9	4.2
Bridge Crossing	CSA C22.3 No.1 Table 10	3.5
Provincial HWY	MTOD-2245.020	6.0
Provincial Vehicular	MTOD-2245.020	5.8
Provincial Pedestrian	MTOD-2245.020	4.3
Provincial Railroad Crossing	MTOD-2245.020	8.7
Water Crossing Class 0	CSA C22.3 No.1 Table 3	5.5
Water Crossing Class 1	CSA C22.3 No.1 Table 3	6.7
Water Crossing Class 2	CSA C22.3 No.1 Table 3	8.7
Water Crossing Class 3	CSA C22.3 No.1 Table 3	10.7
Water Crossing Class 4	CSA C22.3 No.1 Table 3	12.7
Water Crossing Class 5	CSA C22.3 No.1 Table 3	14.7
Water Crossing Class 6	CSA C22.3 No.1 Table 3	16.7

Minimum Vertical Clearances at Maximum Sag for Goshen Transmission Line

\*0.7 meter is included to account for mean annual maximum snow depth for the area

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# POLE CONFIGURATION DRAWINGS

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### DESIGN SPECIFICATIONS AND OPERATIONAL DATA

- 23. The GWEC will include the erection of a permanent operations and maintenance ("**O&M**") facility, or a suitable existing facility will be leased within proximity to the GWEC. The O&M facility will deal with operational issues related to the GWEC and the Facility. The O&M facility will be staffed, or have someone on-call, at all times.
- 24. The Facility will include installation of maintenance, protection and control systems capable of minimizing the severity and extent of disturbances to the Transmission Line. The GWEC and the Facility will be monitored from the O&M building as well as remotely from an operations center owned by the Applicant's parent company, NextEra Energy Resources, LLC, in Juno Beach, Florida.
- 25. Visual Transmission Line inspections will be scheduled at least once every year to ensure continued compliance with all applicable codes and standards. Detailed thermography scans will be conducted on critical connection points immediately after energization as well as at least once every year during the GWEC's operational life.
- 26. The Facility will be designed to meet technical and safety specifications and standards outlined in the Transmission System Code, the Ontario Electric Safety Code and the IESO Market Rules (collectively, the "**Applicable Codes**").<sup>2</sup> The Facility will be designed to meet or exceed the more stringent of the Applicable Code requirements in each of the areas listed below:
  - (i) Cable tension criteria
  - (ii) Cable and conductor sagging criteria
  - (iii) Structure loading criteria
  - (iv) Load and strength factors
  - (v) Vertical clearance requirements
  - (vi) Horizontal clearance requirements
  - (vii) Galloping recommendations.
- 27. The table below lists the documents and permits that must be obtained before the Project can be implemented, the reason why these are required, and how they relate to specific components of the Project.

<sup>&</sup>lt;sup>2</sup> The Applicant will also meet the ANSI Standards for all components of the GWEC and Facility for which it is responsible.

Filed: 2013-04-03 Goshen Wind, Inc. Exhibit E Tab 1 Schedule 1 Page 2 of 2

Documents and Permits Required	Reason Required, a	Relationship to Project	Issuer of Permit
Renewable Energy Approval	The Facility is part of a renewable energy project in Ontario, subject to O. Reg. 359/09.	Applies to all of GWEC and the Facility.	Ministry of Environment (Ontario)
County/Municipal Road Use Agreement	The Facility is partially located in Municipal rights-of-way.	Applies to collection and transmission facilities for GWEC and the Facility, respectively.	Huron County; Municipalities of Bluewater and South Huron
Species at Risk	If the Facility is determined to impact any species at risk or their habitat, a permit will be required.	Linear facility will require some removal of trees, which have been assessed per provincial guidelines and local by- laws. A SAR report has been prepared and does not identify any species- at-risk that are affected by the Facility. Therefore, a SAR permit is not anticipated to be required.	Ministry of Natural Resources (Ontario)
Ausable Bayfield Conservation Authority Permit (Development, Interference with Wetlands, and Alterations to Shorelines and Watercourses Regulation)	Parts of the Facility are located within the Ausable Bayfield Conservation Authority's regulatory floodplain.	Applies to structures which may have an impact on Conservation Authority's regulated floodplain; initial discussions with the Ausable Bayfield Conservation Authority indicate that transmission structures will likely not have an impact and thus would not require permits.	Ausable Bayfield Conservation Authority
Upper Thames River Conservation Authority (Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Regulation)	Parts of the Facility are located within the Upper Thames River Conservation Authority's area of jurisdiction.	Applies to the eastern 6 kms of the Facility. Permit not likely to be required however, discussions with Upper Thames River Conservation Authority are ongoing.	Upper Thames River Conservation Authority

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### LAND MATTERS

### Description of Land and Land Rights

- 28. The Applicant has acquired rights to approximately 22.5 kilometers of private lands that are required for the Transmission Line. All affected landowners were offered a standard form transmission easement option agreement ("**Transmission Easement Option Agreement**"). The form of Transmission Easement Option Agreement offered by the Applicant is attached at Exhibit F, Tab 1, Schedule 2. The Transmission Easement is at schedule E of the Option Agreement.
- 29. The Corridor will have a typical width between approximately 15 and 30 metres. Typical easement cross sections, when on private land, will be placed as close to Municipal rights-of-way or the boundary of Lot and Concessions as is reasonable. Poles placed within the Municipal rights-of-way will be located to minimize impact to adjacent landowners not hosting infrastructure (the "Adjacent Landowners"). If poles are placed within the Municipal rights-of-way, additional aerial overhang, guy and anchor and temporary construction easements may be acquired from the Adjacent Landowners under certain circumstances.
- 30. The Applicant has had extensive discussions regarding the Transmission Line and the Transmission Easement with all of the landowners along the Corridor, including Adjacent Landowners. A report summarizing the consultations for the Facility is attached as Exhibit G, Tab 1, Schedule 4.
- 31. Most construction activities (including road, river crossings, etc.) will take place within the Corridor. Some activities, such as conductor pulls, will require additional rigging outside of the Corridor. Temporary pull sites (typically 30 m x 30 m) will be established at major inflection points along the Transmission Line route to set up tensioning and wire reel equipment during the conductor pull process.
- 32. Approximately two and five tenths (2.5) kilometres of the Transmission Line is planned to be located in the Municipal rights-of-way. Please refer to Exhibit B, Tab 2, Schedule 2 for a map illustrating the location of these Municipal rights-of-way. A road use agreement will be entered into between the Applicant and the affected Municipalities, which will address the Applicant's access to the Municipal rights-of-way.
- 33. The Applicant has entered into an option to acquire a lease and rights-of-way ("License and Option Agreement (Interconnection)") with a landowner for the land required at the point of interconnection for the Breaker. The form of License and Option Agreement (Interconnection) is attached hereto as Exhibit F, Tab 1, Schedule 3.
- 34. The Applicant has entered into a license and option agreement ("**License and Option Agreement (Substation)**") with a landowner for the land required for the Substation. The form of License and Option Agreement (Substation) is attached hereto as Exhibit F, Tab 1, Schedule 4.

- 35. Care will be taken during detailed design to place poles in the most accessible, upland areas available. Construction crews will utilize existing roads and bridges, including making improvements to them when necessary, wherever possible to avoid excessive land disturbance.
- 36. The tables below list publicly available information that identifies the parcels of land that, as a whole, are or may be required for the proposed Facility. The tables include possible crossings known to the Applicant derived from PIN searches. The Applicant has surveyed the Corridor, verified crossings and is in the process of contacting external parties to arrange crossing agreements. Table A describes the privately-owned land parcels that will have Transmission Line infrastructure built directly on them. Table B describes the Municipal right-of-way parcels with Transmission Line infrastructure. Table C describes privately-owned land parcels with respect to which easement agreement negotiations between the Applicant and landowners are ongoing. Table D lists properties not hosting infrastructure which are adjacent to Municipal right-of-way parcels with Transmission Line infrastructure.

PIN	LEGAL DESCRIPTION	Easement on Title	Nature of Impact	Crossing Type
412580026	LT 13 CON 7 STEPHEN; MUNICIPALITY OF SOUTH HURON	No other easement on title	Infrastructure located on property line	Possible Jule-Du- Mar Oils Limited crossing
412580216	PART LOT 11 CONCESSION 7 STEPHEN AS IN R277879; LT 12 CON 7 STEPHEN SAVE AND EXCEPT PT 1, 22R5753 MUNICIPALITY OF SOUTH HURON	No other easement on title	Infrastructure located on property line	Possible Bell Canada and Right of way crossing
412580087	LT 13 CON 6 STEPHEN; PT LT 14 CON 5 STEPHEN PT 1, 22R1860; S/T EXECUTION 94- 0299, IF ENFORCEABLE; S/T EXECUTION 94-0318, IF ENFORCEABLE; MUNICIPALITY OF SOUTH HURON	No other easement on title	Infrastructure located on property line	Possible Oil and Gas and Water Main crossing
412580088	N 1/2 LT 12 CON 6 STEPHEN; MUNICIPALITY OF SOUTH HURON	No other easement on title	Overhang	None
412580160	PT LT 12 CON 5 STEPHEN AS IN R308932; MUNICIPALITY OF SOUTH HURON	No other easement on title	Infrastructure located on property line	Possible Watercourse, Ausable Bayfield, Water Main crossing

Table A – Privately-Owned Land Parcels with	Transmission Line Infrastructure
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PIN	LEGAL DESCRIPTION	Easement on Title	Nature of. Impact	Crossing Type
412590005	PT LT 13 CON 4 STEPHEN AS IN R291892; MUNICIPALITY OF SOUTH HURON	No other easement on title	Infrastructure located on property line	None
412590006	PT LT 12 CON 4 STEPHEN AS IN R235695; MUNICIPALITY OF SOUTH HURON	No other easement on title	Infrastructure located on property line	Possible Jule-Du- Mar Oils Limited, Hydro One Bell Canada crossing
412590013	S 1/2 LT 13 CON 3 STEPHEN; PT LT 12 CON 3 STEPHEN AS IN R321529; MUNICIPALITY OF SOUTH HURON	No other easement on title	Infrastructure located on property line	Possible Bell Canada, water main, Filton Realty and oil and gas crossing
412590018	LT 13 CON 2 STEPHEN; MUNICIPALITY OF SOUTH HURON	No other easement on title	Infrastructure located on property line	None
412590019	LT 12 CON 2 STEPHEN; MUNICIPALITY OF SOUTH HURON	No other easement on title	Infrastructure located on property line	Possible oil and gas, Filton Realty and Union Gas crossing
412590029	LT 12 CON 1 STEPHEN W OF RAILWAY; S/T R26807 MUNICIPALITY OF SOUTH HURON	No other easement on title	Infrastructure located on property line	Possible Bell Canada and Filton Realty crossing
412590028	LT 12 CON 1 STEPHEN E OF RAILWAY EXCEPT HWP2028; S/T R26807 MUNICIPALITY OF SOUTH HURON	No other easement on title	infrastructure located on property line	Possible Bell Canada, Filton Realty and Hydro One crossing
412610042	LT 8 CON 1 USBORNE EXCEPT R329140 & R61827; PT LT 8 CON 2 USBORNE AS IN UTA9626; S/T R291672, IF ANY; S/T R77813; MUNICIPALITY OF SOUTH HURON	No other easement on title	Infrastructure located on property line	Possible 1047563 Ontario Inc. and Hydro One crossing
412610043	PT LT 7 CON 1 USBORNE AS IN R266796; S/T R76252; MUNICIPALITY OF SOUTH HURON	No other easement on title	Infrastructure located on property line	Possible Hydro One and Union Gas crossing
412610034	PT LT 8 CON 2 USBORNE AS IN R308721; MUNICIPALITY OF SOUTH HURON	No other easement on title	Infrastructure located on property line	None
412610033	LT 7 CON 2 USBORNE; S/T R76258; MUNICIPALITY OF SOUTH HURON	No other easement on title	Infrastructure located on property line	Possible Hydro One crossing

PIN	LEGAL DESCRIPTION	Easement on Title	Nature of Impact	Crossing Type
412610061	PT LT 8 CON 3 USBORNE AS IN R156581; MUNICIPALITY OF SOUTH HURON	No other easement on title	Infrastructure located on property line	Possible Hydro One, Union Gas and Bell Canada crossing
412610024	LT 7 CON 3 USBORNE; MUNICIPALITY OF SOUTH HURON	No other easement on title	Infrastructure located on property line	None
412610011	PT LT 8 CON 4 USBORNE; PT LT 9 CON 4 USBORNE AS IN R153596 W OF UTA9687; MUNICIPALITY OF SOUTH HURON	No other easement on title	Infrastructure located on property line	Possible Hydro One crossing
412610014	PT LT 7 CON 4 USBORNE AS IN R299225; MUNICIPALITY OF SOUTH HURON	No other easement on title	Infrastructure located on property line	None
412610010	PT LT 10 CON 4 USBORNE; PT LT 9 CON 4 USBORNE; PT LT 8 CON 4 USBORNE AS IN R251089; S/T INTEREST IN THE MUNICIPALITY; MUNICIPALITY OF SOUTH HURON	No other easement on title	Infrastructure located on property line	Possible Municipality of South Huron, Bell Canada crossing
412610013	PT LT 7 CON 4 USBORNE AS IN R291672; MUNICIPALITY OF SOUTH HURON	No other easement on title	Infrastructure located on property line	None
412610016	PT LT 6 CON 4 USBORNE AS IN R288143; MUNICIPALITY OF SOUTH HURON	No other easement on title	Infrastructure located on property line	Possible Fibrop Mines & Oils crossing
412620004	LT 7 CON 5 USBORNE; LT 8 CON 5 USBORNE; LT 6 CON 6 USBORNE; PT LT 6 CON 5 USBORNE AS IN R288140; MUNICIPALITY OF SOUTH HURON	No other easement on title	infrastructure located on property line	Possible watercourse, Exeter Produce and Storage Company Limited and Fibrop Mines & Oils crossing
412620090	LT 6 CON 7 USBORNE; MUNICIPALITY OF SOUTH HURON	No other easement on title	Infrastructure located on property line	Possible Hydro One, water course crossing
412620075	PT LT 6 CON 8 USBORNE AS IN R326642; MUNICIPALITY OF SOUTH HURON	No other easement on title	Infrastructure located on property line	Possible Hydro One crossing

PIN	LEGAL DESCRIPTION	Easement on Title	Nature of Impact	Crossing Type
412620054	LT 6 CON 9 USBORNE EXCEPT R51349; LT 7 CON 9 USBORNE EXCEPT PT 1, 22R297 & PT 5, 22R1145; MUNICIPALITY OF SOUTH HURON	No other easement on title	Infrastructure located on property line	None
412650008	LT 6 CON 11 USBORNE; MUNICIPALITY OF SOUTH HURON	No other easement on title	Infrastructure located on property line	None
412650007	LT 7 CON 11 USBORNE; MUNICIPALITY OF SOUTH HURON	No other easement on title	Infrastructure located on property line	None
412650014	PT LT 7 CON 12 USBORNE AS IN R121471; MUNICIPALITY OF SOUTH HURON	No other easement on title	Infrastructure located on property line	None
412650006	LT 8 CON 11 USBORNE; MUNICIPALITY OF SOUTH HURON	No other easement on title	Infrastructure located on property line	None
412650013	PT LT 8 CON 12 USBORNE AS IN R299705; S/T EXECUTION 99-0147, IF ENFORCEABLE; MUNICIPALITY OF SOUTH HURON	No other easement on title	Infrastructure located on property line	None
412650005	PT LT 9 CON 11 USBORNE AS IN R240775; MUNICIPALITY OF SOUTH HURON	No other easement on title	Infrastructure located on property line	None
412650004	PT LT 9 CON 11 USBORNE AS IN R338120; MUNICIPALITY OF SOUTH HURON	No other easement on title	Infrastructure located on property line	None
412650011	PT LT 9 CON 12 USBORNE AS IN R268825; MUNICIPALITY OF SOUTH HURON	No other easement on title	Infrastructure located on property line	None
412650003	PT LT 10 CON 11 USBORNE AS IN R303034; MUNICIPALITY OF SOUTH HURON	No other easement on title	Infrastructure located on property line	None

PIN		Easement on Title	Nature of Impact	Crossing Type
412650009	PT LT 10 CON 12 USBORNE AS IN R185649; DESCRIPTION MAY NOT BE ACCEPTABLE IN FUTURE AS IN R185649 RE LAST COURSE; MUNICIPALITY OF SOUTH HURON	Lease registered on title	Infrastructure located on property line	Possible Hydro One, Bell Canada and Amoco Petroleum Company Ltd. crossing
412660036	PT LT 11 CON 12 USBORNE AS IN R241892; MUNICIPALITY OF SOUTH HURON	No other easement on title	Infrastructure located on property line	None
412660035	PT LT 11 CON 12 USBORNE; PT LT 12 CON 12 USBORNE; AS IN R153290; MUNICIPALITY OF SOUTH HURON	No other easement on title	Infrastructure located on property line	Possible Hydro One crossing
412650054	PT LT 10 CON 13 USBORNE AS IN R27075; S/T EXECUTION 99-0147, IF ENFORCEABLE; MUNICIPALITY OF SOUTH HURON	No other easement on title	Infrastructure located on property line	Possible watercourse, Bell Canada, Hydro One crossing
412660040	PT LT 11 CON 14 USBORNE AS IN R279217; S/T UTA10109; MUNICIPALITY OF SOUTH HURON	No other easement on title	Infrastructure located on property line	Possible Hydro One crossing

# Table B – Municipal right-of-way parcels with Transmission Line Infrastructure

PIN	LEGAL DESCRIPTION	Easement on Title	Nature of Impact	Crossing Type
412580191	RDAL BTN CONS 6 & 7 STEPHEN ABUTTING LTS 11 TO 20 AKA KING ST; MUNICIPALITY OF SOUTH HURON	No other easement on title	Infrastructure located on property	None
412590001	RDAL BTN CONS 4 & 5 STEPHEN ABUTTING LTS 11 TO 15; MUNICIPALITY OF SOUTH HURON	No other easement on title	Infrastructure located on property	None
412590033	RDAL BTN CONS 2 & 3 STEPHEN ABUTTING LTS 11 TO 15; MUNICIPALITY OF SOUTH HURON	No other easement on title	Infrastructure located on property	None

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PIN	LEGAL DESCRIPTION	Easement on Title	Nature of Impact	Crossing Type
412610001	RDAL BTN TWPS OF STEPHEN & USBORNE; PT RDAL BTN LTS 5 & 6 CON 1 STEPHEN; PT RDAL BTN LTS 10 & 11 CON 1 STEPHEN; PT RDAL BTN LTS 5 & 6 CON 1 USBORNE; PT LT 10 CON 1 USBORNE; PT LT 9 CON 1 USBORNE; PT LT 8 CON 1 USBORNE; PT LT 7 CON 1 USBORNE; PT LT 6 CO	Lease registered on title	Infrastructure located on property	Possible Bell Canada crossing
412610003	RDAL BTN CONS 2 & 3 USBORNE ABUTTING LTS 1 TO 10; MUNICIPALITY OF SOUTH HURON	No other easement on title	Infrastructure located on property	None
412610012	PT LT 9 CON 4 USBORNE; PT LT 8 CON 4 USBORNE; PT LT 7 CON 4 USBORNE; PT LT 6 CON 4 USBORNE AS IN UTA9687 & UTA9736; MUNICIPALITY OF SOUTH HURON	No other easement on title	Infrastructure located on property	None
412610017	PT LT 8 CON 4 USBORNE; PT LT 9 CON 4 USBORNE AS IN R153596 E OF UTA9687; MUNICIPALITY OF SOUTH HURON	No other easement on title	Infrastructure located on property	None
412610035	PT LT 6 CON 4 USBORNE; PT LT 7 CON 4 USBORNE; MUNICIPALITY OF SOUTH HURON	No other easement on title	Infrastructure located on property	None
412610018	E 1/2 LT 7 CON 4 USBORNE EXCEPT R291672; MUNICIPALITY OF SOUTH HURON	No other easement on title	Infrastructure located on property	None
412620001	RDAL BTN CON 4 & CON 5 USBORNE ABUTTING LTS 1 TO 10; MUNICIPALITY OF SOUTH HURON	No other easement on title	Infrastructure located on property	None
412620025	RDAL BTN CON 6 & CON 7 USBORNE ABUTTING LTS 1 TO 10; MUNICIPALITY OF SOUTH HURON	No other easement on title	Infrastructure located on property	None
PIN	LEGAL DESCRIPTION	Easement on Title	Nature of Impact	Crossing Type
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412620046	FIRSTLY: RDAL BTN CON 8 & CON 9 USBORNE ABUTTING LTS 1 TO 10; PT LT 1 CON 8 USBORNE; PT LT 2 CON 8 USBORNE; PT LT 3 CON 8 USBORNE; PT LT 4 CON 8 USBORNE; PT LT 5 CON 8 USBORNE; PT LT 5 CON 8 USBORNE PTS 34, 35, 36, 37, 38, 39 & 40, 22R1145; PT LT 6 CON 8 USBORNE PT 41, 22R11	Lease registered on title	Infrastructure located on property	Possible Drainage System crossing
412620062	RDAL BTN LT 5 & LT 6 CON 9 USBORNE; RDAL BTN LT 5 & LT 6 CON 10 USBORNE; MUNICIPALITY OF SOUTH HURON	No other easement on title	Infrastructure located on property	None
412650001	RDAL BTN CON 10 & 11 USBORNE ABUTTING LTS 3 TO 10; MUNICIPALITY OF SOUTH HURON	No other easement on title	Infrastructure located on property	None
412660002	FIRSTLY; PT LT 10 CON 12 USBORNE HWP1700, EXCEPT PTS 1, 2 & 3, 22R340; RDAL BTN LTS 10 & 11 CON 11 USBORNE; RDAL BTN LTS 10 & 11 CON 12 USBORNE; RDAL BTN LTS 10 & 11 CON 13 USBORNE; RDAL BTN CONS 13 & 14 USBORNE; RDAL BTN CONS 14 & SOUTH EAST BOUNDARY	No other easement on title	Infrastructure located on property	None
412660003	RDAL BTN LTS 22 & 23 CON SOUTH THAMES ROAD USBORNE S OF HWP2238; RDAL BTN CONS 12 & 13 USBORNE ABUTTING LTS 11 TO 18; MUNICIPALITY OF SOUTH HURON	No other easement on title	Infrastructure located on property	None

PIN	LEGAL DESCRIPTION	Easement on Title	Nature of Impact	Crossing Type
412650012	RDAL BTN CONS 12 & 13 USBORNE; RDAL BTN LTS 8 & 9 CON SOUTH EAST BOUNDARY USBORNE; FIRSTLY; PT LT 9 CON 12 USBORNE; PT LT 8 CON 12 USBORNE; PT LT 7 CON 12 USBORNE; PT LT 10 CON 13 USBORNE; PT LT 9 CON 13 USBORNE; PT LT 9 CON 13 USBORNE; PT LT 9 CON SOU	Lease registered on title	Infrastructure located on property	Possible The Corporation of the County of Huron crossing

## Table C – Pending Land Along Route

PIN	LEGAL DESCRIPTION	Ease on Title	Nature of Impact	Crossing Type
412580159	LT 13 CON 5 STEPHEN; MUNICIPALITY OF SOUTH HURON	No other easement on title	Overhang	Possible Jule- Du-Mar Oils Limited crossing
412590004	PT LT 13 CON 4 STEPHEN AS IN R230588; MUNICIPALITY OF SOUTH HURON	No other easement on title	Overhang	None
412590027	LT 13 CON 1 STEPHEN W OF RAILWAY; S/T R26808, R77664; MUNICIPALITY OF SOUTH HURON	No other easement on title	Overhang	Possible Bell Canada, Filton Realty and Hydro One crossing
412590024	PT LT 11 CON 1 STEPHEN; PT LT 12 CON 1 STEPHEN; PT LT 13 CON 1 STEPHEN; PT LT 14 CON 1 STEPHEN; PT LT 15 CON 1 STEPHEN AS IN R278193;SURFACE ONLY; S/T R335465; MUNICIPALITY OF SOUTH HURON	No other easement on title	Infrastructure located on property	Possible water course, The Corporation of the Township of Stephen, Filton Realty, J.B. Brian and Associates and Railamerica
412590026	LT 13 CON 1 STEPHEN E OF RAILWAY EXCEPT HWP2049; S/T R26808, R77664; MUNICIPALITY OF SOUTH HURON	No other easement on title	Overhang	Possible Bell Canada, Filton Realty and Hydro One crossing
412610040	PT LT 8 CON 1 USBORNE AS IN R335652; S/T RIGHTS IN R335652; MUNICIPALITY OF	No other easement on title	Overhang	None

PIN	LEGAL DESCRIPTION	Ease on Title	Nature of Impact	Crossing Type
	SOUTH HURON			
412650070	LT 5 CON 11 USBORNE; RDAL BTN LTS 5 & 6 CON 11 USBORNE CLOSED BY UTA11059; MUNICIPALITY OF SOUTH HURON	No other easement on title	Overhang	None
412650024	PT LT 11 CON SOUTH EAST BOUNDARY USBORNE; MUNICIPALITY OF SOUTH HURON	No other easement on title	Overhang	None
412650025	PT LT 10 CON SOUTH EAST BOUNDARY USBORNE; MUNICIPALITY OF SOUTH HURON	No other easement on title	Overhang	None

# Table D – Properties without Transmission Infrastructure Adjacent to Municipal Right-of-Way Parcels with Transmission Line Infrastructure

PIN	LEGAL DESCRIPTION	Ease on Title	Nature of Impact	Crossing Type
412620101	LOT 5, CONCESSION 9, USBORNE SAVE & EXCEPT PART 6, PLAN 22R-1145, MUNICIPALITY OF SOUTH HURON	No other easement on title	Adjacent	none
412620061	S1/2 LT 6 CON 10 USBORNE; MUNICIPALITY OF SOUTH HURON	No other easement on title	Adjacent	Possible Hydro One crossing
412650057	PT LT 5 CON SOUTH EAST BOUNDARY USBORNE PTS 1 & 2, 22R2806; MUNICIPALITY OF SOUTH HURON	No other easement on title	Adjacent	none

37. In lieu of executing a separate damage release form, the Applicant has included damage release and waiver language in the License and Option Agreement (Interconnection), License and Option Agreement (Substation), Transmission Easement Option Agreement, and Construction, Maintenance and Access Agreement (Transmission Guy Wire).<sup>3</sup>

<sup>&</sup>lt;sup>3</sup> Please refer to (i) sections 1.4, 2.5 and 2.9 of the License and Option Agreement (Interconnection); (ii) sections 3.5 and 4.1 of Schedule C to the License and Option Agreement (Interconnection); (iii) sections 1.4, 2.5 and 2.9 of the License and Option Agreement (Substation); (iv) sections 3.5 and 4.1 of Schedule C to the License and Option Agreement (Substation); (iv) sections 3.5 and 4.1 of Schedule C to the License and Option Agreement;

#### Alternatives Considered

38. The Applicant employed a range of criteria in selecting the route for connecting the Facility to the L7S Circuit. The following paragraphs summarize the process that the Applicant used and the rationale that the Applicant relied upon for selecting the route for the Facility.

#### Selection Process

- 39. In selecting the preferred route for connecting the Facility to the L7S Circuit, the Applicant consulted extensively with members of the community, municipal officials, HONI and other stakeholders. Particular consultation, carried out as part of the Applicant's REA process, included issuing informational notices, delivering presentations, participating in meetings with local government officials and holding public meetings and information sessions in the community. A detailed description of the Applicant's community and stakeholder consultation efforts is set out in the Transmission Line Consultation Report included as Exhibit G, Tab 1, Schedule 4.
- 40. Through these consultations, the Applicant shared information and received feedback from stakeholders regarding the potential transmission routes. This feedback, together with the Applicant's extensive technical review of proposed routes and environmental constraints identified through the REA process, helped identify the transmission options available to the Applicant and specific concerns along each route. To address stakeholder concerns and the constraints identified through the REA study process, the Applicant has made refinements along the route to the extent feasible.

#### Rationale for Selecting the Proposed Transmission Route

- 41. The Facility includes a 115 kV Transmission Line that runs approximately 25 km from the pull-off tower at the proposed Substation to the L7S Circuit in the Municipality of South Huron. As previously described in Exhibit B, Tab 2, Schedule 1, the Facility also includes the Breaker (a disconnect switch, a breaker and an entrance structure) adjacent to the L7S Circuit in the Municipality of South Huron.
- 42. Early in the development process, it was determined that the least environmental and social impact from the overhead Transmission Line would occur if the Transmission Line ran along the back side of certain properties and within an existing Municipal right-of-way (upper or lower tier municipal road). The Applicant gathered data regarding land use along the entire Corridor and chose to site approximately fifteen (15) km of transmission line along the back side of private property, seven and one-half (7.5) km of transmission line on private property that is adjacent to the Municipal right-of-way, and two and five tenths (2.5) km of transmission within the Municipal right-of-way. This combination of transmission route is the most direct route from the Substation to the Connection Point, with the fewest number of residences and

(vi) sections 6, 7 and 24 of Schedule E to the Transmission Easement Option Agreement and (vii) sections 1(b) and 14 of the Construction, Maintenance and Access Agreement (Transmission Guy Wire).

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commercial/industrial customers along the route. In addition, several other roads were considered as corridors or routes but were disqualified due to higher concentrations of residences, large amounts of pre-existing infrastructure in the right-of-way or unacceptable environmental impacts.

- 43. Accordingly, the Applicant's proposed Transmission Line route is comprised of a Corridor that will:
  - begin on Lot 13, Concession 7, Municipality of South Huron and run on private property from the site of the Substation east for a distance of approximately 7.4 km,
  - cross County Road 4 (London Road) and continue east on private property for a distance of approximately 4.3 km,
  - (iii) while remaining on private property and on the west side of Mctaggart Line, turn south and run for a distance of approximately 0.9 km,
  - (iv) while remaining on the north side of Crediton Road and on private property, turn east, cross over Mctaggart Line, and run for a distance of approximately 4.2 km,
  - (v) cross over to the south side of Crediton Road and then continue east within the municipal right of way for a distance of approximately 1 km,
  - (vi) cross over to the north side of Crediton Road and then continue east within the municipal right of way for a distance of approximately 1.1 km,
  - (vii) continue east, cross Sunshine Line, onto private property and run along the back-country for a distance of approximately 1 km,
  - (viii) turn north and continue on private property for a distance of approximately 2.1 km,
  - (ix) cross over Kirkton Road, turn east onto private property and run for a distance of approximately 1.1 km,
  - turn southeast and cross-over Plugtown Line and Dump Road onto private property and run east for a distance of approximately 1.4 km,
  - (xi) continue east, within the municipal right of way, for a distance of approximately 0.2 km,
  - (xii) turn north, cross Dump Road terminating at the Connection Point located on Lot 11, Concession 14.
- 44. Within this Corridor, the Applicant has considered the options available to it with respect to the potential use of Municipal rights-of-way, having regard to existing facilities within those Municipal rights-of-way as well as the potential to use adjacent

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private easements on either side of the roads. The proposed Transmission Line route has been designed based on analysis of these options as well as related consultations regarding affected landowners and stakeholders.

## **Corridor Land Acquisition Process and Consultations with HONI**

45. The Applicant found that there are existing HONI distribution poles within the Municipal rights-of-way along approximately 3.6 km or 14% of the Transmission Line route. For approximately four months, the Applicant consulted with HONI concerning the Applicant's interest in co-locating these portions of the proposed Transmission Line along HONI's distribution poles and structures through a joint use arrangement. HONI advised that it has instituted an internal policy under which it will not accommodate requests for joint use of distribution poles to support transmission lines rated above 50 kV. Therefore, for the referenced 3.6 km, the Applicant's transmission components are located on the opposite side of the road either within municipal right-of-way or on private easement. Please see Exhibit F, Tab 1, Schedule 6 for a map illustrating the location of existing HONI overhead distribution and transmission.

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## TRANSMISSION EASEMENT OPTION AGREEMENT

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#### - TRANSMISSION EASEMENT OPTION AGREEMENT

THIS TRANSMISSION EASEMENT OPTION AGREEMENT ("Agreement") is made as of the \_\_\_\_\_ day of \_\_\_\_\_\_ 2013 (hereinafter referred to as the "Effective Date") by and between Goshen Wind, Inc., a company incorporated pursuant to the laws of the Province of New Brunswick and authorized to conduct business in the Province of Ontario (hereinafter, referred to as "Developer") and \_\_\_\_\_\_, as joint tenants, (hereinafter, referred to as "Owner"), who are sometimes individually referred to herein as a "Party" and collectively, as "Parties".

WHEREAS, Owner is the registered and beneficial owner of the lands and premises legally described in Schedule A attached hereto (the "Property"); and

AND WHEREAS, Developer is a wind power developer and operator and is currently developing a wind power project known as the Goshen Wind Energy Centre wind project (the "Project") in the vicinity of the Property; and

AND WHEREAS, Developer and Owner have agreed to enter into this Agreement for the purpose of granting to Developer an exclusive option to acquire an easement and right-ofway over, along, across and through a portion of the Property for the purposes of erecting, constructing, replacing, relocating, improving, enlarging, removing, maintaining, operating and utilizing, from time to time, a line of transmission structures or poles (which may include lattice or truss towers or structures on the Property, but only with Owner's consent which shall not be unreasonably withheld, conditioned or delayed), with such wires, guy wires, and/or cables (whether above ground or buried), for the transmission of electrical energy, and all necessary and proper foundations, footings, cross arms and other appliances, facilities and fixtures for use in connection therewith (collectively, the "Transmission Facilities");

NOW THEREFORE THIS AGREEMENT WITNESSETH that in consideration of the mutual covenants and obligations contained herein and other good and valuable consideration the receipt and sufficiency of which is hereby acknowledged, the Parties covenant and agree as follows:

#### 1. Option to Enter Into Easement and Right-Of-Way

. ... . . .

1.1 Subject to the terms and conditions set out herein, Owner hereby grants Developer the exclusive option ("Option") to acquire an easement and right-of-way in respect of any portion of the Property (the "Optioned Property"), for the purposes of constructing, owning and/or operating the Transmission Facilities on the Optioned Property. For greater certainty, the Optioned Property excludes certain portions of the Property identified in Schedule B attached hereto (the "Excluded Property") and Developer acknowledges and agrees that it shall not be permitted to exercise the Option in respect of any portion of the Excluded Property with respect to the Transmission Facilities. The Option shall be exercises the Option, the owner of the Property is the Owner as first named above, then Developer is irrevocably authorized and directed by the Owner to finalize the transmission easement attached hereto as Schedule E (hereinafter referred to as "Easement") by

completing any missing information such as the Commencement Date and the description of the Easement Area (including, without limitation, the reference plan number and the parts identified thereon) and thereafter, Developer shall execute the Easement and provide the completed and fully executed Easement to Owner. If, at the time Developer exercises the Option, the owner of the Property is not the Owner as first named above, then such Owner agrees that it shall duly execute and deliver to Developer on such date as is specified by Developer to Owner, the Easement substantially in the form attached hereto as Schedule E upon the terms and conditions provided therein. In the event such Owner fails to execute and deliver to Developer the Easement by the date specified by Developer to Owner, then such Owner hereby irrevocably constitutes and appoints Developer the true and lawful attorney of such Owner to execute the Easement and all other instruments, approvals and documents as provided for in the Easement. The Option shall be exercised by Developer by providing written notice to Owner (the "Exercise Notice") at any time prior to the expiry of the Option Term (as herewith defined). Accompanying the Exercise Notice shall be a draft or final reference plan identifying the portion of the Optioned Property that will be the subject of the Easement. Owner hereby authorizes Developer to deposit the reference plan on title to the Property.

1.2 The Option shall be exercisable by Developer at any time from the Effective Date up to and including the date which is the third anniversary of the Effective Date ("**Option Term**"). Notwithstanding anything to the contrary herein, however, if Developer shall give written notice to the Owner prior to the expiry of the Option Term that Developer has submitted, or is in the process of submitting, an application to the Ontario Energy Board (or equivalent government or public authority) for approval to transmit or distribute energy pursuant to the Transmission Facilities and such application references this Option Term for an additional period of two (2) years ("**Extended Option Term**") on the same terms, conditions and privileges as set forth hereunder, at the payment then being paid as herein provided, by providing written notice to Owner of such extension, which shall accompany payment pursuant to **Schedule D**, no less than sixty (60) days prior to the expiration of the Option Term and the Extended Option Term may sometimes be collectively referred to herein as the "**Term**".

1.3 Developer shall pay Owner the amounts set forth in **Schedule D** as the consideration for the Option Term ("**Option Payment**") within sixty (60) days after the Effective Date. The Parties acknowledge and agree that the registration copy of this Agreement will not contain the payment provisions set forth in **Schedule D**, and it is understood and agreed that the deletion of such payment provisions does not and will not in any way affect the validity of this Agreement.

1.4 Owner hereby grants to Developer, during the Term, the right to enter upon the Optioned Property, at such times as are agreed to by the Parties, acting reasonably, to allow Developer to undertake studies and tests on, above and below the Optioned Property and to construct and install scientific equipment and any other equipment necessary to perform required studies and tests (collectively "Scientific Equipment"). In the event any Scientific Equipment are located within the cultivated Optioned Property of Owner, and in the event any of the above materially interferes with Owner's farming practices, Developer shall pay Owner a one-time payment for crop damage resulting from the construction or installation of the hereinabove described transmission structures and/or poles, or equipment. Owner shall provide written notice to Developer outlining the

basis for Owner's assertion of damage to the Optioned Property, the exact nature of damage, the source of the assertion that the alleged damage is the result of the exercise by Developer of the rights, privileges and license granted by this Agreement and satisfactory evidence of the damage including documentation showing the extent of the damage and the financial impact of such damage. In the event that the Parties cannot agree at any time on the amount of damage payable to Owner for such crop damage, the compensation paid by Developer to Owner for that use shall be the damages for the crops lost or destroyed in the area damaged as calculated below; in consideration of this payment, no additional damages shall be paid in future years for that episode of damage. Damages will be calculated by the following formula: Unit Price x Unit Yield Per Acre x Acres Damaged = Damages. Prices for damaged or destroyed crops will be based on the average of the previous March 1st and September 1st using the prices for the crop provided by the local grain elevator. Yield will be the average of the previous three (3) years' yields according to Owner's records for the smallest parcel of land that includes the damaged area. If Owner does not have yield records available, the Parties will use commonly used yield information available for the area. The Parties shall try in good faith to agree to the extent of damage and acreage affected. If they cannot agree, they shall have the area measured and extent of damage assessed by an impartial party such as a crop insurance adjuster or extension agent. Any costs for such assessment shall be paid by Developer. Payment shall be made within sixty (60) days after determining the extent of the damage. In the event that Developer requests that Owner move livestock located on the Optioned Property, Owner shall promptly move the livestock to a mutually acceptable location and Developer shall reimburse Owner for the reasonable cost of moving the livestock.

#### 2. Covenants, Representations & Warranties.

2.1 Owner represents and warrants that, as of the Effective Date, Owner is:

(a) at least eighteen (18) years of age and either not a spouse within the meaning of the *Family Law Act*, R.S.O. 1990, c.F.3, as amended; or

(b) at least eighteen (18) years of age and if a spouse within the meaning of the *Family* Law Act, R.S.O. 1990, c.F.3, as amended, then this Agreement has been executed by both spouses together comprising Owner or consented to in writing by Owner's spouse as is evidenced by the signature of the spouse on the Consent attached hereto as **Schedule C**; or

(c) if a corporation, then no building(s) located on the Optioned Property has been ordinarily occupied by any officer, director or shareholder of the corporation or by any of their spouses as a family residence or matrimonial home within the meaning of the *Family Law Act*, R.S.O. 1990, c.F-3, as amended.

2.2 Developer hereby represents and warrants that it is duly organized, validly existing and in good standing under the laws of New Brunswick, is authorized to conduct business in the Province of Ontario and has the right, power and privilege to execute and deliver this Agreement and to perform its obligations hereunder.

2.3 Owner acknowledges that Owner has had the full opportunity to obtain independent legal representation or advice in connection with this Agreement.

2.4 • Owner hereby agrees and covenants:

(a) that subsequent to the execution and delivery of this Agreement and without any additional consideration made or cost to Owner, Owner will execute and deliver or cause to be executed and delivered any further legal instruments, including, without limitation, any required consents or acknowledgements in favour of Developer's lenders, and perform any acts which are or may become necessary to effectuate the purposes of this Agreement and to complete the transactions contemplated hereunder;

(b) that Owner will appoint Developer to act as Owner's agent for the purpose of executing such consents or authorizations as may be necessary for Developer to make any application for re-zoning or site plan approval pursuant to this Agreement, and agrees to cooperate in any such applications; and

that any information which Owner has access to or which comes into Owner's (c) possession relating to Developer's activities, including any wind assessment data or the terms and conditions of this Agreement (including the Easement) (collectively, the "Confidential Information") shall be held in the strictest confidence by Owner, and Owner shall not disclose any Confidential Information to any third party except as may be required by law, or on the same confidential basis as provided herein and then only to Owner's prospective purchasers or legal and financial advisors who have a bona fide and actual need to know same ("Authorized Agents"); (ii) Owner or the Authorized Agents will not use any such Confidential Information, other than as may be required or permitted to perform any of its obligations under this Agreement; and (iii) Owner or its Authorized Agents will not exploit (whether for commercial or other purposes) or otherwise use any such Confidential Information. Owner acknowledges that a breach of any of the provisions contained herein would cause Developer to suffer loss which could not be adequately compensated for by damages and Developer may, in addition to any other remedy or relief, enforce the performance of the provisions of this Section by injunction or specific performance upon application to a court of competent jurisdiction without proof of actual damage. Upon the expiration or earlier termination of this Agreement, all Confidential Information will continue to be kept confidential by Owner.

2.5 Developer hereby covenants that should it elect to exercise the Option, it shall, at its sole cost and expense and prior to accessing the Optioned Property for any purpose related to the assessment or construction of the Transmission Facilities contemplated to be erected by Developer herein, provide and maintain in full force and effect with financially responsible insurance carriers, insurance with commercially reasonable coverages, which shall remain in effect during the term of the Easement or any extension thereof or as otherwise specified herein and which shall, if applicable, include (but not be limited to):

(a) automobile liability insurance covering owned, non-owned, hired, leased and rented automobiles and automotive equipment providing coverage for injury, death, or property damage;

(b) commercial general liability insurance covering bodily injury, death, personal injury and damage to property; and

(c) workers compensation as required by the Ontario *Workplace Safety and Insurance Act* (Ontario) or similar legislation covering all persons employed by Developer or subcontractors for work performed under this Agreement,

#### 2.6 <u>Title Search</u>

(a) If, after the Effective Date, Developer conducts a title search and such search reveals that Owner is not the legal and beneficial owner of the Optioned Property or does not have the legal right and authority to grant to Developer, its employees, servants, agents, consultants, contractors and sub-contractors, the rights under this Agreement or has granted an easement, right-of-way, lease, financial encumbrance or other property right(s) related to the Optioned Property ("**Prior Encumbrance**") to any other person that would interfere with the rights granted to Developer hereunder, Developer may, in its sole discretion, terminate this Agreement effective immediately. If Developer elects not to terminate this Agreement, Owner agrees to cooperate with Developer to obtain from the holder of such Prior Encumbrance any non-disturbance agreement, postponement, mutual co-existence agreement or related agreements, that Developer or its lender(s) may reasonably require. Without limiting the generality of the foregoing, Owner covenants and agrees to use its best efforts to obtain from any prior mortgagee of the Property, either a postponement of such mortgage to this Agreement and any Easement or a non-disturbance agreement in favour of Developer.

(b) If the title search reveals a Prior Encumbrance, Developer, in its sole and absolute discretion, may decide to consult with the holder of such Prior Encumbrance and Owner shall cooperate with Developer to resolve any issues that may arise out of the exercise of the Option vis-à-vis the Prior Encumbrance with the goal of determining whether the Prior Encumbrance and the Easement can co-exist over the Optioned Property.

(c) Notwithstanding Section 2.6(b), Developer may choose to terminate this Agreement at any time pursuant to Section 2.6(a).

2.7 Owner hereby represents and warrants that it is the legal and beneficial owner[s] in fee simple of the Property and has the legal right and authority to grant to Developer, its servants, employees, agents, consultants, contractors and sub-contractors the rights under this Agreements on the terms and conditions set out herein and has not and will not grant an option, easement, lease or any other property rights related to the Optioned Property to any other person that would interfere with the rights granted to Developer hereunder, save and except for any easements, rights-of-way, petroleum or natural gas leases or any other property rights granted by the Owner prior to the Effective Date.

2.8 Owner covenants and agrees to execute all applications, consents, permissions, agreements, postponements, partial discharges and any other documents which Developer may require in connection with obtaining any and all approvals including, but not limited to, rezoning, governmental approvals, consents, permits or variances (collectively, "Approvals") and in connection with entering into by Developer of any agreements with such governmental and public authorities as may be necessary to give due force and effect to and in furtherance of Developer's

applications, and the Owner shall produce all other documents and information which may be accessed to required in connection with such applications. All applications for Approvals shall be made by Developer, at its sole cost and expense and any costs associated with such Approvals shall be borne by Developer. Developer agrees that the obligation of the Owner pursuant to this paragraph shall be restricted to execution of documents and production of documents and information and shall not impose upon the Owner any financial obligation whatsoever.

#### 2.9 <u>Mutual Indemnities</u>

(a) Developer shall indemnify and hold harmless the Owner against all actions, suits, claims, demands and expenses made or suffered by any person or persons, in respect of loss, injury, damage or obligation to compensate, arising out of or in connection with or as a result of:

- (i) the negligence or wilful misconduct of Developer; or
- (ii) any breach by Developer of the terms and conditions of this Agreement; or

provided that Developer shall not be liable under this Section to the extent to which such loss, damage or injury is caused or contributed to by the negligence or default of Owner, its servants or agents. For greater certainty, Developer shall not be liable to Owner for the actions of Owner, its agents, employees, invitees or representatives who enter upon the Optioned Property.

(b) Owner shall indemnify and hold harmless Developer against all actions, suits, claims, demands and expenses made or suffered by any person or persons, in respect of loss, injury, damage or obligation to compensate, arising out of or in connection with, or as a result of the negligence or wilful misconduct of Owner, as well as, in respect of any loss, injury or damage arising out of or in connection with, any breach by Owner of the terms and conditions of this Agreement; provided that Owner shall not be liable under this Section to the extent to which such loss, damage or injury is caused or contributed to, by the negligence or default of Developer, its servants or agents. For greater certainty, Owner shall not be liable to Developer for the actions of: (i) Developer, its agents, employees, or representatives who enter upon the Optioned Property, or (ii) any trespasser or unauthorized person who enters upon the Optioned Property.

(c) Notwithstanding the foregoing, the Parties hereto shall only be liable for reasonably anticipated and foreseeable damages.

#### 3. Termination

3.1 Except as otherwise stipulated herein, this Agreement shall terminate at the earlier of:

(a) failure by Developer to pay the requisite payments provided for hereunder, after written demand by the Owner, unless otherwise agreed to by the Parties;

(b) receipt by the Owner of notice from Developer of Developer's desire to terminate the Agreement at any time during the Term;

(c) termination by Developer pursuant to Section 2.6; or

(d) the expiry of the Term of the Option as set out in Section 1.2.

3.2 The representations, warranties, covenants and agreements contained in Section 2 hereof shall survive the termination of this Agreement and remain in full force and effect.

3.3 In the event that this Agreement is terminated on the date stipulated in Section 3.1(b) (the "Early Termination Date"), Developer shall be released from having to pay any further Option Payment under this Agreement.

4. Notices

4.1 Any notice or other writing required or permitted to be given under this Agreement or for the purposes of this Agreement (referred to in this Section as a "**Notice**") to the other Party shall be sufficiently given if delivered personally, or if sent by prepaid registered mail or if transmitted by fax or other form of recorded communication tested prior to transmission to such other Party:

In the case of Notice to Developer, to:

Goshen Wind, Inc. 390 Bay Street, Suite 1720 Toronto, ON, M5H 2Y2 Canada Attention: Business Management Telephone: (416) 364-9714

With a copy to:

Goshen Wind, Inc. 700 Universe Blvd. Juno Beach, FL 33408 Attention: Business Management Telephone: (561) 691-7171 Facsimile: (561) 691-7307

In the case of the Owner, to:

Telephone:

or at such other address as the Party to whom such writing is to be given shall have last notified to the Party giving the same in the manner provided in this Section. Any notice personally delivered to the Party to whom it is addressed as provided in this Section shall be deemed to have been given and received on the day it is so delivered at such address; provided that if such day is not a Business Day then the notice shall be deemed to have been given and received on the Business Day next following such day. Any notice mailed to the address and in the manner provided for in this Section shall be deemed to have been given and received on the fifth Business Day next following the date of its mailing in Ontario. Any notice transmitted by fax shall be deemed to have been given and received ... on the first Business Day after its transmission.

4.2 For the purposes of this Section, the term "Business Day" means every day except Saturdays, Sundays and statutory holidays in the Province of Ontario.

#### 5. General Provisions

5.1 This Agreement shall be governed by the laws of the Province of Ontario and the federal laws of Canada applicable therein.

5.2 All matters in dispute between the Parties pursuant to this Agreement shall be resolved by good-faith negotiation. If the Parties are unable to resolve amicably any dispute arising out of or in connection with this Agreement, each shall have all remedies available at law or in equity. Each Party waives all right to trial by jury and specifically agrees that trial of suits or causes of action arising out of this Agreement shall be to the Court. Time is of the essence with regard to the terms and conditions of this Agreement.

#### 5.3 Assignment

(a) Subject to Subsection 5.3(c) below, this Agreement may be assignable by Owner to a successor in title.

(b) Subject to Subsection 5.3(c) below, Developer shall be able to assign this Agreement or any portion of its interest in the Optioned Property derived under the Agreement and the Easement to be granted thereunder to one or more persons or entities without the prior consent of Owner to any persons, including to its lender(s) as security for Developer's obligations to such lender(s). Owner shall execute and deliver any consent and acknowledgement reasonably requested by such lender.

(c) No assignment by Owner shall be effective unless and until the assignee executes an assumption agreement ("Assumption Agreement") with respect to this Agreement agreeing to be bound by the terms hereof to the same extent as if it had been an original party hereto. For greater certainty, Owner covenants and agrees that in the event Owner transfers or conveys the Property or any portion that comprises the Optioned Property, Owner will obtain from any such transferee or purchaser an Assumption Agreement in favour of Developer.

5.4 This Agreement shall be binding upon and inure to the benefit of the Parties hereto, their respective heirs, executors, administrators and other legal representatives and, to the extent permitted hereunder, their respective successors and permitted assigns.

5.5 If any provision of this Agreement is determined to be invalid or unenforceable in -whole or in-part, such invalidity or unenforceability-shall attach only to such provision (or part thereof) and everything else in this Agreement shall continue in full force and effect.

5.6 No change or modification of this Agreement shall be valid unless it is in writing and signed by each Party hereto.

respect to the subject matter of this Agreement or understanding between them. Whether express or implied, which has induced any of the Parties hereto to enter into this Agreement except as expressly stated herein.

5.8 No failure on the part of any Party to exercise, and no delay by any Party in exercising, any right under this Agreement shall operate as a waiver of such right, unless the Party gives written notice to the other Party of its intention to waive such right.

5.9 This Agreement shall commence on the Effective Date.

5.10 Time shall be of the essence of this Agreement.

5.11 The section headings herein have been inserted for ease of reference only and shall not affect the construction or the interpretation of this Agreement.

5.12 This Agreement may be executed in several counterparts, each of which so executed shall be deemed to be an original, and such counterparts together shall constitute but one and the same instrument.

5.13 Delivery of this Agreement by facsimile transmission shall constitute valid and effective delivery.

5.14 Any monies to be paid pursuant to this Agreement shall be in Canadian funds.

5.15 This Agreement shall be effective to create an interest in the Optioned Property for the Term.

5.16 Developer shall be entitled, at its cost and expense, to register this Agreement or a notice in respect thereof and any required reference plans in the Land Registry Office for the area in which the Property is situated and Owner agrees to execute, at no cost to Developer, all necessary instruments, plans and documentation for that purpose.

5.17 This Agreement shall be effective to create an interest in the Optioned Property only if the subdivision control provisions of the *Planning Act* (Ontario) are complied with.

[Remainder of page intentionally left blank, signature page follows]

date first above written.

Witness:	
Name:Address:	
Date:	
Witness:	
Name:	· · · · · · · · · · · · · · · · · · ·
Address:	
Date:	
	Developer:
	Goshen Wind, Inc.
	a New Brunswick company
	Per:
	"I have the authority to bind the corporation"
	аналан алтан калан к

**Owner**:

## SCHEDULE A

and a second second

## TO TRANSMISSION EASEMENT OPTION AGREEMENT

## **DESCRIPTION OF PROPERTY**

## BEING THE WHOLE OF PIN NO. (LT)

Stipulated Acreage: \_\_\_\_ Acres

## SCHEDULE B

## TO TRANSMISSION EASEMENT OPTION AGREEMENT DEPICTION OF PROPERTY AND EXCLUDED PROPERTY

#### -<u>SCHEDULE C</u>

## TO TRANSMISSION EASEMENT OPTION AGREEMENT

#### CONSENT OF SPOUSE

I,\_\_\_\_\_, being the spouse of \_\_\_\_\_, do hereby give my consent to the grant of the option made in the Transmission Easement Option Agreement dated \_\_\_\_\_\_, 20\_\_\_\_ in respect of the following property:

DATED this \_\_\_\_\_\_ day of \_\_\_\_\_\_, 20\_\_\_.

WITNESS:

SPOUSE OF OWNER

Name: Address: Name: Address:

and the second second

#### SCHEDULE "D"

#### TO TRANSMISSION OPTION

#### Compensation

Payment terms available upon request by a person who has an interest in the subject lands.

In consideration for granting a Transmission Option to Goshen Wind, Inc., a company incorporated pursuant to the laws of the Province of New Brunswick and authorized to conduct business in the Province of Ontario ("Developer"), \_\_\_\_\_, as joint tenants, ("Owner") shall receive the following compensation:

1. The greater of (a) a lump sum payment of the number of acres depicted as the Optioned Property, less the Excluded Property, on Schedule "B", for the Option Term.

2. The greater of (a) a lump sum payment of the number of acres depicted as the Optioned Property, less the Excluded Property, on Schedule "B", for the Extended Option Term, if applicable.

2

3. All payments shall include harmonized sales tax ("HST"), if applicable.

Payment shall be distributed as follows:

100% to

Address

Signature required for each payee:

Date

Date

## SCHEDULE-"E"

## TO TRANSMISSION EASEMENT OPTION AGREEMENT

## FORM OF TRANSMISSION EASEMENT

(See Attached)

#### TRANSMISSION EASEMENT (in Gross)

#### PREMISES

A. Grantor is the registered owner of an estate in fee simple composed of certain parcels or tracts of land and premises more particularly described on **Exhibit A** attached hereto and made a part hereof ("**Property**"); and

B. Grantor desires to grant, convey and transfer to Grantee an exclusive easement and right-of-way in perpetuity for the erection, installation and maintenance of certain facilities for the transmission of electric power over and across a certain portion of the Property.

IN CONSIDERATION of the foregoing and other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, the parties hereto agree as follows:

Grant. Grantor does hereby grant, convey and transfer to Grantee, an exclusive easement 1. and right-of-way in perpetuity (the "Transmission Easement") in, on, over, across, along and under that portion of the Property more particularly described on Exhibit B ("Easement Area"), with such persons, vehicles and equipment necessary for the purposes of erecting, constructing, replacing, relocating, improving, enlarging, removing, maintaining, operating and utilizing, from time to time, a line of transmission structures or poles (which may include lattice or truss towers or structures in the Easement Area, but only with Owner's consent which shall not be unreasonably withheld, conditioned or delayed), with such wires, guy wires, and/or cables (whether above ground or buried), for the transmission of electrical energy, and all necessary and proper foundations, footings, cross arms and other appliances, facilities and fixtures for use in connection therewith (collectively, the "Transmission Facilities") in, on, over, across, along and under the Easement Area; together with (i) the right of ingress to and egress from the Transmission Facilities over and along the Property; and (ii) a temporary non-exclusive easement and right-of-way in, over, across, along and under the Property during the initial construction and installation of the Transmission Facilities (the "Construction Easement"). Once the final reference plan describing the extent of the Easement Area has been prepared and deposited by Grantee on title to the Property, Grantor confirms that Grantee is irrevocably authorized and directed to insert the Part No(s). and Reference Plan No. into the attached Exhibit B without the requirement of any further approval or action by Grantor.

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2. <u>No Interference</u>. Grantor covenants and agrees that it shall not construct, install, or permit to be constructed or installed, any improvements, fences, structures, buildings, foliage or vegetation, utility lines or other improvements of any type whatsoever upon or near the Easement Area which would inhibit or impair any of Grantee's rights or benefits as set forth in this Grant. Grantee shall have the right, without compensation to Grantor, to cut, prune and remove or otherwise dispose of any foliage or vegetation on or near the Easement Area that Grantee deems a threat or potential threat to Grantee's Transmission Facilities or its rights hereunder. Grantor shall not grant or permitany person or person(s) claiming through Grantor, other than Grantee, any right-of-way, encumbrance, easement or other right or interest in, to or affecting the Easement Area, without the prior written consent of Grantee in each instance, which consent Grantee may grant, withhold or deny in its sole, absolute and subjective discretion.

3. <u>Term</u>. The term of this Grant shall commence on the Effective Date and continue in perpetuity (the "**Term**").

4. <u>Authority</u>. Grantor hereby represents and warrants to Grantee that it is the sole registered owner of the Property in fee simple, subject to no liens or encumbrances registered in priority to this Transmission Easement, except as may be disclosed by registered title to the Property on or before the Effective Date, and is fully authorized and empowered to grant the rights, privileges and benefits granted to Grantee in this Grant.

5. <u>Compensation</u>. Grantee shall pay Grantor the amounts set forth in **Exhibit C** as the consideration for the Grant. The parties acknowledge and agree that the registration copy of this Grant will not contain the payment provisions set forth in **Exhibit C**, and it is understood and agreed that the deletion of such payment provisions does not and will not in any way affect the validity of this Grant.

6. <u>Crop Compensation</u>. Crop damage that can be reasonably demonstrated to have been caused by Grantee as a result of performing the activities authorized in this Grant, shall be paid for by Grantee according to the established yield per acre as documented in crop insurance documentation for the Property and using the price provided by the local grain elevator. Each time Grantee exercises its rights under the Transmission Easement, Grantee shall compensate Grantor for all crops lost or damaged by reason of the use.

7. <u>Indemnification and Insurance</u>. Grantee shall maintain general liability insurance insuring Grantee and Grantor against loss caused by Grantee's use of the Property. The amount of insurance shall be not less than \$3,000,000.00 of combined single limit liability coverage. Grantee shall indemnify and at its expense defend Grantor against liability for injuries and claims for direct damage to the extent that they are caused by Grantee's exercise of rights granted in this Grant. This indemnity does not cover losses of rent, business opportunities, crop production, and profits that may result from Grantor's loss of use of the Property and for greater certainty, Grantee shall only be liable for reasonably anticipated and foreseeable damages.

8. <u>Grantee's Property</u>. Notwithstanding that in constructing, maintaining and operating the Transmission Facilities, Grantee may install equipment and appurtenances in, on, over, along, under or across the Easement Area in such a manner that it or they become affixed to the Easement Area, the title to such equipment and appurtenances shall at all times remain the personal property of Grantee.

9. <u>Assignment by Grantor</u>. It will be a condition to any transfer or conveyance of the whole or any part of the Property by Grantor that Grantor shall cause the purchaser of any portion of the Property to execute an agreement in favour of Grantee agreeing to be bound by the terms hereof to

- 3 -

the same extent as if such purchaser had been an original party hereto. The purchaser shall also agree to extract a similar covenant from any future purchaser of any portion of the Property.

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#### 10. Assignment by Grantee; Mortgage Rights.

Right to Mortgage & Assign. Grantee, upon notice to Grantor, but without Grantor's (a) consent or approval shall have the right to mortgage, charge, collaterally assign, or otherwise encumber and grant security interests in all or any part of its interest in this Transmission Easement or the Easement Area, or the Transmission Facilities (collectively, its "Facilities Assets"). These various security interests in all or a part of the Facilities Assets are collectively referred to as "Mortgages" and the holders of the Mortgages, their designees, successors and assigns are referred to as "Mortgagees". Grantee's notice to Grantor shall include the name and address of each Mortgagee and/or Assignee. Grantee shall also have the right without Grantor's consent to sell, convey, lease, sublease, grant or assign all or any portion of its Facilities Assets on either an exclusive or a non-exclusive basis, or to grant sub-easements co-easements, separate easements, leases, licenses or similar rights, however denominated (collectively, "Assignment"), to one or more persons or entities (collectively, "Assignees"). Assignees and Mortgagees shall use the Facilities Assets only for the uses permitted under this Grant. Assignees and Mortgagees shall have all rights and remedies allowed them under then existing laws except as limited by their individual agreements with Grantee, provided that under no circumstances shall any Mortgagee or Assignee have any greater rights of ownership or use of the Property than the rights granted to Grantee in this Grant.

Grantor Obligations: Grantor agrees to consent in writing to and to execute financing (b) documents, including customary three party lender agreements, as may reasonably be required by Mortgagees. As a precondition to exercising any rights or remedies related to any alleged default by Grantee under this Grant, Grantor shall give written notice of the default to each Mortgagee and Assignee at the same time it delivers notice of default to Grantee, specifying in detail the alleged event of default and the required remedy. Each Mortgagee and Assignee shall have the same amount of time to cure the default as to Grantee's entire interest or its partial interest in the Facilities Assets as is given to Grantee and the same right to cure any default as Grantee or to remove any property of Grantee, Mortgagees or Assignees located on the Easement Area. The cure period for each Mortgagee and Assignee shall begin to run at the end of the cure period given to Grantee in this Grant, but in no case shall the cure period for any Mortgagee or Assignee be less than ninety (90) days after receipt of the default notice. Failure by Grantor to give a Mortgagee or Assignee notice of default shall not diminish Grantor's rights against Grantee, but shall preserve all rights of the Mortgagee or Assignee to cure any default and to remove any property of Grantee, the Mortgagee or Assignee located on the Easement Area.

(c) <u>Mortgagee/Assignee Obligations</u>. Any Mortgagee or Assignee that does not directly hold an interest in the Facilities Assets, or whose interest is held solely for security purposes, shall have no obligation or liability under this Grant prior to the time the Mortgagee or Assignee directly holds an interest in this Grant, or succeeds to absolute title to Grantee's interest. A Mortgagee or Assignee shall be liable to perform obligations under this Grant only for and during the period it directly holds such interest or absolute title. Any Assignment permitted under this Grant shall release Grantee or other assignor from obligations accruing after the date that liability is assumed by the Assignee. - 4 -

#### (d) Right to Cure Defaults/Notice of Defaults/Right to New Transmission Easement.

(1) To prevent Grantor's exercise of any remedies available to it in respect of a default by Grantee under this Grant, the Transmission Easement, or any partial interest in this Grant and the Transmission Easement, Grantee, any Mortgagee or Assignee shall have the right, but not the obligation, at any time to perform any act necessary to cure any default and to prevent the exercise of Grantor's remedies in respect of a default by Grantee under this Grant or any interest in the Facilities Assets.

(2) In the event of an uncured default by the holder of Grantee's entire interest in this Grant, or in the event of a termination of this Grant by agreement, by operation of law or otherwise, each Mortgagee or Assignee of a partial interest in the Facilities Assets shall have the right to have Grantor either recognize the Mortgagee's or Assignee's interest or, in the event of a termination, grant new easements substantially identical to this Grant and the Transmission Easement. Under the new easements, the Mortgagee or Assignee shall be entitled to, and Grantor shall not disturb, Mortgagee's or Assignee's continued use and enjoyment for the remainder of the Term.

(e) <u>Extended Cure Period</u>. If any default by Grantee under this Grant cannot be cured without obtaining possession of all or part of the Facilities Assets, then any such default shall be deemed remedied if a Mortgagee or Assignee: (a) within ninety (90) days after receiving notice from Grantor as set forth in Section 10(b), acquires possession of all or part of the Facilities Assets, or begins appropriate judicial or nonjudicial proceedings to obtain the same; (b) diligently prosecutes any such proceedings to completion; and (c) after gaining possession of all or part of the Facilities Assets cures defects that are reasonably capable of being cured and not otherwise personal to Grantor and performs all other obligations as and when the same are due in accordance with the terms of this Grant. If a Mortgagee or Assignee is prohibited by any court or by operation of any bankruptcy or insolvency laws from commencing or prosecuting the proceedings described above, the ninety (90) day period specified above for commencing proceedings shall be extended for the period of such prohibition.

(f) <u>Certificates</u>. Grantor shall execute estoppel certificates (certifying as to truthful matters, including without limitation that no default then exists under this Grant, if such be the case), consents to assignment, direct lender agreements and non-disturbance agreements as Grantee or any Mortgagee or Assignee may reasonably request from time to time. Grantor and Grantee shall cooperate in amending this Grant from time to time to include any provision that may be reasonably requested by Grantee or any Mortgagee or Assignee to implement the provisions contained in this Grant or to preserve a Mortgagee's security interest in the Facilities Assets.

11. <u>Mortgagee Protection</u>. Any Mortgagee, upon delivery to Grantor of notice of its name and address, for so long as its Mortgage is in existence shall be entitled to the following protections which shall be in addition to those granted elsewhere in this Grant:

÷....

(a) <u>Mortgagee's Right to Possession, Right to Acquire and Right to Assign</u>. A Mortgagee shall have the absolute right without Grantor's consent: (a) to assign its Mortgage; (b) to enforce its lien, including, to acquire title to all or any portion of the Facilities Assets by any lawful means; (c) to take possession of and operate all or any portion of the Facilities Assets and to perform all

obligations to be performed by Grantee under this Grant, or to cause a receiver or a receiver and manager to be appointed to do so; and (d) to acquire all or any portion of the Facilities Assets by foreclosure, by an assignment in lieu of foreclosure or by quit claim and thereafter without Grantor's consent to assign or transfer all or any portion of the Facilities Assets to a third party. A Mortgagee which assigns or transfers the Facilities Assets to a third party shall notify Grantor of the name and address of the Assignee or transferee.

#### (b) <u>Opportunity to Cure</u>.

During any period of possession of the Easement Area by a Mortgagee (or a (1)receiver or receiver and manager requested by a Mortgagee) and/or while any foreclosure, power of sale or other enforcement proceedings instituted by a Mortgagee are pending, the Mortgagee shall pay or cause to be paid the fees and all other monetary charges, if any, payable by Grantee under this Grant which have accrued and are unpaid at the commencement of the period and those which accrue thereafter during the period. Following acquisition of all or a portion of the Facilities Assets by the Mortgagee as a result of either foreclosure, acceptance of an assignment in lieu of foreclosure, quit claim or by a purchaser under a power of sale or judicial sale, this Grant shall continue in full force and effect and the Mortgagee or party acquiring title to the Facilities Assets shall, as promptly as reasonably possible, commence the cure of all defaults under this Grant and thereafter diligently process such cure to completion, whereupon Grantor's rights relating to such default shall be deemed waived: provided, however, that the Mortgagee or party acquiring title to the Facilities Assets shall not be required to cure those defaults which are not reasonably susceptible of being cured or performed by such party ("non-curable defaults"). Non-curable defaults shall be deemed waived by Grantor upon completion of foreclosure proceedings or acquisition of Grantee's interest in this Grant under a power of sale or judicial sale.

(2) Any Mortgagee or other party who acquires Grantee's interest in the Facilities Assets pursuant to foreclosure, assignment in lieu of foreclosure, quit claim, under a power of sale or judicial sale or otherwise shall not be liable to perform the obligations imposed on Grantee by this Grant incurred or accruing after the party no longer has ownership or possession of the Facilities Assets.

#### (c) <u>New Easement</u>.

(1) If this Grant is terminated for any reason, if the Facilities Assets are foreclosed, or if this Grant is rejected, repudiated, resiliated or disaffirmed pursuant to bankruptcy law or other law affecting creditor's rights and, within ninety (90) days after such event, Grantee or any Mortgagee or Assignee shall have arranged to the reasonable satisfaction of Grantor for the payment of all fees or other charges due and payable by Grantee as of the date of such event, then Grantor shall execute and deliver to Grantee or such Mortgagee or Assignee or to a designee of one of these parties, as the case may be, a new easement to the Easement Area which (i) shall be for a term equal to the remainder of the Term before giving effect to such rejection, repudiation, resiliation or termination; (ii) shall contain the same covenants, agreements, terms, provisions and limitations as this Grant (except for any requirements that have been fulfilled by Grantee or any Mortgagee or Assignee prior to rejection, repudiation, resiliation or termination of this Grant); and, (iii) shall include that portion of the Easement Area in which Grantee or such other Mortgagee or Assignee had an interest on the date of rejection, repudiation, resiliation or termination.

this Grant and during the period thereafter during which any Mortgagee shall be entitled to enter into new easements for the Easement Area, Grantor will not terminate the rights of any Assignee unless in default under its Assignment.

(3) If more than one Mortgagee makes a written request for a new easement pursuant to this provision, the new easements shall be delivered to the Mortgagee requesting such new easement whose Mortgage is prior in lien, and the written request of any other Mortgagee whose lien is subordinate shall be void and of no further force or effect.

(4) The provisions of this Section shall survive the termination, rejection, repudiation, resiliation or disaffirmation of this Grant and shall continue in full force and effect thereafter to the same extent as if this Section were a separate and independent contract made by Grantor, Grantee and each Mortgagee, and, from the effective date of such termination, rejection, repudiation, resiliation or disaffirmation of this Grant to the date of execution and delivery of such new easements, such Mortgagee may use and enjoy the Easement Area without hindrance by Grantor or any person claiming by, through or under Grantor; provided that all of the conditions for the new easements as set forth above are complied with.

(d) <u>Mortgagee's Consent to Amendment, Termination or Surrender</u>. Notwithstanding any provision of this Grant to the contrary, the parties agree that so long as there exists an unpaid Mortgagee, this Grant shall not be modified or amended, and Grantor shall not accept a surrender, abandonment, cancellation or release of all or any part of the Easement Area from Grantee, prior to expiration of the Term without the prior written consent of the Mortgagee. This provision is for the express benefit of and shall be enforceable by each Mortgagee as if it were a party named in this Grant.

(e) <u>No Merger</u>. There shall be no merger of this Grant or of the Transmission Easement with the fee estate in the Easement Area by reason of the fact that this Grant or any interest in the Transmission Easement may be held, directly or indirectly, by or for the account of any person or persons who shall own any interest in the fee estate. No merger shall occur unless and until all persons at the time having an interest in the fee estate in the Easement Area and all persons (including each Mortgagee) having an interest in this Grant or in the estate of Grantor and Grantee shall sign and record a written instrument effecting such merger.

(f) Liens. On the commencement of the Term, title to the Easement Area shall be free and clear of all monetary liens other than those expressly approved by Grantee. With respect to any such liens approved by Grantee, Grantor shall nevertheless obtain either non-disturbance agreements or postponements from the holders of such liens in favour of Grantee and this Transmission Easement, such agreements or postponements, as the case may be, to be reasonably satisfactory to Grantee. Thereafter, any assignment of this Grant, mortgage, deed of trust or other monetary lien placed on the Easement Area by Grantor, or permitted by Grantor to be placed or to remain on the Easement Area, shall be subject to and subordinate to this Grant, to any Assignment or Mortgage then in existence on the Facilities Assets as permitted by this Grant, to Grantee's right to encumber the Facilities Assets, and to any and all documents executed or to be executed by Grantor in connection with Grantee's development of all or any part of the Easement Area. Grantor agrees to

cause any monetary liens placed on the Easement Area by Grantor in the future to incorporate the conditions of this Section.

(g) <u>Further Amendments</u>. At Grantee's request, Grantor shall amend this Grant to include any provision which may reasonably be requested by a proposed Mortgagee; provided, however, that such amendment shall not impair any of Grantor's rights under this Grant or increase the burdens or obligations of Grantor under this Grant. Upon the request of any Mortgagee, Grantor shall execute any additional instruments reasonably required to evidence such Mortgagee's rights under this Grant.

12. <u>Legal Fees</u>. In the event of any controversy, claim or dispute arising out of or relating to the Transmission Easement or the enforcement or breach hereof, the prevailing party shall be entitled to recover from the losing party the prevailing party's reasonable costs, expenses and legal fees.

13. <u>Binding Effect: Governing Law</u>. This Grant shall be binding upon and shall inure to the benefit of both Grantor and Grantee, and their respective heirs, successors and assigns, and shall be deemed a covenant running with the land for all purposes. The provisions hereof shall be governed by and construed in accordance with the laws of the Province of Ontario. Grantee agrees that this Transmission Easement and the rights, privileges and easements granted pursuant thereto shall be declared to be: (i) for the purposes of electricity transmission lines or electricity distribution lines within the meaning of Part VI of the *Ontario Energy Board Act*, 1998, and (ii) an easement in favour of a generator, transmitter or distributor for the purpose of generation, transmission or distribution within the meaning of Section 42.1 of the *Electricity Act*, 1998.

14. <u>Termination</u>. Grantee shall have the right to terminate this agreement at any time upon 30 days written notice to Grantor. Upon full or partial termination of the Transmission Easement, Grantee shall remove all physical material pertaining to the Transmission Facilities and restore the area formerly occupied by the Transmission Easement to substantially the same physical condition that existed immediately before the installation of the Transmission Facilities. In the event of termination, Grantee has no right to recover any amounts previously paid to Grantor as consideration for this Grant.

15. Notices.

All notices to be given hereunder shall be in writing and all such notices and any payments to be made hereunder may be made or served personally or by registered letter addressed to Grantor at:

7

To Grantor:

Telephone:

To Grantee:

Goshen Wind, Inc. 390 Bay Street, Suite 1720 Toronto, ON, M5H 2Y2, Canada Attention: Business Management

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··· Telephone: (416) 364-9714

With a copy to:

Goshen Wind, Inc. 700 Universe Blvd. Juno Beach, FL 33408 Attention: Business Management Telephone: (561) 691-7171 Facsimile: (561) 691-7307

or such other address, as Grantor or Grantee respectively may from time to time advise and any such notices or payments shall be deemed to be given and received by the addressee upon personal service or, if served by registered letter, fourteen (14) days after mailing thereof, postage prepaid. In the event of a postal interruption, all notices to be given and all payments to be made hereunder may be made or served personally or delivered to the intended recipient at the address of the recipient set out above. Grantee shall also be permitted to make any payment to Grantor electronically at Grantee's discretion and subject to Grantor's consent.

16. <u>Severability</u>. If any term or provision of this Transmission Easement, or the application thereof to any person or circumstances shall, to any extent, be determined by judicial order or decision to be invalid or unenforceable, the remainder of this Transmission Easement or the application of such term or provision to persons or circumstances other than those as to which it is held to be invalid, shall be enforced to the fullest extent permitted by law.

17. <u>Counterparts</u>. This Transmission Easement may be executed in two or more counterparts, each of which will be deemed an original, but all of which together shall constitute one and the same instrument.

18. <u>Family Law Act</u>. Grantor represents and warrants to Grantee that if Grantor is an individual, Grantor is either not married, or if married, his or her spouse either comprises a Grantor hereunder or such spouse has consented to the grant of the Transmission Easement to Grantee pursuant to the terms herein by executing a copy of this Transmission Easement, and if Grantor is a corporation, the Easement Area has never been occupied by any of the directors, officers or shareholders of Grantor or the spouses of such directors, officers or shareholders and there are no shares in existence entitling the holders of such shares to occupation of the buildings. Accordingly, the Easement Area does not comprise a family residence within the meaning of the *Family Law Act*.

19. <u>Grantee's Statutory Rights</u>. This Transmission Easement shall not affect or prejudice Grantee's statutory rights to acquire the Easement Area under any laws, including, without limitation, Grantee's statutory rights under the *Ontario Energy Board Act*, 1998, which rights may be exercised at Grantee's discretion, in the event, Grantor being unable or unwilling for any reason to perform this Transmission Easement, or, give to Grantee a clear and unencumbered title to the easement and right-of-way herein granted.

20. <u>**Planning Act.**</u> This Transmission Easement and the provisions hereof which create, or, are intended to create an interest in the Easement Area shall be effective to create such an interest only if

- the subdivision control provisions of the *Planning Act*, R.S.O. 1990 c. P. 13, as amended are complied with.

21. <u>Registration</u>. Grantee shall be entitled, at its cost and expense, to register this Transmission Easement or a notice in respect thereof, and any required reference plans in the applicable Land Registry Office, and, Grantor agrees to execute, at no cost to Grantee, all necessary instruments, plans and documentation for that purpose.

22. <u>Setback Waiver</u>. To the extent that (a) Grantor now or in the future owns or leases any land adjacent to the Easement Area, or (b) Grantee leases or holds an easement/license or a lease over land adjacent to Easement Area, and has installed or constructed or desires to install or construct any Transmission Facilities on said land at and/or near the common boundary between the Easement . Area and said land, Grantor hereby waives any and all setbacks and setback requirements, whether imposed by law or by any person or entity, including, without limitation, any setback requirements described in the zoning by-laws of the County and/or Province or in any governmental entitlement or permit heretofore or hereafter issued to Lessee. If so requested by Grantee, Grantor shall promptly, without demanding additional consideration therefore, execute, and if appropriate cause to be acknowledged, any setback waiver, setback elimination or other document or instrument required by any governmental authority or that Grantee deems necessary or convenient to the obtaining of any entitlement or permit.

23. <u>**Removal of Debris.**</u> Within 120 days of the Commercial Operations Date, Grantee shall remove all debris from Property. For purposes of this Agreement "Commercial Operations Date" shall mean the date that the Transmission Facilities at the Project are commercially operational and delivering energy, as determined by the Grantee.

24. **Drainage Tile**. If any drainage tiles on or under the Easement area have been damaged as a direct result of Grantee's activities in connection with the construction of the Transmission Facilities, Grantee shall pay to Grantor the cost to repair or replace the drainage tiles.

25. <u>Fencing</u>. Grantee shall not fence the Easement Area or any part thereof, with the exception of transformer stations, without the written consent of the Grantor.

[Remainder of page intentionally left blank, signature page follows]

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IN WITNESS WHEREOF the Parties hereto have executed this Agreement on the date first above written.

	Owner:	
Witness:		
Name: Address:		
Date:		
Witness:		
Name: Address:		 
Date:		

Developer:

Goshen Wind, Inc. a New Brunswick company

Per:

Michael O'Sullivan, Vice President "I-have the authority to bind the corporation"

## EXHIBIT A

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## TO TRANSMISSION EASEMENT

Legal Description of Property

## BEING THE WHOLE OF PIN NO. \_\_\_\_\_ (LT)

Stipulated Acreage: \_\_\_\_\_ Acres

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EXHIBIT B

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## TO TRANSMISSION EASEMENT

## Legal Description of Easement Area

(Insert description from reference plan)

PT \_\_\_\_ LT \_\_\_, CON \_\_\_\_\_, DESIGNATED AS PART(S) \_\_\_\_ ON PLAN •-\_\_\_\_, BEING PART OF PIN NO. \_\_\_\_\_

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#### <u>EXHIBIT C</u>

#### TO TRANSMISSION EASEMENT

#### Compensation

Payment terms available upon request by a person who has an interest in the subject lands.

In consideration for granting a Transmission Easement to Goshen Wind, Inc., a company incorporated pursuant to the laws of the Province of New Brunswick and authorized to conduct business in the Province of Ontario ("Grantee"), \_\_\_\_\_\_, as joint tenants, ("Grantor") shall receive the following compensation:

1. A one-time payment, the greater of (a) a lump sum payment of **a second secon** 

2. A one-time payment of **Property** per pole constructed on the Property.

3. A one-time payment of **Constructed** and **Constructed** per guy wire anchor constructed upon the Property.

4. All payments shall include harmonized sales tax ("HST"), if applicable.

Payment shall be made to Grantor as follows: Fifty percent (50%) of the total amount due shall be paid within sixty (60) days of the Effective Date. Fifty percent (50%) shall be paid within thirty (30) days after completion of a final survey of the entire transmission line. Said survey shall determine the exact lineal footage/acreage upon which payment shall be made from Grantee to Grantor.

Payment shall be distributed as follows:

100% to

Address

Signature required for each payee:

Name .....

Name

Date:

Date:

#### ····· EXHIBIT D

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#### TO TRANSMISSION EASEMENT

## CONSENT OF SPOUSE

I, \_\_\_\_\_, being the spouse of \_\_\_\_\_ do hereby give my consent to the grant of the lands made in the Transmission Easement the \_\_\_\_\_ day of \_\_\_\_\_\_, 20\_\_\_\_ in respect of the following property:

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DATED this \_\_\_\_\_\_ day of \_\_\_\_\_\_, 20\_\_\_.

WITNESS:

SPOUSE OF GRANTOR

.....

Name: Address: Name: Address:
#### STATUTORY DECLARATION

#### **RE: PLANNING ACT**

#### FLORIDA

COUNTY OF PALM BEACH

IN THE MATTER OF the easement (the "Easement") in

) favour of Goshen Wind, Inc. (the "Grantee"), with respect

) to the lands more particularly described in Exhibit "A"

) hereto (the "Easement Lands")

I, Michael O'Sullivan, of the Town of Juno Beach, in the State of Florida, DO SOLEMNLY DECLARE, in my capacity as Vice President of Goshen Wind, Inc. a company incorporated pursuant to the laws of the Province of New Brunswick and authorized to conduct business in the Province of Ontario, and without personal liability that:

1. I am the Vice President of Goshen Wind, Inc., a company incorporated pursuant to the laws of the Province of New Brunswick and authorized to conduct business in the Province of Ontario, (the "Grantee") and, as such, am aware of the matters herein deposed to save where same are stated to be upon information and belief, and where so stated, I verily believe same to be true.

2. The Easement Lands being acquired by the Grantee pursuant to the Easement are being acquired for the purpose of an electricity distribution line, electricity transmission line, hydrocarbon distribution line or hydrocarbon transmission line within the meaning of Part VI of the *Ontario Energy Board Act*, 1998, in respect of which this Statutory Declaration has been made pursuant to sub-clause 50(3)(d) of the *Planning Act* (Ontario), as amended.

AND I MAKE THIS SOLEMN DECLARATION conscientiously believing it to be true and knowing that it is of the same force and effect as if made under oath.

STATE OF FLORIDA )

ss:

)

)

COUNTY OF PALM BEACH

Michael O'Sullivan, Vice President

"I have the authority to bind the corporation"

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_ by Michael O'Sullivan, as Vice President of Goshen Wind, Inc., a company incorporated pursuant to the laws of the Province of New Brunswick and authorized to conduct business in the Province of Ontario,.

In witness whereof I hereunto set my hand and official seal.

(Seal)

Notary Public:

My Commission Expires:

Filed: 2013-04-03 Goshen Wind, Inc. Exhibit F Tab 1 Schedule 3 Pages: 35

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# LICENSE AND OPTION AGREEMENT (INTERCONNECTION)

#### LICENSE AND OPTION AGREEMENT

THIS LICENSE AND OPTION AGREEMENT ("Agreement") is made as of the \_\_\_\_\_\_\_ day of \_\_\_\_\_\_, 2013 (hereinafter referred to as the "Effective Date") by and between \_\_\_\_\_\_\_, whose mailing address is \_\_\_\_\_\_\_ (hereinafter, collectively referred to as "Grantor") and GOSHEN WIND, INC., whose mailing address is 390 Bay Street, Suite 1720, Toronto, ON, M5H 2Y2, Canada ("Grantee"), who are sometimes individually referred to herein as a "Party" and collectively, as "Parties."

#### RECITALS

A. Grantor is the registered and beneficial owner of an estate in fee simple, subject, however, to the exceptions, conditions, encumbrances, liens and interests contained in or noted upon the existing parcel register attached hereto as **Schedule A** of and in that certain parcel or tract of land situate, lying and being in the Province of Ontario as more particularly described in the attached Schedule A ("**Grantor's Property**"), and Grantee desires to construct and operate an interconnection facility on a portion of Grantor's Property to serve a wind energy project, all or a portion of which will be located on Grantor's Property and/or on other lands within the vicinity of Grantor's Property ("**Wind Energy Center**").

B. Grantor desires to grant and convey to Grantee an irrevocable option for the right, liberty, privilege, and easement for the construction, operation and maintenance of interconnection facilities and appurtenant facilities (collectively, "Interconnection Facilities") on up to approximately four (4) acre portion of Grantor's Property as more particularly described and depicted in the preliminary plan attached hereto as Schedule A-1 ("Interconnection Parcel") in order to serve the Wind Energy Center. For the purposes of this Option Agreement, Interconnection Facilities shall include any and all buildings, switchyard facilities, circuit breakers (all fenced in), control and protective devices, and metering facilities or any other devices, buildings, electrical transmission cables (above ground or below ground), required to connect the Wind Energy Project from the Interconnection Facilities, to and with the applicable transmission system, up to and on a delivery point.

IN CONSIDERATION of Ten Dollars and No Cents (\$10.00) and other good and valuable consideration, as well as, the mutual benefits derived herefrom, the receipt and sufficiency of which are hereby acknowledged, the Parties agree as follows:

# 1. Option to Enter into Easement, License & Compensation.

1.1 Subject to the terms and conditions set out herein, Grantor hereby grants Grantee the exclusive and irrevocable option ("**Option**") to acquire an easement and rights-of-way in respect of the Interconnection Parcel (hereinafter referred to as "Interconnection Easement") for the purposes of, among other things, owning, constructing and/or operating the Interconnection Facilities on the Interconnection Parcel. The Option shall be exercisable by Grantee upon its sole discretion. If, at the time Grantee exercises the Option, the owner of Grantor's Property is Grantor as first named above, then Grantee is irrevocably authorized and directed by Grantor to finalize the Interconnection

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Easement attached hereto as **Schedule C** by completing any missing information such as the Commencement Date and the description of the Interconnection Parcel and thereafter, Grantee shall execute the Interconnection Easement and provide two (2) completed and fully executed Interconnection Easement to Grantor. If, at the time Grantee exercises the Option, the owner of Grantor's Property is not Grantor as first named above, then such Grantor agrees that it shall duly execute and deliver to Grantee on such date as is specified by Grantee to Grantor, the Interconnection Easement in substantially the same form as attached hereto as Schedule C upon the terms and conditions provided therein. In the event such Grantor fails to execute and deliver to Grantee the Interconnection Easement by the date specified by Grantee to Grantor, then such Grantor hereby irrevocably constitutes and appoints Grantee the true and lawful attorney of such Grantor to complete any missing information contained in the Interconnection Easement and all other instruments, approvals and documents as provided for in the Interconnection Easement.

1.2 The Option shall be exercisable by Grantee at any time from the Effective Date up to and including, the date which is five (5) years after the Effective Date ("**Option Term**"), provided that prior to the expiry of the Option Term, if Grantee shall give written notice to Grantor that Grantee has submitted, or is in the process of submitting, an application which references this Option and/or Grantor's Property to the Ontario Power Authority (or equivalent government or public authority) for approval to generate, transmit or distribute energy from wind turbine(s), then the Option Term shall automatically be extended on the same terms, conditions and privileges as hereunder, for an additional two successive periods one (1) year each ("Extended Option Term") at the payment then being paid as herein provided for each additional one (1) year period. Such Extended Option Term shall be subject to all the provisions hereof, excluding this provision for extension. The Option Term and the Extended Option Term may sometimes be collectively referred to herein as the "Term".

1.3 In consideration of the Option granted by Grantor, Grantee shall make an annual payment to Grantor in the amount of **Sector Constants** for the Option during the Option Term in respect of the Interconnection Parcel, plus all applicable harmonized sales taxes and any other applicable sales or value added taxes (the "**Option Payment**"). The Option Payment shall be made by Grantee to Grantor within sixty (60) days of the Effective Date.

1.4 Grantor hereby grants to Grantee, during the Term, the right in the nature of an irrevocable license to enter upon Grantor's Property, at such times as are agreed to by the Parties, acting reasonably, to allow Grantee to undertake studies and tests on, above and below Grantor's Property. In the event Grantee installs any permanent or temporary improvements within cultivated portions of Grantor's Property, and in the event any of the above materially interferes with Grantor's farming practices, Grantee shall pay Grantor a one-time payment for crop damage resulting from the construction or installation of the hereinabove described improvements. Grantor shall provide written notice to Grantee outlining the basis for Grantor's assertion of damage to Grantor's Property, the exact nature of damage, the source of the assertion that the alleged damage is the result of the exercise by Grantee of the rights, privileges and license granted by this Agreement and satisfactory evidence of the damage including documentation showing the extent of the damage and the financial impact of such damage. In the event that the Parties cannot agree at any time on the amount of

damage payable to Grantor for such crop damage, the compensation paid by Grantee to Grantor shall be the damages for the crops lost or destroyed in the area compacted as calculated below; in consideration of this payment, no additional damages shall be paid in future years for that episode of compaction. Damages will be calculated by the following formula: Unit Price x Unit Yield Per Acre x Acres Damaged = Damages. Prices for damaged or destroyed crops will be based on the average of the previous March 1st and September 1st using the prices for the crop provided by the local grain elevator. Yield will be the average of the previous three (3) years' yields according to Grantor's records for the smallest parcel of land that includes the damaged area. If Grantor does not have yield records available, the Parties will use commonly used yield information available for the area. The Parties shall try in good faith to agree to the extent of damage and acreage affected. If they cannot agree, they shall have the area measured and extent of damage assessed by an impartial party such as a crop insurance adjuster or extension agent. Any costs for such assessment shall be paid by Grantee. Payment shall be made within sixty (60) days after determining the extent of the damage.

#### 2. <u>Covenants, Representations & Warranties.</u>

2.1 Grantor represents and warrants that, as of the Effective Date, Grantor is:

(a) at least eighteen (18) years of age and either not a spouse within the meaning of the *Family Law Act*, R.S.O. 1990, c.F.3, as amended; or

(b) at least eighteen (18) years of age and if a spouse within the meaning of the *Family* Law Act, R.S.O. 1990, c.F.3, as amended, then this Agreement has been executed by both spouses together comprising Grantor or consented to in writing by Grantor's spouse as is evidenced by the signature of the spouse on the Consent attached hereto as **Schedule B**; or

(c) if a corporation, then no building(s) located on Grantor's Property has been ordinarily occupied by any officer, director or shareholder of the corporation or by any of their spouses as a family residence or matrimonial home within the meaning of the *Family Law Act*, R.S.O. 1990, c.F-3, as amended.

2.2 Grantee hereby represents and warrants that it is a limited partnership, duly organized, validly existing and in good standing under the laws of Ontario and has the right, power and privilege to execute and deliver this Agreement and to perform its obligations hereunder.

2.3 Grantor acknowledges that Grantor has had the full opportunity to obtain independent legal representation or advice in connection with this Agreement.

2.4 Grantor hereby agrees and covenants:

(a) that subsequent to the execution and delivery of this Agreement and without any additional consideration made or cost to Grantor, Grantor will execute and deliver or cause to be a secure and deliver or cause to be a secure of and delivered any further legal instruments, including, without limitation, any required consents, certificates or acknowledgements in favour of Grantee's lenders, and perform any acts which are or may become necessary to effectuate the purposes of this Agreement and to complete the transactions contemplated hereunder;

(b) - that Grantor will appoint Grantee to act as Grantor's agent for the purpose of executing such consents or authorizations as may be necessary for Grantee to make any application for re-zoning or site plan approval pursuant to this Agreement, and agrees to cooperate in any such applications; and

that any information which Grantor has access to or which comes into Grantor's (c) possession relating to Grantee's activities, including any wind assessment data or the terms and conditions of this Agreement (including the Interconnection Easement) (collectively, the "Confidential Information"), shall be held in the strictest confidence by Grantor, and Grantor shall not disclose any Confidential Information to any third party except as may be required by law, or on the same confidential basis as provided herein and then only to Grantor's prospective purchasers or legal and financial advisors who have a bona fide and actual need to know same ("Authorized Agents"); (ii) Grantor or the Authorized Agents will not use any such Confidential Information. other than as may be required or permitted to perform any of its obligations under this Agreement; and (iii) Grantor or its Authorized Agents will not exploit (whether for commercial or other purposes) or otherwise use any such Confidential Information. Grantor acknowledges that a breach of any of the provisions contained herein would cause Grantee to suffer loss which could not be adequately compensated for by damages and Grantee may, in addition to any other remedy or relief, enforce the performance of the provisions of this Section by injunction or specific performance upon application to a court of competent jurisdiction without proof of actual damage. Upon the expiration or earlier termination of this Agreement, all Confidential Information will continue to be kept confidential by Grantor.

2.5 Grantee hereby covenants that should it elect to exercise the Option, it shall, at its sole cost and expense and prior to accessing Grantor's Property for any purpose related to the siting, assessment or construction of the Interconnection Facilities contemplated to be erected by Grantee herein, provide and maintain in full force and effect with financially responsible insurance carriers, insurance with commercially reasonable coverages, which shall remain in effect during the term of the Interconnection Easement or any extension thereof or as otherwise specified herein and which shall, if applicable, include (but not be limited to):

(a) automobile liability insurance covering owned, non-owned, hired, leased and rented automobiles and automotive equipment providing coverage for injury, death, or property damage;

(b) commercial general liability insurance covering bodily injury, death, personal injury and damage to property; and

(c) workers compensation as required by the Ontario *Workplace Safety and Insurance Act* (Ontario) or similar legislation covering all persons employed by Grantee or subcontractors for work performed under this Agreement,

and Grantee shall, prior to starting work on the Interconnection Parcel, supply Grantor with a certificate of insurance outlining the applicable coverages and indicating that the coverages will not be cancelled, non-renewed, nor materially changed by endorsement or through issuance of other policies of insurance which restricts or reduces coverage, without ninety (90) days' advance written notice to Grantor.

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## -2.6 <u>Title Search</u>.

(a) If, after the Effective Date, Grantee conducts a title search and such search reveals that Grantor is not the legal and beneficial owner of Grantor's Property or does not have the legal right and authority to grant to Grantee, its employees, servants, agents, consultants, contractors and sub-contractors, the rights under this Agreement or has granted an easement, lease, financial encumbrance or other property right(s) related to Grantor's Property ("**Prior Encumbrance**") to any other person that would interfere with the rights granted to Grantee hereunder, Grantee may, in its sole discretion, terminate this Agreement effective immediately. If Grantee elects not to terminate this Agreement, mutual co-existence agreement or related agreements, that Grantee or its lender(s) may reasonably require. Without limiting the generality of the foregoing, Grantor covenants and agrees to obtain from any prior mortgagee of Grantor's Property, either a postponement of such mortgage to this Agreement and any Interconnection Easement or a non-disturbance agreement in favour of Grantee.

(b) If the title search reveals a Prior Encumbrance, Grantee, in its sole and absolute discretion, may decide to consult with the holder of such Prior Encumbrance and Grantor shall cooperate with Grantee to resolve any issues that may arise out of the exercise of the Option vis-à-vis the Prior Encumbrance with the goal of determining whether the Prior Encumbrance and the Interconnection Easement can co-exist over the Interconnection Parcel.

(c) Notwithstanding Section 2.6(b), Grantee may choose to terminate this Agreement at any time pursuant to Section 2.6(a).

2.7 Grantor hereby represents and warrants that it is the legal and beneficial owner in fee simple of Grantor's Property and has the legal right and authority to grant to Grantee, its servants, employees, agents, consultants, contractors and sub-contractors the rights under this Agreements on the terms and conditions set out herein and has not and will not grant an option, easement, lease or any other property rights related to Grantor's Property to any other person that would interfere with the rights granted to Grantee hereunder, save and except for any easements, petroleum or natural gas leases or any other property rights granted by Grantor prior to the Effective Date.

2.8 Grantor covenants and agrees to execute all applications, consents, permissions, agreements, postponements, partial discharges and any other documents which Grantee may require in connection with obtaining any and all approvals including, but not limited to renewable energy approvals, rezoning, governmental approvals, consents, permits or variances (collectively, "Approvals") and in connection with entering into by Grantee of any agreements with such governmental and public authorities as may be necessary to give due force and effect to and in furtherance of Grantee's applications, and Grantor shall produce all other documents and information which may be required in connection with such applications. All applications for Approvals shall be made by Grantee. Grantee agrees that the obligation of Grantor pursuant to this paragraph shall be restricted to execution of documents and production of documents and information and shall not impose upon Grantor any financial obligation whatsoever.

# 2.9 <u>Mutual Indemnities</u>.

(a) Grantee shall indemnify and hold harmless Grantor against all actions, suits, claims, demands and expenses made or suffered by any person or persons, in respect of loss, injury, damage or obligation to compensate, arising out of or in connection with or as a result of:

- (i) the negligence or wilful misconduct of Grantee; or
- (ii) any breach by Grantee of the terms and conditions of this Agreement,

provided that Grantee shall not be liable under this Section to the extent to which such loss, damage or injury is caused or contributed to by the negligence or default of Grantor, its servants or agents. For greater certainty, Grantee shall not be liable to Grantor for the actions of Grantor, its agents, employees, invitees or representatives who enter upon Grantor's Property.

(b) Grantor shall indemnify and hold harmless Grantee against all actions, suits, claims, demands and expenses made or suffered by any person or persons, in respect of loss, injury, damage or obligation to compensate, arising out of or in connection with, or as a result of the negligence or wilful misconduct of Grantor, as well as, in respect of any loss, injury or damage arising out of or in connection with, any breach by Grantor of the terms and conditions of this Agreement; provided that Grantor shall not be liable under this Section to the extent to which such loss, damage or injury is caused or contributed to, by the negligence or default of Grantee, its servants or agents. For greater certainty, Grantor shall not be liable to Grantee for the actions of: (i) Grantee, its agents, employees, or representatives who enter upon Grantor's Property, or (ii) any trespasser or unauthorized person who enters upon Grantor's Property.

(c) Notwithstanding the foregoing, the Parties hereto shall only be liable for reasonably anticipated and foreseeable damages.

#### 3. Termination.

3.1 Except as otherwise stipulated herein, this Agreement shall terminate at the earlier of:

(a) failure by Grantee to pay the requisite payments provided for hereunder, within thirty (30) days after written demand by Grantor, unless otherwise agreed to by the Parties;

(b) receipt by Grantor of notice from Grantee of Grantee's desire to terminate the Agreement;

(c) termination by Grantee pursuant to Section 2.6; or

(d)

the expiry of the Term of the Option as set out in Section 1.2.

3.2 The representations, warranties, covenants and agreements contained in Section 2 hereof shall survive the termination of this Agreement and remain in full force and effect.

3.3 In the event that this Agreement is terminated on the date stipulated in Section 3.1(b) (the "Early Termination Date"), Grantee shall be released from having to pay any further Option Payments under this Agreement.

4. <u>Notices</u>.

4.1 Any notice or other writing required or permitted to be given under this Agreement or for the purposes of this Agreement (referred to in this Section as a "**Notice**") to the other Party shall be sufficiently given if delivered personally, or if sent by prepaid registered mail or if transmitted by fax or other form of recorded communication tested prior to transmission to such other Party:

In the case of Notice to Grantee, to:

Goshen Wind, Inc. 390 Bay Street, Suite 1720 Toronto, ON M5H 2Y2, Canada Attention: Business Management Telephone: (416) 36409714

With a copy to:

Goshen Wind, Inc. 700 Universe Blvd. LAW/JB Juno Beach, FL 33408 Attention: General Counsel Telephone: (561) 691-2359 Facsimile: (561) 691-7103

In the case of Grantor, to:

Telephone:

or at such other address as the Party to whom such writing is to be given shall have last notified to the Party giving the same in the manner provided in this Section. Any notice personally delivered to the Party to whom it is addressed as provided in this Section shall be deemed to have been given and received on the day it is so delivered at such address, provided that if such day is not a Business Day then the notice shall be deemed to have been given and received on the Business Day next following such day. Any notice mailed to the address and in the manner provided for in this Section shall be deemed to have been given and received on the fifth Business Day next following the date of its mailing in Ontario. Any notice transmitted by fax shall be deemed to have been given and received on the first Business Day after its transmission. 4.2 For the purposes of this Section, the term "Business Day" means every day except Saturdays, Sundays and statutory holidays in the Province of Ontario.

#### 5. General Provisions.

5.1 This Agreement shall be governed by the laws of the Province of Ontario and the federal laws of Canada applicable therein.

5.2 All matters in dispute between the Parties pursuant to this Agreement shall be resolved by good-faith negotiation. If the Parties are unable to resolve amicably any dispute arising out of or in connection with this Agreement, each shall have all remedies available at law or in equity. Each Party waives all right to trial by jury and specifically agrees that trial of suits or causes of action arising out of this Agreement shall be to the Court. Time is of the essence with regard to the terms and conditions of this Agreement.

#### 5.3 <u>Assignment</u>.

(a) Subject to Subsection 5.3(c) below, this Agreement may be assignable by Grantor to a successor in title.

(b) Subject to Subsection 5.3(c) below, Grantee shall be able to assign this Agreement or any portion of its interest in Grantor's Property derived under the Agreement and the Interconnection Easement to be granted thereunder to one or more persons or entities without the prior consent of Grantor, including to its lender(s) as security for Grantee's obligations to such lender(s). Grantor shall execute and deliver any consent and acknowledgement reasonably requested by such lender.

(c) No assignment by either Grantee (except in the case of an assignment of this Agreement to its lender(s)) or Grantor shall be effective unless and until the assignee executes an assumption agreement ("Assumption Agreement") with respect to this Agreement agreeing to be bound by the terms hereof to the same extent as if it had been an original party hereto. For greater certainty, Grantor covenants and agrees that in the event Grantor transfers or conveys Grantor's Property or any portion thereof, Grantor will obtain from any such transferee or purchaser an Assumption Agreement in favour of Grantee.

5.4 This Agreement shall be binding upon and inure to the benefit of the Parties hereto, their respective heirs, executors, administrators and other legal representatives and, to the extent permitted hereunder, their respective successors and permitted assigns.

5.5 If any provision of this Agreement is determined to be invalid or unenforceable in whole or in part, such invalidity or unenforceability shall attach only to such provision (or part thereof) and everything else in this Agreement shall continue in full force and effect.

5.6 No change or modification of this Agreement shall be valid unless it is in writing and signed by each Party hereto.

5.7 This Agreement constitutes the entire agreement between the Parties hereto with respect to the subject matter of this Agreement. The Parties hereto acknowledge that there is no

representation, warranty, and agreement or understanding between them, whether express or implied, which has induced any of the Parties hereto to enter into this Agreement except as expressly stated herein.

5.8 No failure on the part of any Party to exercise, and no delay by any Party in exercising, any right under this Agreement shall operate as a waiver of such right, unless the Party gives written notice to the other Party of its intention to waive such right.

5.9 This Agreement shall commence on the Effective Date.

5.10 The section headings herein have been inserted for ease of reference only and shall not affect the construction or the interpretation of this Agreement.

5.11 This Agreement may be executed in several counterparts, each of which so executed shall be deemed to be an original, and such counterparts together shall constitute but one and the same instrument.

5.12 Delivery of this Agreement by facsimile transmission shall constitute valid and effective delivery.

5.13 Any monies to be paid pursuant to this Agreement shall be in Canadian funds.

5.14 This Agreement shall be effective to create an interest in Grantor's Property for the Term.

5.15 Grantee shall be entitled, at its cost and expense, to register this Agreement or a notice in respect thereof and any required reference plans in the Land Registry Office for the area in which Grantor's Property is situated and Grantor agrees to execute, at no cost to Grantee, all necessary instruments, plans and documentation for that purpose.

5.16 This Agreement shall be effective to create an interest in Grantor's Property only if the subdivision control provisions of the *Planning Act* (Ontario) are complied with.

IN WITNESS WHEREOF the Parties hereto have executed this Agreement on the date first above written.

Grantee:	
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Goshen Wind, Inc.

By:

Michael O'Sullivan, Vice President

.. .. ..

Date:

Grantor:

Witness

Print Name:

Witness

Print Name:

Date: \_\_\_\_\_

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## -----SCHEDULE-A

# TO LICENSE AND OPTION AGREEMENT

Copy of Parcel Register and Legal Description of Grantor's Property

BEING THE WHOLE OF PIN NO.

#### ----SCHEDULE A-1

# TO LICENSE AND OPTION AGREEMENT

# Preliminary Plan and Legal Description of Interconnection Parcel

# BEING THE WHOLE OF PIN NO.

(See attached)

## SCHEDULE B

# TO LICENSE AND OPTION AGREEMENT

#### **Consent of Spouse**

I, \_\_\_\_\_\_, being the spouse of \_\_\_\_\_\_, do hereby give my consent to the grant of license and the option made in the License and Option Agreement dated \_\_\_\_\_\_, 2013 in respect of the following property:

DATED this \_\_\_\_\_ day of \_\_\_\_\_\_, 2013.

WITNESS:

SPOUSE OF GRANTOR

Name:

Name:

Address:

Address:

#### SCHEDULE C

. .. . . . . .

# TO LICENSE AND OPTION AGREEMENT

# Form of Transfer of Interconnection Easement

(see attached)

THIS TRANSFER AND GRANT OF INTERCONNECTION EASEMENT (IN GROSS) ("Agreement") made as of the \_\_\_\_\_ day of \_\_\_\_\_, 2013 ("Effective Date"), between \_\_\_\_\_, whose mailing address is \_\_\_\_\_ ("Grantor") and Goshen Wind, Inc., whose mailing address is 390 Bay Street, Suite 1720, Toronto, ON, M5H 2Y2, Canada, ("Grantee").

# RECITALS

A. Grantor is the registered and beneficial owner of an estate in fee simple of and in that certain parcel or tract of land situate, lying and being in the Province of Ontario as more particularly described in the attached **Exhibit "A" ("Grantor's Property"**), and Grantee desires to construct and operate interconnection facilities and appurtenant facilities (collectively, **"Interconnection Facilities**"), on the portion of Grantor's Property hereinafter described to serve a wind energy project, all or a portion of which will be located on Grantor's Property and/or on other lands within the vicinity of Grantor's Property (**"Wind Energy Center"**). For the purposes of this Option Agreement, Interconnection Facilities shall include any and all buildings, switchyard facilities, circuit breakers (all fenced in), control and protective devices, and metering facilities or any other devices, buildings, electrical transmission cables (above ground or below ground), required to connect the Wind Energy Project from the Interconnection Facilities, to and with the applicable transmission system, up to and on a delivery point

B. Grantor desires to grant and transfer to Grantee an exclusive easement and right-ofway for the construction, operation and maintenance of Interconnection Facilities on a portion of Grantor's Property as more particularly described and depicted in the preliminary plan attached hereto as Exhibit"A-1" ("Interconnection Parcel") which Interconnection Parcel shall serve the Wind Energy Center.

IN CONSIDERATION of Ten Dollars and No Cents (\$10.00) and other good and valuable consideration as well as the mutual benefits derived herefrom, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

1. <u>Grant</u>. Grantor does hereby grant and transfer to Grantee, its licensees, sublessees, successors and assigns, the unobstructed and exclusive right, liberty and privilege of an easement and right-of-way upon, above, under, over and across the Interconnection Parcel for the purposes set out herein. Notwithstanding the foregoing provisions of this paragraph, it is Grantee's intention that once it has finalized the plans for location of the Interconnection Facilities (as hereinafter defined), which shall occur no later than One Hundred Fifty (150) days from the Effective Date, Grantee shall have the right at any time thereafter to amend the legal description of the Interconnection Parcel from what is currently identified in Exhibit"A-1". For greater certainty, Grantee shall have the right, at any time during the Term, and in its sole discretion, to amend the legal description of the Interconnection Parcel Plan") which identifies the amended legal description of the Interconnection Parcel that is the subject of the rights granted under this Agreement. If Grantee

elects to prepare a Final Interconnection Parcel Plan identifying the amended legal description of the Interconnection Parcel, Grantor hereby irrevocably authorizes and directs Grantee to deposit such plan on title to Grantor's Property. Upon the delivery by Grantee to Grantor of the Final Interconnection Parcel Plan, the description of the Interconnection Parcel as set out in **Exhibit"A-1"** shall automatically be replaced by the amended legal description of the Interconnection Parcel as set out in the Final Interconnection Parcel Plan without the requirement of any further action on behalf of either Grantor or Grantee, provided that Grantor agrees that it shall, at the request of Grantee, execute an amendment to this Agreement which specifically sets out the amended legal description of the Interconnection Parcel Plan and which reconfirms and ratifies the grant and transfer in favour of Grantee of the exclusive easement and right-of-way of the Interconnection Parcel, as hereby amended.

Grantor does hereby further grant and transfer to Grantee, its licensees, sublessees, successors and assigns a non-exclusive right, liberty and privilege of an easement and right-of-way for vehicular and pedestrian ingress and egress over, across and along the Grantor's Property to and from the Interconnection Parcel ("Roadway Easement"), including, by means of any existing roads or lanes on the Grantor's Property, or otherwise by such route or routes as Grantee or Grantor may construct from time to time, which Roadway Easement shall include the right of Grantee to construct, maintain and repair any new and existing temporary and permanent roadways and other means of ingress and egress over, across and along the Grantor's Property and to provide access to and egress from the Interconnection Parcel, including paving or surfacing of the roadways with asphalt, gravel or other roadway materials, and the construction and installation of culverts, bridges, drainage ditches, gates, cattle guards and similar structures and facilities (the "Roadway Improvements").

Grantee agrees to maintain and repair all Roadway Improvements located on the Grantor's Property for the joint use thereof by Grantor and Grantee for ingress and egress over, across, and along the Grantor's Property; provided, however, Grantor shall reimburse Grantee for any costs and expenses incurred by Grantee to repair any damage or perform any special maintenance of the roadway(s) caused by any person using the roadway with Grantor's permission.

## 2. <u>Term</u>.

2.1 Further to the Declaration attached hereto as **Exhibit "C,"** the term of this Agreement shall commence on \_\_\_\_\_\_\_, 201\_\_\_ ("**Commencement Date**") and shall expire on the day immediately preceding the fiftieth (50th) anniversary of the Commencement Date ("**Term**"), unless Grantee shall have notified Grantor in writing prior to the expiration of the Term that it is electing to terminate the Term pursuant to Section 23 of this Agreement.

3. <u>Use</u>.

3.1 Grantee shall have the exclusive right and privilege to use the Interconnection Parcel for the purposes of, *inter alia*, erection, installation, construction, operation, inspection, repair, replacement, patrol and maintenance of Interconnection Facilities and equipment and vehicles

associated therewith, attachments and appurtenant equipment and other buildings required for the Interconnection Facilities and any and all other uses consistent with the operation the Interconnection Facilities (, together with the right and privilege from time to time to reconstruct, inspect, alter, improve, change the voltage, as well as the nature or physical characteristics of, replace, remove or relocate such Interconnection Facilities or any part of them upon, across, over or under the Interconnection Parcel with all rights and privileges necessary or convenient for the full enjoyment or the use thereof for the herein described purposes and solely for the use, transmission and delivery of electrical energy produced by the Wind Energy Center. As used herein, the "Commercial Operation Date" shall mean the date when all the Interconnection Facilities shall have been constructed and installed and the entire Wind Energy Center has achieved the status of a commercially operable wind-powered electrical generation and transmission facility.

3.2 The use of the Interconnection Parcel by Grantee shall be at the sole risk and expense of Grantee. Grantee agrees to warn its employees, agents, contractors and invitees of the fact that the electrical Facilities and appurtenances installed or to be installed within the Interconnection Parcel are of high voltage electricity and agrees to use, or cause to be used, reasonable safety and precautionary measures when working under or near the Interconnection Facilities.

3.3 The rights and privileges hereby granted shall include, without limiting the generality of the foregoing, the right to erect, install, construct, operate, maintain, inspect, patrol, remove, replace; reconstruct, relocate, alter and repair on the Interconnection Parcel the Interconnection Facilities as Grantee may deem necessary for the full enjoyment of any or all of the rights and privileges herein granted

3.4 Grantee, its tenants, officers, agents, servants, employees, contractors and licensees, with or without vehicles, tools, equipment, apparatus and materials of whatsoever nature and kind, shall have the full, free and uninterrupted right to enter upon, use and occupy the Interconnection Parcel for all purposes connected with, or incidental to, the rights and privileges herein granted including, without limitation, the right to make and keep the Interconnection Parcel free from brush, trees, damaging growths, water in dangerous quantities and other obstructions. Where Grantee reasonably considers it necessary by reason of the nature or condition of Grantor's Property or the circumstances then existing, Grantee shall have the right to go on or across any part of Grantor's Property for the purpose of gaining access to the Interconnection Parcel.

3.5 Grantee will erect, install and construct the Interconnection Facilities within, upon or over the Interconnection Parcel in a proper and workmanlike manner so as to do as little injury as possible to Grantor's Property and will keep and maintain the same in good repair and will at the termination of this Agreement take down, dismantle and remove from the Interconnection Parcel the Interconnection Facilities and will fill up all holes caused by such removal and restore the surface of the Interconnection Parcel as far as may be reasonable and possible.

#### 4.- Indemnification.

4.1 Grantee shall indemnify and hold harmless Grantor against all actions, suits, claims, demands and expenses made or suffered by any person or persons, in respect of loss, injury, damage or obligation to compensate, arising out of or in connection with or as a result of:

- (a) the negligence or wilful misconduct of Grantee;
- (b) any breach by Grantee of the terms and conditions of this Agreement; or
- (c) the property of Grantee or the operation of the property of Grantee,

provided that Grantee shall not be liable under this Section to the extent to which such loss, damage or injury is caused by the negligence or default of Grantor or Grantor's servants or agents. For greater certainty, Grantee shall not be liable to Grantor for the actions of (i) Grantor, its agents, employees, or representatives who enter upon Grantor's Property, or (ii) any trespasser or unauthorized person who enters upon Grantor's Property.

4.2 Grantor shall indemnify and hold harmless Grantee against all actions, suits, claims, demands and expenses made or suffered by any person or persons, in respect of loss, injury, damage or obligation to compensate, arising out of or in connection with, or as a result of the negligence or wilful misconduct of Grantor, as well as in respect of any loss, injury or damage arising out of or in connection with, any breach by Grantor of the terms and conditions of this Agreement; provided that Grantor shall not be liable under this Section to the extent to which such loss, damage or injury is caused by the negligence or default of Grantee, its servants or agents. For greater certainty, Grantor shall not be liable to Grantee for the actions of (i) Grantee, its agents, employees, or representatives who enter upon Grantor's Property, or (ii) any trespasser or unauthorized person who enters upon Grantor's Property.

4.3 All accrued and undischarged obligations under this Section shall survive the expiration or termination of this Agreement for the applicable statute of limitations period.

4.4 Notwithstanding the foregoing, the Parties hereto shall only be liable for reasonably anticipated and foreseeable damages.

5. <u>Environmental Representations</u>. Grantor represents and warrants that, to the best of Grantor's knowledge, Grantor's Property is not and has not been in violation of any Environmental Laws, and Grantor has not received any notice or other communication from any governmental authorities alleging that Grantor's Property is in violation of any Environmental Laws. "Environmental Laws" shall mean and refer to any statute, law, decree, ordinance or regulation which relates to or deals with human health or the environment, including, without limitation, all regulations promulgated by a regulatory body-pursuant to any statute, law, ordinance or regulation.....

or toxic substances under any federal, provincial, or local law or regulation. Grantor represents and warrants that, except as disclosed to Grantee in writing, to the best of Grantor's knowledge, no underground storage tanks and no Hazardous Materials are or were located on Grantor's Property during or prior to Grantor's ownership of Grantor's Property. Grantor shall not violate in a material way any Environmental Law relating to Grantor's Property. All accrued and undischarged obligations under this clause shall survive the expiration or termination of this Agreement.

6. <u>Roads</u>. Grantor agrees that Grantee may construct or improve roads from time to time on the Grantor's Property (as provided for in Section 1 above) for the purposes of access, ingress and egress to the Interconnection Parcel.

7. Taxes. Grantee shall pay any increase in the real property taxes on the Interconnection Parcel that is directly attributable to the installation of Interconnection Facilities or to a reclassification of the Interconnection Parcel because of the rights and privileges created under this Agreement. If the Interconnection Facilities are subject to real property taxes, Grantee shall request that the Interconnection Facilities be separately assessed and that taxing authorities bill Grantee directly for taxes attributable to the Interconnection Facilities. Grantee shall not be liable for taxes attributable to any other facilities or other installations of any kind installed by Grantor or others on the Interconnection Parcel or for any increase due to any other cause. Grantee agrees to reimburse Grantor for any taxes paid by Grantor that are properly payable by Grantee under the terms of this Agreement. To receive reimbursement, Grantor must submit the real property tax bill payable by Grantor to Grantee for reimbursement within a reasonable time after Grantor receives the bill from a taxing authority. The parties agree to fully cooperate to obtain any available tax refunds or tax abatements.

8. <u>Warranties and Representations</u>. Grantor represents and warrants to Grantee that he/she has sufficient right, title and interest in and to the Interconnection Parcel to convey the rights and interests transferred and granted herein. Grantor represents and warrants that, as of the Effective Date, Grantor is:

(a) at least eighteen (18) years of age and either not a spouse within the meaning of the *Family Law Act*, R.S.O. 1990, c.F.3, as amended; or

(b) at least eighteen (18) years of age and if a spouse within the meaning of the *Family* Law Act, R.S.O. 1990, c.F.3, as amended, then this Agreement has been executed by both spouses together comprising Grantor or consented to in writing by Grantor's spouse as is evidenced by the signature of the spouse on the Consent attached hereto as **Exhibit "B"**; or

(c) if a corporation, then no building(s) located on Grantor's Property has been ordinarily occupied by any officer, director or shareholder of the corporation or by any of their spouses as a family residence or matrimonial home within the meaning of the *Family Law Act*, R.S.O. 1990, c.F-3, as amended.

Grantee hereby represents and warrants that it is a limited partnership, duly organized, validly existing and in good standing under the laws of Ontario and has the right, power and privilege to execute and deliver this Agreement and to perform its obligations hereunder.

#### 9. Assignment; Mortgage Rights.

Grantee, upon notice to Grantor, but without Grantor's consent or approval, may 9.1 mortgage, charge, collaterally assign, or otherwise encumber and grant security interests in all or any part of its interest in the Agreement and the Interconnection Parcel. These various security interests in all or a part of this Agreement and the Interconnection Parcel are collectively referred to as "Mortgages" and the holders of the Mortgages, their designees and assigns are referred to as "Mortgagees." Grantee's notice to Grantor shall include the name and address of each Mortgagee and/or Assignee (as hereinafter defined). Grantee shall also have the right without Grantor's consent to sell, convey, sub-lease, or assign all or any of Grantee's interests in this Agreement and in the Interconnection Parcel, or to grant sub-easements co-easements, separate easements, licenses or similar rights, however denominated (collectively, "Assignment"), to one or more persons or entities (collectively, "Assignees"). Assignees and Mortgagees shall use the Interconnection Parcel only for the uses permitted under the Agreement. Assignees and Mortgagees shall have all rights and remedies allowed them under then existing laws except as limited by their individual agreements with Grantee, provided that under no circumstances shall any Mortgagee or Assignee have any greater rights of ownership or use of the Interconnection Parcel than the rights granted to Grantee in the Agreement.

9.2 Grantor agrees to consent in writing to financing documents as may reasonably be required by Mortgagees. As a precondition to exercising any rights or remedies related to any alleged default by Grantee under this Agreement, Grantor shall give written notice of the default to each Mortgagee and Assignee at the same time it delivers notice of default to Grantee, specifying in detail the alleged event of default and the required remedy. Each Mortgagee and Assignee shall have the same amount of time to cure the default as to Grantee's entire interest or its partial interest in the Interconnection Parcel as is given to Grantee and the same right to cure any default as Grantee or to remove any property of Grantee, Mortgagees or Assignees located on the Interconnection Parcel. The cure period for each Mortgagee and Assignee shall begin to run at the end of the cure period given to Grantee in the Agreement, but in no case shall the cure period for any Mortgagee or Assignee be less than ninety (90) days after receipt of the default notice. Failure by Grantor to give a Mortgagee or Assignee notice of default shall not diminish Grantor's rights against Grantee, but shall preserve all rights of the Mortgagee or Assignee to cure any default and to remove any property of Grantee in the Interconnection Parcel.

9.3 Any Mortgagee or Assignee that does not directly hold an interest in the Interconnection Parcel, or whose interest is held solely for security purposes, shall have no obligation or liability under this Agreement prior to the time the Mortgagee or Assignee directly holds an interest in this Agreement, or succeeds to absolute title to Grantee's interest. A Mortgagee or Assignee shall be liable to perform obligations under this Agreement only for and during the period it directly holds such interest or absolute title. Any Assignment provided for under this Agreement shall release Grantee or other assignor from obligations accruing after the date that liability is assumed by the Assignee.

9.4 To prevent termination of this Agreement, or any partial interest in this Agreement, Grantee, any Mortgagee or Assignee shall have the right, but not the obligation, at any time to perform any act necessary to cure any default and to prevent the termination of this Agreement or any interest in the Agreement and Grantor agrees to accept the rectification of any default by any Mortgagee or Assignee as if it was rectified by Grantee.

9.5 In the event of an uncured default by the holder of Grantee's entire interest in this Agreement, or in the event of a termination of this Agreement by agreement, by operation of law or otherwise, each Mortgagee or Assignee of an interest in the Agreement that is not in default of its obligations, shall have the right to have Grantor either recognize the Mortgagee's or Assignee's interest or grant a new agreement substantially identical to this Agreement. Under the new easement, the Mortgagee or Assignee shall be entitled to, and Grantor shall not disturb, Mortgagee's or Assignee's or Assignee's continued use and enjoyment for the remainder of the Term and any renewal period, or such shorter term as an Assignee may otherwise be entitled pursuant to its Assignment.

9.6 If any default by Grantee under this Agreement cannot be cured without obtaining possession of all or part of the Interconnection Parcel, then any such default shall be deemed remedied if a Mortgagee or Assignee: (a) within ninety (90) days after receiving notice from Grantor acquires possession of all or part of the Interconnection Parcel, or begins appropriate judicial or nonjudicial proceedings to obtain the same; (b) diligently prosecutes any such proceedings to completion; and (c) after gaining possession of all or part of the Interconnection Parcel cures defects that are capable of being remedied and performs all other obligations as and when the same are due in accordance with the terms of this Agreement. If a Mortgagee or Assignee is prohibited by any court or by operation of any bankruptcy or insolvency laws from commencing or prosecuting the proceedings described above, the ninety (90) day period specified above for commencing proceedings shall be extended for the period of such prohibition.

9.7 Grantor shall execute estoppel certificates (certifying as to truthful matters, including without limitation that no default then exists under this Agreement, if such be the case), consents to assignment and non-disturbance agreements as Grantee or any Mortgagee or Assignee may reasonably request from time to time, which may incorporate the provisions contained in this Section 8. Grantor and Grantee shall cooperate in amending this Agreement from time to time to include any provision that may be reasonably requested by Grantee or any Mortgagee or Assignee to implement the provisions contained in this Agreement or to preserve a Mortgagee's security interest in the Interconnection Parcel.

9.8 Any Mortgagee, upon delivery to Grantor of notice of its name and address, for so long as its Mortgage is in existence shall be entitled to the following protections which shall be in addition to those granted elsewhere in this Agreement:

(a) A Mortgagee shall have the absolute right: (a) to assign its Mortgage; (b) to amend, renew, extend, restate or supplement its Mortgage; (c) to enforce its lien and acquire title to all or any portion of the Interconnection Parcel by any lawful means; (d) to take possession of and operate all or any portion of the Interconnection Parcel and to perform all obligations to be performed by Grantee under this Agreement, or to cause a receiver to be appointed to do so; and (e) to acquire all or any portion of the Interconnection Parcel by foreclosure or a quit claim in lieu of foreclosure and thereafter without Grantor's consent to assign or transfer all or any portion of the Interconnection Parcel to a third party. A Mortgagee which assigns or transfers Interconnection Parcel to a third party shall notify Grantor of the name and address of the Assignee or Transferee.

During any period of possession of the Interconnection Parcel by a Mortgagee (or a (b) receiver requested by a Mortgagee) and/or while any foreclosure proceedings instituted by a Mortgagee are pending, the Mortgagee shall pay or cause to be paid the fees and all other monetary charges payable by Grantee under this Agreement which have accrued and are unpaid at the commencement of the period and those which accrue thereafter during the period. Following acquisition of all or a portion of the Interconnection Parcel by the Mortgagee as a result of either foreclosure or a quit claim in lieu of foreclosure, or by a purchaser under a private or judicial power of sale, this Agreement shall continue in full force and effect and the Mortgagee or party acquiring title to the Interconnection Parcel shall, as promptly as reasonably possible, commence the cure of all defaults under this Agreement and thereafter diligently process such cure to completion, whereupon Grantor's right to terminate this Agreement based upon such defaults shall be deemed waived; provided, however, that the Mortgagee or party acquiring title to Grantee's interests shall not be required to cure those defaults which are not reasonably susceptible of being cured or performed by such party ("non-curable defaults"). Non-curable defaults shall be deemed waived by Grantor upon completion of foreclosure proceedings or a quit claim in lieu of foreclosure or acquisition of Grantee's interest in this Agreement by such party.

(c) Any Mortgagee or other party who acquires Grantee's interest in the Interconnection Parcel pursuant to foreclosure or a quit claim in lieu of foreclosure shall not be liable to perform the obligations imposed on Grantee by this Agreement incurred or accruing after the party no longer has ownership or possession of the Interconnection Parcel.

(d) If this Agreement terminates because of Grantee's default, as a result of a foreclosure, or if this Agreement is rejected, disaffirmed, resiliated, repudiated or disclaimed pursuant to bankruptcy law or other law affecting creditor's rights and, within ninety (90) days after such event, Grantee or any Mortgagee or Assignee shall have arranged to the reasonable satisfaction of Grantor for the payment of all fees or other charges due and payable by Grantee as of the date of such event, then Grantor shall execute and deliver to Grantee or such Mortgagee or Assignee or to a designee of one of these parties, as the case may be, a new agreement to the Interconnection Parcel which (i) shall be for a term equal to the remainder of the Term, including any renewal period before giving effect to such rejection, resiliation, disclaimer, repudiation or termination; (ii) shall contain the same covenants, agreements, terms, provisions and limitations as this Agreement (except for any requirements that have been fulfilled by Grantee or any Mortgagee or Assignee prior to rejection, resiliation, disclaimer, repudiation of this Agreement); and, (iii) shall include that portion of the Interconnection Parcel in which Grantee or such other Mortgagee or Assignee had an interest on the date of rejection, resiliation, disclaimer, repudiation or termination.

(e) After the termination, resiliation, repudiation, rejection, disclaimer or disaffirmation of this Agreement and during the period thereafter during which any Mortgagee shall be entitled to enter into a new agreement for the Interconnection Parcel, Grantor will not terminate the rights of any Assignee unless in default under its Assignment.

(f) If more than one Mortgagee makes a written request for a new agreement pursuant to this provision, the new agreement shall be delivered to the Mortgagee requesting such new agreement whose Mortgage is prior in lien, and the written request of any other Mortgagee whose lien is subordinate shall be void and of no further force or effect.

(g) The provisions of this Section shall survive the termination, rejection, disclaimer, resiliation, repudiation or disaffirmation of this Agreement and shall continue in full force and effect thereafter to the same extent as if this Section were a separate and independent contract made by Grantor, Grantee and each Mortgagee, and, from the effective date of such termination, rejection, disclaimer, resiliation, repudiation or disaffirmation of this Agreement to the date of execution and delivery of such new agreement, such Mortgagee may use and enjoy the Interconnection Parcel without hindrance by Grantor or any person claiming by, through or under Grantor; provided that all of the conditions for the new agreement as set forth above are complied with.

(h) Notwithstanding any provision of this Agreement to the contrary, the parties agree that so long as there exists an unpaid Mortgage, this Agreement shall not be modified or amended, and Grantor shall not accept a surrender, cancellation or release and abandonment of all or any part of this Agreement or the Interconnection Parcel from Grantee, prior to expiration of the Term without the prior written consent of the Mortgagee. This provision is for the express benefit of and shall be enforceable by each Mortgagee as if it were a party named in this Agreement.

(i) There shall be no merger of this Agreement with the fee estate in the Interconnection Parcel by reason of the fact that this Agreement, directly or indirectly, by or for the account of any person or persons who shall own any interest in the fee estate. No merger shall occur unless and until all persons at the time having an interest in the fee estate in the Interconnection Parcel and all persons (including each Mortgagee) having an interest in this Agreement or in the estate of Grantor and Grantee shall sign and register a written instrument effecting such merger.

(j) On the commencement of the Term, the Interconnection Parcel shall be free and clear of all monetary liens other than those expressly approved by Grantee. Thereafter, any assignment of this Agreement, mortgage, charge, deed of trust or other monetary lien placed on the Interconnection Parcel by Grantor, or permitted by Grantor to be placed or to remain on the Interconnection Parcel, shall be subject to this Agreement, to any Assignment or Mortgage then in existence on the Interconnection Parcel, to Grantee's right to encumber the Interconnection Parcel, and to any and all documents executed or to be executed by Grantor in connection with Grantee's development of all or

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any part of the Interconnection Parcel. Grantor agrees to cause any monetary liens placed on the Interconnection Parcel by Grantor in the future to incorporate the conditions of this Section.

(k) At Grantee's request, Grantor shall amend this Agreement to include any provision which may reasonably be requested by a proposed Mortgagee; provided, however, that such amendment shall not impair any of Grantor's rights under this Agreement or increase the burdens or obligations of Grantor under this Agreement. Upon the request of any Mortgagee, Grantor shall execute any additional instruments reasonably required to evidence such Mortgagee's rights under this Agreement.

10. <u>Governing Law</u>. This Agreement shall be governed by and construed in accordance with the laws of the Province of Ontario, Canada, without reference to the conflict of laws principles thereof. The parties hereto agree that any rule of construction to the effect that ambiguities are to be resolved in favor of any particular party shall not be employed in the interpretation hereof, and is hereby waived. Any references herein to specific legislation shall be deemed a reference to amending or successor legislation thereto once same is enacted and in force.

11. <u>Registration</u>. Grantee shall be entitled, at its cost and expense, to register this Agreement or a notice in respect thereof, any amendments to this Agreement or any notice in respect thereof pursuant to Section 1 hereof, and any required reference plans, surveys or sketches in the applicable Land Registry Office having jurisdiction over the Grantor's Property, and Grantor agrees to execute, at no cost to Grantee, all necessary instruments, plans and documentation for that purpose.

12. <u>Income Tax Act</u>. Prior to the Commencement Date, Grantor shall deliver to Grantee a certificate issued under the provisions of Section 116 of the Income Tax Act (Canada) or satisfactory evidence by way of statutory declaration that Grantor is not then a non-resident of Canada within the meaning of the *Income Tax Act* (Canada). In the event that Grantor's residency status changes at any time during the Term, Grantor shall provide prompt written notice of same to Grantee.

13. <u>Default</u>. Notwithstanding anything herein contained to the contrary, Grantee shall not be in default in the performance of any of its covenants or obligations under this Agreement, including the payment of compensation or rental, unless and until Grantor has notified Grantee of such default in writing and Grantee has failed to commence action to remedy the same within forty-five (45) days of receipt of such notice and thereafter fails to diligently continue to complete such remedial action.

14. Notice. All notices, communications, payments and deliveries (collectively called the "Notices") to be given hereunder shall be given in writing. All such Notices and all payments to be tendered hereunder may be given personally or by registered letter addressed to the party to whom the Notice is to be given. When delivered personally, such Notice shall be deemed received on the day of delivery, and when mailed, such Notice shall be deemed to be given to, and received by, the addressee four (4) days after the mailing thereof, postage prepaid, provided however that if a Notice

is mailed and a disruption of postal services occurs before the date of deemed receipt of such Notice, such Notice shall not be deemed to be received until the expiration of four (4) days following the resumption of postal service.

15. <u>Addresses</u>. Unless changed by written notice the addresses of the parties hereto shall be:

In the case of Notice to Grantee, to:

Goshen Wind, Inc. 390 Bay Street, Suite 1720 Toronto, ON, M5H 2Y2, Canada Attention: Business Management Telephone: (416) 364-9714

With a copy to:

Goshen Wind, Inc. 700 Universe Blvd. LAW/JB Juno Beach, FL 33408 Attention: General Counsel Telephone: (561) 691-2359 Facsimile: (561) 691-7103

In the case of Grantor, to:

Telephone:

16. <u>Severability</u>. If, and to the extent that, any court of competent jurisdiction determines that it is impossible to construe any provision of this Agreement and as a consequence holds that provision to be invalid, such holding shall not affect the validity of the other provisions of this Agreement, which shall remain in full force and effect.

17. <u>Enurement.</u> This Agreement and everything herein contained shall enure to the benefit of and be binding upon Grantor, his/her heirs, executors, administrators, successors and assigns and upon Grantee, its successors and assigns.

18. <u>Compensation</u>. Grantee shall pay Grantor the amounts set forth in Exhibit "D" as the consideration for the Agreement.

19. Discharge of Encumbrances. Grantee may at its option pay or discharge all or part of any balance owing under any agreement for sale or mortgage, or of any withholding or other tax, charge, lien or encumbrance of any kind or nature whatsoever which may now or hereafter exist on or against or in any way affect the Interconnection Parcel, in which event Grantee shall be subrogated to the rights of the holder or holders thereof, and may in addition thereto, at its option, reimburse itself by applying on account of repayment of the amount so paid by it the rentals or other sums accrued or accruing to Grantor under the terms of this Agreement. Any sums so applied shall, for all purposes of this Agreement, be deemed to have been paid to and received by Grantor in payment of such rentals or other sums accrued or accruing to Grantor under the terms of this Agreement. Grantor also agrees to obtain from any prior mortgagee of Grantor's Property, either a postponement of such mortgage or charge to this Agreement or a non-disturbance agreement in favour of Grantee.

20. Approvals. Grantor covenants and agrees to execute all applications, consents, permissions, agreements, postponements, site plan control agreements, partial discharges and any other documents which Grantee may require in connection with obtaining any renewable energy approvals, rezoning, governmental approvals, consents, permits or variances (collectively, "Approvals") and in connection with entering into by Grantee of any agreements with such governmental and public authorities as may be necessary to give due force and effect to and in furtherance of Grantee's applications, and Grantor shall produce all other documents and information which may be required in connection with such applications. All applications for Approvals shall be made by Grantee, at its sole cost and expense, and any costs to Grantor associated with such Approvals shall be borne by Grantee. Grantee agrees that the obligation of Grantor pursuant to this section shall be restricted to execution of documents and production of documents and information and shall not impose upon Grantor any financial obligation whatsoever.

21. <u>Fencing and Access</u>. Grantee shall have the full, free and exclusive right to fence the Interconnection Parcel or so much thereof as it, in its sole and absolute discretion, may deem necessary in the exercise of any of its rights and privileges herein granted. Grantor, and all persons claiming by, through or under Grantor, may be denied access to, and use of, the Interconnection Parcel or so much thereof as Grantee, in its sole and absolute discretion, may deem necessary from time to time for the safe and efficient use and operation of the Interconnection Facilities.

22. Equity. Grantor covenants with Grantee that upon Grantee, its successors and assigns, performing and observing the covenants and conditions on its part to be performed and observed, Grantee, its successors and assigns, shall peaceably hold and enjoy the rights, liberties, privileges and easement hereby granted during the period as aforesaid. Notwithstanding any rule of law or equity, all property, improvements and equipment placed or operated on the Interconnection Parcel by or on behalf of Grantee shall, at all times, remain the personal property of Grantee even though attached to Grantor's Property.

23. <u>Termination</u>. In the event Grantee no longer requires the right to maintain. Interconnection Facilities on the Interconnection Parcel, it may remove the Interconnection Facilities. Grantee may also, if it so chooses, elect to terminate all rights and obligations hereunder. Upon Grantee so electing to terminate the rights hereunder, Grantee shall remove all Interconnection Facilities from the Interconnection Parcel and shall restore the Interconnection Parcel to the same condition, to the extent such restoration is practical, as the Interconnection Parcel was prior to entry thereon and use thereof by Grantee, and Grantee shall remove and discharge any instrument or encumbrance registered against title to the Interconnection Parcel and related to its interest in the Interconnection Parcel. If Grantee should terminate this agreement within twenty (20) years of the Effective Date, the Grantee shall pay the Grantor a Termination Fee. The Termination Fee is equal to a onetime payment of the Net Present Value (NPV) of payments from the date of termination through year 20 of this agreement. The rate used to discount future cash flows to the present value, the Discount Rate, used in the NPV calculation is ten percent (10%). For greater clarity, the amount owed to Grantor by Grantee for the Termination Fee after each applicable annual payment is the amount shown as Remaining NPV in the attached Exhibit E.

24. <u>Sale</u>. Grantor shall notify Grantee promptly and in writing of any change in ownership of Grantor's Property and Grantee shall be entitled to continue to make payments to the existing Grantor until satisfied of the status of the new Grantor. Grantor will obtain an assumption agreement in favour of Grantee from any transferee or purchaser of Grantor's interest in Grantor's Property, pursuant to which such transferee or purchaser agrees to be bound by the terms of this Agreement.

25. <u>Covenant</u>. This Agreement is and shall be the same force and effect, to all intents and purposes, as a covenant running with the Interconnection Parcel and these presents, including all of the covenants and conditions herein contained, shall extend, be binding upon and inure to the benefit of the parties hereto, their executors, administrators, successors and assigns, as the case may be. Grantee agrees that this Agreement and the rights, privileges and easements granted pursuant thereto is an easement in favour of a generator, transmitter or distributor for the purpose of generation, transmission or distribution in accordance with Section 42.1 of the *Electricity Act*, 1998 (Ontario). Grantee shall have the right from time to time, in its sole discretion to grant franchises, licenses or assignments of its rights acquired hereunder, in whole or in part, to third parties, without further consideration becoming payable to Grantor herein.

26. <u>Miscellaneous</u>. The titles or headings inserted herein are for convenience of reference only and shall not affect the interpretation or construction of this Agreement. In the event of any conflict between a metric and imperial expression of measurement in this Agreement, the metric expression of measurement shall govern. IT IS UNDERSTOOD AND AGREED by and between the parties hereto that this Agreement and all of the covenants and conditions herein contained, shall extend to, be binding upon and enure to the benefit of, respectively, the executors, administrators, successors and assigns of Grantor, the owner or owners for the time being of Grantor's Property, and the successors and assigns of Grantee, and wherever the singular or masculine is used throughout this Agreement, the same shall be construed as meaning plural, or feminine, or a body corporate, where the context or the parties hereto so admit or require.

27. <u>No Affect on Statutory Rights</u>. Nothing in this Agreement shall adversely affect Grantee's ability to exercise any rights or powers authorized under any instrument issued by the

28. <u>Planning Act</u>. This Agreement and the provisions hereof, which create or are intended to create an interest in Grantor's Property and the Interconnection Parcel, shall be effective to create such an interest only if the subdivision control provisions of the *Planning Act*, as amended, are complied with. Notwithstanding the foregoing, Grantee hereby declares that the interests in Grantor's Property and the Interconnection Parcel being acquired by Grantee pursuant to this Agreement are for the purposes of a renewable energy generation facility or renewable energy generation project in accordance with Section 50(3)(d.1) or 50(5)(c.1) of the *Planning Act*.

#### [Remainder of page intentionally left blank, signature page follows]

NALL BATTING AND AND A

IN WIFNESS WHEREOF Grantor has affixed his/her/their hand(s) and seal(s) and Grantee has affixed its corporate seal duly attested to by the hands of its proper officers, all as of the day and year first above written.

GRANTOR:

# SIGNED, SEALED AND DELIVERED

in the presence of:

Witness

(seal)

(seal)

Witness

GRANTEE: GOSHEN WIND, INC

Per:

Michael O'Sullivan, Vice President "I have authority to bind the corporation."

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# EXHIBIT"A"

# TO INTERCONNECTION EASEMENT

Legal Description of Grantor's Property

# BEING THE WHOLE OF PIN NO.

# EXHIBIT"A-1"

# TO INTERCONNECTION EASEMENT

# Legal Description and Preliminary Plan of Interconnection Parcel

(See attached)

# BEING THE WHOLE OF PIN NO.

## EXHIBIT"B"

#### TO INTERCONNECTION EASEMENT

# **Consent of Spouse**

I, \_\_\_\_\_\_, being the spouse of \_\_\_\_\_\_, do hereby give my consent to the grant of license and the option made in the License and Option Agreement dated \_\_\_\_\_\_, 2013 in respect of the following property:

DATED this \_\_\_\_\_ day of \_\_\_\_\_\_, 2013.

WITNESS:

SPOUSE OF GRANTOR

Name:

Name:

Address:

Address:

#### EXHIBIT"C"

#### TO INTERCONNECTION EASEMENT

## DECLARATION REQUIRED UNDER SECTION 50 OF THE PLANNING ACT, R.S.O. 1990, as amended

# I, MICHAEL O'SULLIVAN, of the City of JUNO BEACH, in the State of FLORIDA,

#### DO SOLEMNLY DECLARE THAT

1. I am the <u>Vice-President</u> of Goshen Wind, Inc., the Grantee in the attached Interconnection Easement and as such have knowledge of the matters herein deposed to.

2. The use of or right in the land described in the said Interconnection Easement is being acquired by Goshen Wind, Inc., for a period of 21 or more years but not more than 50 years for the purpose of a renewable energy generation facility or renewable energy project in accordance with Section 50(3)(d.1) or 50(5)(c.1) of the *Planning Act* (Ontario) and I hereby make this declaration that it is being acquired for such purpose.

AND I make this solemn declaration conscientiously believing it to be true and knowing that it is of the same force and effect as if made under oath, and by virtue of *The Canada Evidence Act*.

GOSHEN WIND, INC.

Per: Michael O'Sullivan, Vice President "I have authority to bind the corporation."

DECLARED before me at the Town of Juno Beach, in the State of Florida this \_\_\_\_ day of \_\_\_\_\_, 2013, by Michael O'Sullivan, as Vice President of Goshen Wind, Inc. He is personally known to me or provided \_\_\_\_\_\_ as identification.

A Notary Public in and for the State of Florida

#### EXHIBIT"D"

#### TO INTERCONNECTION EASEMENT

#### **Compensation**

In consideration for granting an Interconnection Easement to Goshen Wind, Inc. ("Grantee"), ("Grantor") shall receive the following payment:

## (a) Annual Compensation for the Interconnection Parcel:

1. Number of acres of Easement: Up to 4 acres (final acreage to be determined by the Final Interconnection Parcel Plan as per Section 1 of this Agreement.) times **(final Annual Compensation amounts to be determined by the Final Interconnection Parcel Plan as per Section 1 of this Agreement.)** Commencing on the first anniversary of the Effective Date and on each anniversary thereafter during the Term, the annual payment due pursuant to this paragraph shall increase by two percent (2%) annually. The first annual payment will be mailed to Grantor within sixty (60) days of the Effective Date and on each anniversary date thereafter. All payments shall include harmonized sales tax ("HST"), if applicable.

# (b) Roadway Easement Compensation.

In the event Grantee installs Roadway Improvements on the Grantor's Property, other than the Interconnection Parcel, then Grantee shall pay to Grantor an annual payment of (CAD (CAD)) per acre for the area of the roadway, plus all harmonized sale tax applicable thereon.

Compensation payments to be distributed as follows:

100% to

Date:

Date:
Filed: 2013-04-03 Goshen Wind, Inc. Exhibit F Tab 1 Schedule 4 Pages: 34

# LICENSE AND OPTION AGREEMENT (SUBSTATION)

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### PREPARED BY AND RETURN TO

Carlos Megias Goshen Wind, Inc. 700 Universe Blvd. Juno Beach, FL 33408

## LICENSE AND OPTION AGREEMENT

THIS LICENSE AND OPTION AGREEMENT ("Agreement") is made as of the \_\_\_\_\_\_\_ day of \_\_\_\_\_\_\_, 2013 (hereinafter referred to as the "Effective Date") by and between \_\_\_\_\_\_\_, whose mailing address is \_\_\_\_\_\_\_ ("Grantor") and Goshen Wind, Inc., a company incorporated pursuant to the laws of the Province of New Brunswick and authorized to conduct business in the Province of Ontario, whose mailing address is 390 Bay Street, Suite 1720, Toronto, ON, M5H 2Y2, Canada ("Grantee"), who are sometimes individually referred to herein as a "Party" and collectively, as "Parties."

## RECITALS

A. Grantor is the registered and beneficial owner of an estate in fee simple, subject, however, to the exceptions, conditions, encumbrances, liens and interests contained in or noted upon the existing parcel register attached hereto as **Schedule "A**," of and in that certain parcel or tract of land situate, lying and being in the Province of Ontario as more particularly described in the attached Schedule "A" ("**Grantor's Property**"), and Grantee desires to construct and operate a substation on a portion of Grantor's Property to serve a wind energy project, all or a portion of which will be located on Grantor's Property and/or within the vicinity of Grantor's Property ("**Wind Energy Center**").

B. Grantor desires to grant and convey to Grantee an option for the right, liberty, privilege, and easement for the construction, operation and maintenance of a substation, laydown area, and appurtenant facilities ("Substation") on up to an approximately twenty (20) acre portion of Grantor's Property as more particularly described and depicted in the preliminary plan attached hereto as ScheduleA-1 ("Substation Parcel"), as well as, use a portion of the Substation Parcel and other areas on Grantor's Property outside of the Substation Parcel, as temporary laydown area(s) in order to serve the Wind Energy Center.

IN CONSIDERATION of Ten Dollars and No Cents (\$10.00) and other good and valuable consideration, as well as, the mutual benefits derived herefrom, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

# 1. Option to Enter into Easement, License & Compensation.

Subject to the terms and conditions set out herein, Grantor hereby grants Grantee the 1.1 exclusive option ("Option") to acquire easements and rights-of-way in respect of the Substation Parcel (hereinafter referred to as "Substation Easement") for the purposes of owning, constructing and/or operating the Substation on the Substation Parcel. The Option shall be exercisable by Grantee upon its sole discretion. If, at the time Grantee exercises the Option, the owner of Grantor's Property is Grantor as first named above, then Grantee is irrevocably authorized and directed by Grantor to finalize the Substation Easement by completing any missing information such as the Commencement Date and the description of the Substation Parcel and thereafter, Grantee shall execute the Substation Easement and provide two (2) completed and fully executed Substation Easement to Grantor. If, at the time Grantee exercises the Option, owner of Grantor's Property is not Grantor as first named above, then such Grantor agrees that it shall duly execute and deliver to Grantee on such date as is specified by Grantee to Grantor, the Substation Easement in substantially the same form as attached hereto as Schedule C upon the terms and conditions provided therein. In the event such Grantor fails to execute and deliver to Grantee the Substation Easement by the date specified by Grantee to Grantor, then such Grantor hereby irrevocably constitutes and appoints Grantee the true and lawful attorney of such Grantor to execute the Substation Easement and all other instruments, approvals and documents as provided for in the Substation Easement. For greater clarity, Grantor acknowledges that the Option is a continuing right which may be exercised by Grantee on more than one occasion, resulting in Grantee obtaining more than one Substation Easement in respect of Grantor's Property.

1.2 The Option shall be exercisable by Grantee at any time from the Effective Date up to and including, the date which is five (5) years after the Effective Date ("**Option Term**"). The Option Term may sometimes be referred to herein as the "**Term**".

1.3 In consideration of the Option granted by Grantor, Grantee shall make an annual payment to Grantor in the amount of **Constitution** of the Option comprising Grantor's Property plus all applicable harmonized sales taxes and any other applicable sales or value added taxes (the "**Option Payment**"), provided that the first and last annual Option Payment shall consist of a pro-rata portion of the Option Payment otherwise due and payable for both the first and last calendar year of the Term, as the case may be. The first annual pro-rata portion of the Option Payment, plus the full annual Option Payment for the next full calendar year in the Term, shall be made by Grantee to Grantor within sixty (60) days of the Effective Date. Thereafter, during the Term, the Option Payment shall be paid annually in advance on or before January 15th of each calendar year. The pro-rata portion of the first or last payment period, as the case may be, by 365 and multiplying that number by the annual Option Payment amount. Option Payment shall terminate at the earlier of the conclusion of the Option Term or the exercise of the Option by Grantee.

1.4 Grantor hereby grants to Grantee, during the Term, the right in the nature of an irrevocable license to enter upon Grantor's Property, at such times as are agreed to by the Parties, acting reasonably, to allow Grantee to undertake studies and tests on, above and below Grantor's Property. In the event any Substation facilities are located within cultivated Grantor's Property, and

in the event any of the above materially interfere with Grantor's farming practices, Grantee shall pay Grantor a one-time payment for crop damage resulting from the construction or installation of the hereinabove described Substation facilities. Grantor shall provide written notice to Grantee outlining the basis for Grantor's assertion of damage to Grantor's Property, the exact nature of damage, the source of the assertion that the alleged damage is the result of the exercise by Grantee of the rights, privileges and license granted by this Agreement and satisfactory evidence of the damage including documentation showing the extent of the damage and the financial impact of such damage. In the event that the Parties cannot agree at any time on the amount of damage payable to Grantor for such crop damage, the compensation paid by Grantee to Grantor for that use shall be the damages for the crops lost or destroyed in the area compacted as calculated below; in consideration of this payment, no additional damages shall be paid in future years for that episode of compaction. Damages will be calculated by the following formula: Unit Price x Unit Yield Per Acre x Acres Damaged = Damages. Prices for damaged or destroyed crops will be based on the average of the previous March 1st and September 1st using the prices for the crop provided by the local grain elevator. Yield will be the average of the previous three (3) years' yields according to Grantor's records for the smallest parcel of land that includes the damaged area. If Grantor does not have yield records available, the Parties will use commonly used yield information available for the area. The Parties shall try in good faith to agree to the extent of damage and acreage affected. If they cannot agree, they shall have the area measured and extent of damage assessed by an impartial party such as a crop insurance adjuster or extension agent. Any costs for such assessment shall be paid by Grantee. Payment shall be made within sixty (60) days after determining the extent of the damage.

# 2. Covenants, Representations & Warranties.

2.1 Grantor represents and warrants that, as of the Effective Date, Grantor is:

(a) at least eighteen (18) years of age and either not a spouse within the meaning of the *Family Law Act*, R.S.O. 1990, c.F.3, as amended; or

(b) at least eighteen (18) years of age and if a spouse within the meaning of the *Family* Law Act, R.S.O. 1990, c.F.3, as amended, then this Agreement has been executed by both spouses together comprising Grantor or consented to in writing by Grantor's spouse as is evidenced by the signature of the spouse on the Consent attached hereto as **Schedule B**; or

(c) if a corporation, then no building(s) located on Grantor's Property has been ordinarily occupied by any officer, director or shareholder of the corporation or by any of their spouses as a family residence or matrimonial home within the meaning of the *Family Law Act*, R.S.O. 1990, c.F-3, as amended.

2.2 Grantee hereby represents and warrants that it is a limited partnership, duly organized, validly existing and in good standing under the laws of New Brunswick, is authorized to conduct business in the Province of Ontario and has the right, power and privilege to execute and deliver this Agreement and to perform its obligations hereunder.

2.3 Grantor acknowledges that Grantor has had the full opportunity to obtain independent legal representation or advice in connection with this Agreement.

2.4 Grantor hereby agrees and covenants:

(a) that subsequent to the execution and delivery of this Agreement and without any additional consideration made or cost to Grantor, Grantor will execute and deliver or cause to be executed and delivered any further legal instruments, including, without limitation, any required consents, certificates or acknowledgements in favour of Grantee's lenders, and perform any acts which are or may become necessary to effectuate the purposes of this Agreement and to complete the transactions contemplated hereunder;

(b) that Grantor will appoint Grantee to act as Grantor's agent for the purpose of executing such consents or authorizations as may be necessary for Grantee to make any application for re-zoning or site plan approval pursuant to this Agreement, and agrees to cooperate in any such applications; and

that any information which Grantor has access to or which comes into Grantor's (c) possession relating to Grantee's activities, including any wind assessment data or the terms and conditions of this Agreement (including the Substation Easement) (collectively, the "Confidential Information"), shall be held in the strictest confidence by Grantor, and Grantor shall not disclose any Confidential Information to any third party except as may be required by law, or on the same confidential basis as provided herein and then only to Grantor's prospective purchasers or legal and financial advisors who have a bona fide and actual need to know same ("Authorized Agents"); (ii) Grantor or the Authorized Agents will not use any such Confidential Information, other than as may be required or permitted to perform any of its obligations under this Agreement; and (iii) Grantor or its Authorized Agents will not exploit (whether for commercial or other purposes) or otherwise use any such Confidential Information. Grantor acknowledges that a breach of any of the provisions contained herein would cause Grantee to suffer loss which could not be adequately compensated for by damages and Grantee may, in addition to any other remedy or relief, enforce the performance of the provisions of this Section by injunction or specific performance upon application to a court of competent jurisdiction without proof of actual damage. Upon the expiration or earlier termination of this Agreement, all Confidential Information will continue to be kept confidential by Grantor.

2.5 Grantee hereby covenants that should it elect to exercise the Option, it shall, at its sole cost and expense and prior to accessing Grantor's Property for any purpose related to the siting, assessment or construction of the Substation contemplated to be erected by Grantee herein, provide and maintain in full force and effect with financially responsible insurance carriers, insurance with commercially reasonable coverages, which shall remain in effect during the term of the Substation Easement or any extension thereof or as otherwise specified herein and which shall, if applicable, include (but not be limited to):

(a) automobile liability insurance covering owned, non-owned, hired, leased and rented automobiles and automotive equipment providing coverage for injury, death, or property damage;

(b) commercial general liability insurance covering bodily injury, death, personal injury and damage to property; and

(c) workers compensation as required by the Ontario *Workplace Safety and Insurance Act* (Ontario) or similar legislation covering all persons employed by Grantee or subcontractors for work performed under this Agreement,

and Grantee shall, prior to starting work on the Substation Parcel, supply Grantor with a certificate of insurance outlining the applicable coverages and indicating that the coverages will not be cancelled, non-renewed, nor materially changed by endorsement or through issuance of other policies of insurance which restricts or reduces coverage, without ninety (90) days' advance written notice to Grantor.

2.6 <u>Title Search</u>.

(a) If, after the Effective Date, Grantee conducts a title search and such search reveals that Grantor is not the legal and beneficial owner of Grantor's Property or does not have the legal right and authority to grant to Grantee, its employees, servants, agents, consultants, contractors and sub-contractors, the rights under this Agreement or has granted an easement, lease, financial encumbrance or other property right(s) related to Grantor's Property ("**Prior Encumbrance**") to any other person that would interfere with the rights granted to Grantee hereunder, Grantee may, in its sole discretion, terminate this Agreement effective immediately. If Grantee elects not to terminate this Agreement, mutual co-existence agreement or related agreements, that Grantee or its lender(s) may reasonably require. Without limiting the generality of the foregoing, Grantor covenants and agrees to obtain from any prior mortgage of Grantor's Property, either a postponement of such mortgage to this Agreement and any Substation Easement or a non-disturbance agreement in favour of Grantee.

(b) If the title search reveals a Prior Encumbrance, Grantee, in its sole and absolute discretion, may decide to consult with the holder of such Prior Encumbrance and Grantor shall cooperate with Grantee to resolve any issues that may arise out of the exercise of the Option vis-à-vis the Prior Encumbrance with the goal of determining whether the Prior Encumbrance and that the Substation Easement can co-exist over the Substation Parcel.

(c) Notwithstanding Section 2.6(b), Grantee may choose to terminate this Agreement at any time pursuant to Section 2.6(a).

2.7 Grantor hereby represents and warrants that it is the legal and beneficial owner in fee simple of Grantor's Property and has the legal right and authority to grant to Grantee, its servants, employees, agents, consultants, contractors and sub-contractors the rights under this Agreements on the terms and conditions set out herein and has not and will not grant an option, easement, lease or any other property rights related to Grantor's Property to any other person that would interfere with the rights granted to Grantee hereunder, save and except for any easements, petroleum or natural gas leases or any other property rights granted by Grantor prior to the Effective Date. 2.8 Grantor covenants and agrees to execute all applications, consents, permissions, agreements, postponements, partial discharges and any other documents which Grantee may require in connection with obtaining any and all approvals including, but not limited to renewable energy approvals, rezoning, governmental approvals, consents, permits or variances (collectively, "Approvals") and in connection with entering into by Grantee of any agreements with such governmental and public authorities as may be necessary to give due force and effect to and in furtherance of Grantee's applications, and Grantor shall produce all other documents and information which may be required in connection with such applications. All applications for Approvals shall be made by Grantee. Grantee agrees that the obligation of Grantor pursuant to this paragraph shall be restricted to execution of documents and production of documents and information and shall not impose upon Grantor any financial obligation whatsoever.

## 2.9 <u>Mutual Indemnities</u>.

(a) Grantee shall indemnify and hold harmless Grantor against all actions, suits, claims, demands and expenses made or suffered by any person or persons, in respect of loss, injury, damage or obligation to compensate, arising out of or in connection with or as a result of:

- (i) the negligence or wilful misconduct of Grantee; or
- (ii) any breach by Grantee of the terms and conditions of this Agreement,

provided that Grantee shall not be liable under this Section to the extent to which such loss, damage or injury is caused or contributed to by the negligence or default of Grantor, its servants or agents. For greater certainty, Grantee shall not be liable to Grantor for the actions of Grantor, its agents, employees, invitees or representatives who enter upon Grantor's Property.

(b) Grantor shall indemnify and hold harmless Grantee against all actions, suits, claims, demands and expenses made or suffered by any person or persons, in respect of loss, injury, damage or obligation to compensate, arising out of or in connection with, or as a result of the negligence or wilful misconduct of Grantor, as well as, in respect of any loss, injury or damage arising out of or in connection with, any breach by Grantor of the terms and conditions of this Agreement; provided that Grantor shall not be liable under this Section to the extent to which such loss, damage or injury is caused or contributed to, by the negligence or default of Grantee, its servants or agents. For greater certainty, Grantor shall not be liable to Grantee for the actions of: (i) Grantee, its agents, employees, or representatives who enter upon Grantor's Property, or (ii) any trespasser or unauthorized person who enters upon Grantor's Property.

(c) Notwithstanding the foregoing, the Parties hereto shall only be liable for reasonably anticipated and foreseeable damages.

#### 3. Termination.

3.1 Except as otherwise stipulated herein, this Agreement shall terminate at the earlier of:

(a) failure by Grantee to pay the requisite payments provided for hereunder, within thirty
(30) days after written demand by Grantor, unless otherwise agreed to by the Parties;

(b) receipt by Grantor of notice from Grantee of Grantee's desire to terminate the Agreement;

(c) termination by Grantee pursuant to Section 2.6; or

(d) the expiry of the Term of the Option as set out in Section 1.2.

3.2 The representations, warranties, covenants and agreements contained in Section 2 hereof shall survive the termination of this Agreement and remain in full force and effect.

3.3 In the event that this Agreement is terminated on the date stipulated in Section 3.1(b) (the "Early Termination Date"), Grantee shall be released from having to pay any further Option Payment under this Agreement.

4. <u>Notices</u>.

4.1 Any notice or other writing required or permitted to be given under this Agreement or for the purposes of this Agreement (referred to in this Section as a "**Notice**") to the other Party shall be sufficiently given if delivered personally, or if sent by prepaid registered mail or if transmitted by fax or other form of recorded communication tested prior to transmission to such other Party:

In the case of Notice to Grantee, to:

Goshen Wind, Inc. 390 Bay Street, Suite 1720 Toronto, ON, M5H 2Y2, Canada Attention: Business Management Telephone: (416) 364-9714

With a copy to:

Goshen Wind, Inc. 700 Universe Blvd. LAW/JB Juno Beach, FL 33408 Attention: General Counsel Telephone: (561) 691-2359 Facsimile: (561) 691-7103

In the case of Grantor, to:

Telephone:

or at such other address as the Party to whom such writing is to be given shall have last notified to the Party giving the same in the manner provided in this Section. Any notice personally delivered to the Party to whom it is addressed as provided in this Section shall be deemed to have been given and received on the day it is so delivered at such address, provided that if such day is not a Business Day then the notice shall be deemed to have been given and received on the Business Day next following such day. Any notice mailed to the address and in the manner provided for in this Section shall be deemed to have been given and received on the fifth Business Day next following the date of its mailing in Ontario. Any notice transmitted by fax shall be deemed to have been given and received on the first Business Day after its transmission.

4.2 For the purposes of this Section, the term "Business Day" means every day except Saturdays, Sundays and statutory holidays in the Province of Ontario.

### 5. General Provisions.

5.1 This Agreement shall be governed by the laws of the Province of Ontario and the federal laws of Canada applicable therein.

5.2 All matters in dispute between the Parties pursuant to this Agreement shall be resolved by good-faith negotiation. If the Parties are unable to resolve amicably any dispute arising out of or in connection with this Agreement, each shall have all remedies available at law or in equity. Each Party waives all right to trial by jury and specifically agrees that trial of suits or causes of action arising out of this Agreement shall be to the Court. Time is of the essence with regard to the terms and conditions of this Agreement.

### 5.3 Assignment.

(a) Subject to Subsection 5.3(c) below, this Agreement may be assignable by Grantor to a successor in title.

(b) Subject to Subsection 5.3(c) below, Grantee shall be able to assign this Agreement or any portion of its interest in Grantor's Property derived under the Agreement and the Substation Easement to be granted thereunder to one or more persons or entities without the prior consent of Grantor, including to its lender(s) as security for Grantee's obligations to such lender(s). Grantor shall execute and deliver any consent and acknowledgement reasonably requested by such lender.

(c) No assignment by either Grantee (except in the case of an assignment of this Agreement to its lender(s)) or Grantor shall be effective unless and until the assignee executes an assumption agreement ("Assumption Agreement") with respect to this Agreement agreeing to be bound by the terms hereof to the same extent as if it had been an original party hereto. For greater certainty, Grantor covenants and agrees that in the event Grantor transfers or conveys Grantor's Property or any portion thereof, Grantor will obtain from any such transferee or purchaser an Assumption Agreement in favour of Grantee.

5.4 This Agreement shall be binding upon and inure to the benefit of the Parties hereto, their respective heirs, executors, administrators and other legal representatives and, to the extent permitted hereunder, their respective successors and permitted assigns.

5.5 If any provision of this Agreement is determined to be invalid or unenforceable in whole or in part, such invalidity or unenforceability shall attach only to such provision (or part thereof) and everything else in this Agreement shall continue in full force and effect.

5.6 No change or modification of this Agreement shall be valid unless it is in writing and signed by each Party hereto.

5.7 This Agreement constitutes the entire agreement between the Parties hereto with respect to the subject matter of this Agreement. The Parties hereto acknowledge that there is no representation, warranty, and agreement or understanding between them, whether express or implied, which has induced any of the Parties hereto to enter into this Agreement except as expressly stated herein.

5.8 No failure on the part of any Party to exercise, and no delay by any Party in exercising, any right under this Agreement shall operate as a waiver of such right, unless the Party gives written notice to the other Party of its intention to waive such right.

5.9 This Agreement shall commence on the Effective Date.

5.10 The section headings herein have been inserted for ease of reference only and shall not affect the construction or the interpretation of this Agreement.

5.11 This Agreement may be executed in several counterparts, each of which so executed shall be deemed to be an original, and such counterparts together shall constitute but one and the same instrument.

5.12 Delivery of this Agreement by facsimile transmission shall constitute valid and effective delivery.

5.13 Any monies to be paid pursuant to this Agreement shall be in Canadian funds.

5.14 This Agreement shall be effective to create an interest in the Property for the Term.

5.15 Grantee shall be entitled, at its cost and expense, to register this Agreement or a notice in respect thereof and any required reference plans in the Land Registry Office for the area in which Grantor's Property is situated and Grantor agrees to execute, at no cost to Grantee, all necessary instruments, plans and documentation for that purpose.

5.16 This Agreement shall be effective to create an interest in Grantor's Property only if the subdivision control provisions of the *Planning Act* (Ontario) are complied with.

[Remainder of page intentionally left blank, signature page follows]

IN WITNESS WHEREOF the Parties hereto have executed this Agreement on the date first above written.

Grantee:

Goshen Wind, Inc. a New Brunswick company

Per: \_

Michael O'Sullivan, Vice President

Date: \_\_\_\_\_

Grantor:

Witness:

Name: \_\_\_\_\_\_Address:

Date: \_\_\_\_\_

Witness:

Name: \_\_\_\_\_\_Address:

• • • • • • •

Date: \_\_\_\_\_

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# SCHEDULE A

a . . . . . . .

# TO LICENSE AND OPTION AGREEMENT

# Copy of Parcel Register and Legal Description of Grantor's Property

# BEING THE WHOLE OF PIN NO. \_\_\_\_ (LT)

# SCHEDULE A-1

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# TO LICENSE AND OPTION AGREEMENT

# Preliminary Plan and Legal Description of Substation Parcel

(See attached)

# SCHEDULE B

### TO LICENSE AND OPTION AGREEMENT

# **Consent of Spouse**

I, \_\_\_\_\_, being the spouse of \_\_\_\_\_, hereby give my consent to the grant of license and the option made in the License and Option Agreement dated \_\_\_\_\_\_, 20\_\_\_\_ in respect of the following property:

DATED this \_\_\_\_\_ day of \_\_\_\_\_\_, 20\_\_\_\_

WITNESS:

SPOUSE OF GRANTOR

Name:

Name:

Address:

Address:

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# TO LICENSE AND OPTION AGREEMENT

# Form of Transfer of Substation Easement

(see attached)

## TRANSFER AND GRANT OF SUBSTATION EASEMENT

THIS TRANSFER AND GRANT OF SUBSTATION EASEMENT (IN GROSS) ("Agreement") made as of the \_\_\_\_\_\_ day of \_\_\_\_\_\_, 20 \_\_\_ between \_\_\_\_\_\_, whose mailing address is \_\_\_\_\_\_ ("Grantor") and Goshen Wind, Inc., a company incorporated pursuant to the laws of the Province of New Brunswick and authorized to conduct business in the Province of Ontario, whose mailing address is 390 Bay Street, Suite 1720, Toronto, ON, M5H 2Y2, Canada ("Grantee").

# RECITALS

A. Grantor is the registered and beneficial owner of an estate in fee simple of and in that certain parcel or tract of land situate, lying and being in the Province of Ontario as more particularly described in the attached **Schedule "A" ("Grantor's Property**"), and Grantee desires to construct and operate a substation, laydown area, and appurtenant facilities and temporary laydown area(s) on the portion(s) of Grantor's Property hereinafter described to serve a wind energy project, all or a portion of which will be located on Grantor's Property and/or within the vicinity of Grantor's Property ("Wind Energy Center").

B. Grantor desires to grant and transfer to Grantee an exclusive easement and right-ofway for the construction, operation and maintenance of a substation and temporary laydown area on up to an approximately twenty (20) acre portion of Grantor's Property, as more particularly described and depicted in the plan attached as **Schedule "A-1"** ("**Substation Parcel**") which Substation Parcel shall serve the Wind Energy Center. Grantee shall also have the right to temporarily use a portion of the Substation Parcel, as well as, use additional lands located on Grantor's Property, not comprising the Substation Parcel for the purposes of a temporary laydown area (the "Laydown Area").

IN CONSIDERATION of Ten Dollars and No Cents (\$10.00) and other good and valuable consideration as well as the mutual benefits derived herefrom, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

1. <u>Grant</u>. Grantor does hereby grant and transfer to Grantee, its licensees, sublessee, successors and assigns, the unobstructed and exclusive right, liberty and privilege of an easement and right-of-way upon, above, under, over and across the Substation Parcel for the purposes set out herein.

#### 2. <u>Term</u>.

2.1 Further to the Declaration attached hereto as Schedule "C," the fifty (50) year term of this Agreement shall commence on \_\_\_\_\_\_\_, 20\_\_\_\_\_ ("Commencement Date") and shall expire on the date that is the day prior to the fiftieth (50th)-anniversary of the service the Commencement Date ("Term"), unless Grantee shall have notified Grantor in writing prior to the expiration of the Term that it is electing to terminate the Term pursuant to Section 23 of this Agreement.

## 3. <u>Use</u>.

Grantee shall have the exclusive right and privilege to use the Substation Parcel for 3.1 the purposes of, inter alia, erection, installation, construction, operation, inspection, repair, replacement, patrol and maintenance of an electric substation, one or more electric transmission and distribution lines (either below or above ground) and equipment associated therewith, attachments and appurtenant equipment for an electric substation and any and all other uses consistent with the operation of an electric substation (all of the foregoing hereinafter collectively referred to as "Facilities"), together with the right and privilege from time to time to reconstruct, inspect, alter, improve, change the voltage, as well as the nature or physical characteristics of, replace, remove or relocate such Facilities or any part of them upon, across, over or under the Substation Parcel with all rights and privileges necessary or convenient for the full enjoyment or the use thereof for the herein described purposes and solely for the use, transmission and delivery of electrical energy produced by the Wind Energy Center; and shall include the right of access, ingress and egress by Grantee, its contractors, employees, agents and invitees to the Substation Parcel, as well as, to temporarily use the Laydown Area, for the purposes of storing vehicles, equipment and materials in connection with the operation, construction, maintenance, modification or removal of the Facilities as more fully depicted on Schedule A-1. The temporary use of the Laydown Area shall expire six (6) months after Commercial Operations Date. As used herein, the "Commercial Operation Date" shall mean the date when all the facilities comprising the Wind Power Project, shall have been constructed and installed and the entire Wind Power Project has achieved the status of a commercially operable wind-powered electrical generation and transmission facility.

3.2 The use of the Substation Parcel by Grantee shall be at the sole risk and expense of Grantee. Grantee agrees to warn its employees, agents, contractors and invitees of the fact that the electrical Facilities and appurtenances installed or to be installed within the Substation Parcel are of high voltage electricity and agrees to use, or cause to be used, reasonable safety and precautionary measures when working under or near the Facilities.

3.3 The rights and privileges hereby granted shall include, without limiting the generality of the foregoing, the right to erect, install, construct, operate, maintain, inspect, patrol, remove, replace, reconstruct, relocate, alter and repair on the Substation Parcel the Facilities as Grantee may deem necessary for the full enjoyment of any or all of the rights and privileges herein granted.

3.4 Grantee, its tenants, officers, agents, servants, employees, contractors and licensees, with or without vehicles, tools, equipment, apparatus and materials of whatsoever nature and kind, shall have the full, free and uninterrupted right to enter upon, use and occupy the Substation Parcel for all purposes connected with, or incidental to, the rights and privileges herein granted including, without limitation, the right to make and keep the Substation Parcel free from brush, trees, damaging growths, water in dangerous quantities and other obstructions. Where Grantee reasonably considers it necessary, by reason of the nature or condition of Grantor's Property or the circumstances-then. existing, Grantee shall have the right to go on or across any part of Grantor's Property for the purpose of gaining access to the Substation Parcel.

3.5 Grantee will erect, install and construct the Facilities within, upon or over the Substation Parcel in a proper and workmanlike manner so as to do as little injury as possible to Grantor's Property and will keep and maintain the same in good repair and will at the termination of this Agreement take down, dismantle and remove from the Substation Parcel the Facilities and will

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fill up all holes caused by such removal and restore the surface of the Substation Parcel as far as may be reasonable and possible.

### 4. Indemnification.

4.1 Grantee shall indemnify and hold harmless Grantor against all actions, suits, claims, demands and expenses made or suffered by any person or persons, in respect of loss, injury, damage or obligation to compensate, arising out of or in connection with or as a result of:

- (a) the negligence or wilful misconduct of Grantee;
- (b) any breach by Grantee of the terms and conditions of this Agreement; or
- (c) the property of Grantee or the operation of the property of Grantee,

provided that Grantee shall not be liable under this Section to the extent to which such loss, damage or injury is caused by the negligence or default of Grantor or Grantor's servants or agents. For greater certainty, Grantee shall not be liable to Grantor for the actions of (i) Grantor, its agents, employees, or representatives who enter upon Grantor's Property, or (ii) any trespasser or unauthorized person who enters upon Grantor's Property.

4.2 Grantor shall indemnify and hold harmless Grantee against all actions, suits, claims, demands and expenses made or suffered by any person or persons, in respect of loss, injury, damage or obligation to compensate, arising out of or in connection with, or as a result of the negligence or wilful misconduct of Grantor, as well as in respect of any loss, injury or damage arising out of or in connection with, any breach by Grantor of the terms and conditions of this Agreement; provided that Grantor shall not be liable under this Section to the extent to which such loss, damage or injury is caused by the negligence or default of Grantee, its servants or agents. For greater certainty, Grantor shall not be liable to Grantee for the actions of (i) Grantee, its agents, employees, or representatives who enter upon Grantor's Property, or (ii) any trespasser or unauthorized person who enters upon Grantor's Property.

4.3 All accrued and undischarged obligations under this Section shall survive the expiration or termination of this Agreement for the applicable statute of limitations period.

4.4 Notwithstanding the foregoing, the Parties hereto shall only be liable for reasonably anticipated and foreseeable damages.

5. <u>Environmental Representations</u>. Grantor represents and warrants that, to the best of Grantor's knowledge, Grantor's Property is not and has not been in violation of any Environmental Laws, and Grantor has not received any notice or other communication from any governmental authorities alleging that Grantor's Property is in violation of any Environmental Laws. "Environmental Laws" shall mean and refer to any statute, law, decree, ordinance or regulation which relates to or deals with human health or the environment, including, without limitation, all regulations promulgated by a regulatory body pursuant to any statute, law, ordinance or regulation. "Hazardous Materials" shall mean any asbestos containing materials, petroleum, explosives, toxic materials, or substances regulated as hazardous wastes, hazardous materials, hazardous substances, or foxic substances under any federal, provincial, or local law or regulation. Grantor represents and warrants that, except as disclosed to Grantee in writing, to the best of Grantor's knowledge, no underground storage tanks and no Hazardous Materials are or were located on Grantor's Property during or prior to Grantor's ownership of Grantor's Property. Grantor shall not violate in a material way any Environmental Law relating to Grantor's Property. All accrued and undischarged obligations under this clause shall survive the expiration or termination of this Agreement.

6. <u>Roads</u>. Grantor agrees that Grantee may construct or improve roads from time to time for the purposes of access, ingress and egress to the Substation Parcel.

7. Taxes. Grantee shall pay any increase in the real property taxes on the Substation Parcel that is directly attributable to the installation of Facilities or to a reclassification of the Substation Parcel because of the rights and privileges created under this Agreement. If the Facilities are subject to real property taxes, Grantee shall request that the Facilities be separately assessed and . that taxing authorities bill Grantee directly for taxes attributable to the Facilities. Grantee shall not be liable for taxes attributable to any other facilities or other installations of any kind installed by Grantor or others on the Substation Parcel or for any increase due to any other cause. Grantee agrees to reimburse Grantor for any taxes paid by Grantor that are properly payable by Grantee under the terms of this Agreement. To receive reimbursement, Grantor must submit the real property tax bill payable by Grantor to Grantee for reimbursement within a reasonable time after Grantor receives the bill from a taxing authority. The parties agree to fully cooperate to obtain any available tax refunds or tax abatements.

8. <u>Warranties and Representations</u>. Grantor represents and warrants to Grantee that he/she has sufficient right, title and interest in and to the Substation Parcel to convey the rights and interests transferred and granted herein. Grantor represents and warrants that, as of the Effective Date, Grantor is:

(a) at least eighteen (18) years of age and either not a spouse within the meaning of the *Family Law Act*, R.S.O. 1990, c.F.3, as amended; or

(b) at least eighteen (18) years of age and if a spouse within the meaning of the *Family Law Act*, R.S.O. 1990, c.F.3, as amended, then this Agreement has been executed by both spouses together comprising Grantor or consented to in writing by Grantor's spouse as is evidenced by the signature of the spouse on the Consent attached hereto as **Schedule "B"**; or

(c) if a corporation, then no building(s) located on Grantor's Property has been ordinarily occupied by any officer, director or shareholder of the corporation or by any of their spouses as a family residence or matrimonial home within the meaning of the *Family Law Act*, R.S.O. 1990, c.F-3, as amended.

Grantee hereby represents and warrants that it is a limited partnership, duly organized, validly existing and in good standing under the laws of New Brunswick, is authorized to conduct business in the Province of Ontario and has the right, power and privilege to execute and deliver this Agreement and to perform its obligations hereunder.

## 9. Assignment; Mortgage Rights.

9.1 Grantee, upon notice to Grantor, but without Grantor's consent or approval, may mortgage, charge, collaterally assign, or otherwise encumber and grant security interests in all or any

part of its interest in the Agreement and the Substation Parcel. These various security interests in all or a part of this Agreement and the Substation Parcel are collectively referred to as "Mortgages" and the holders of the Mortgages, their designees and assigns are referred to as "Mortgagees." Grantee's notice to Grantor shall include the name and address of each Mortgagee and/or Assignee (as hereinafter defined). Grantee shall also have the right without Grantor's consent to sell, convey, sublease, or assign all or any of Grantee's interests in this Agreement and in the Substation Parcel, or to grant sub-easements co-easements, separate easements, licenses or similar rights, however denominated (collectively, "Assignment"), to one or more persons or entities (collectively, "Assignees"). Assignees and Mortgagees shall use the Substation Parcel only for the uses permitted under the Agreement. Assignees and Mortgagees shall have all rights and remedies allowed them under then existing laws except as limited by their individual agreements with Grantee, provided that under no circumstances shall any Mortgagee or Assignee have any greater rights of ownership or use of the Substation Parcel than the rights granted to Grantee in the Agreement.

9.2 Grantor agrees to consent in writing to financing documents as may reasonably be required by Mortgagees. As a precondition to exercising any rights or remedies related to any alleged default by Grantee under this Agreement, Grantor shall give written notice of the default to each Mortgagee and Assignee at the same time it delivers notice of default to Grantee, specifying in detail the alleged event of default and the required remedy. Each Mortgagee and Assignee shall have the same amount of time to cure the default as to Grantee's entire interest or its partial interest in the Substation Parcel as is given to Grantee and the same right to cure any default as Grantee or to remove any property of Grantee, Mortgagees or Assignees located on the Substation Parcel. The cure period for each Mortgagee and Assignee shall begin to run at the end of the cure period given to Grantee in the Agreement, but in no case shall the cure period for any Mortgagee or Assignee be less than ninety (90) days after receipt of the default notice. Failure by Grantor to give a Mortgagee or Assignee to cure any default and to remove any property of Grantee, the Mortgagee or Assignee to cure any default and to remove any property of Grantee, the Mortgagee or Assignee to cure any default and to remove any property of Grantee, the Mortgagee or Assignee to cure any default and to remove any property of Grantee, the Mortgagee or Assignee to cure any default and to remove any property of Grantee, the Mortgagee or Assignee located on the Substation Parcel.

9.3 Any Mortgagee or Assignee that does not directly hold an interest in the Substation Parcel, or whose interest is held solely for security purposes, shall have no obligation or liability under this Agreement prior to the time the Mortgagee or Assignee directly holds an interest in this Agreement, or succeeds to absolute title to Grantee's interest. A Mortgagee or Assignee shall be liable to perform obligations under this Agreement only for and during the period it directly holds such interest or absolute title. Any Assignment provided for under this Agreement shall release Grantee or other assignor from obligations accruing after the date that liability is assumed by the Assignee.

9.4 To prevent termination of this Agreement, or any partial interest in this Agreement, Grantee, any Mortgagee or Assignee shall have the right, but not the obligation, at any time to perform any act necessary to cure any default and to prevent the termination of this Agreement or any are interest in the Agreement and Grantor agrees to accept the rectification of any default by any Mortgagee or Assignee as if it was rectified by Grantee.

9.5 In the event of an uncured default by the holder of Grantee's entire interest in this Agreement, or in the event of a termination of this Agreement by agreement, by operation of law or otherwise, each Mortgagee or Assignee of an interest in the Agreement that is not in default of its obligations, shall have the right to have Grantor either recognize the Mortgagee's or Assignee's

interest or grant a new agreement substantially identical to this Agreement. Under the new easement, -----the Mortgagee or Assignee shall be entitled to, and Grantor shall not disturb, Mortgagee's or Assignee's continued use and enjoyment for the remainder of the Term and any renewal period, or such shorter term as an Assignee may otherwise be entitled pursuant to its Assignment.

9.6 If any default by Grantee under this Agreement cannot be cured without obtaining possession of all or part of the Substation Parcel, then any such default shall be deemed remedied if a Mortgagee or Assignee: (a) within ninety (90) days after receiving notice from Grantor acquires possession of all or part of the Substation Parcel, or begins appropriate judicial or nonjudicial proceedings to obtain the same; (b) diligently prosecutes any such proceedings to completion; and (c) after gaining possession of all or part of the Substation Parcel cures defects that are capable of being remedied and performs all other obligations as and when the same are due in accordance with the terms of this Agreement. If a Mortgagee or Assignee is prohibited by any court or by operation of any bankruptcy or insolvency laws from commencing or prosecuting the proceedings described above, the ninety (90) day period specified above for commencing proceedings shall be extended for the period of such prohibition.

9.7 Grantor shall execute estoppel certificates (certifying as to truthful matters, including without limitation that no default then exists under this Agreement, if such be the case), consents to assignment and non-disturbance agreements as Grantee or any Mortgagee or Assignee may reasonably request from time to time, which may incorporate the provisions contained in this Section 8. Grantor and Grantee shall cooperate in amending this Agreement from time to time to include any provision that may be reasonably requested by Grantee or any Mortgagee or Assignee to implement the provisions contained in this Agreement or to preserve a Mortgagee's security interest in the Substation Parcel.

9.8 Any Mortgagee, upon delivery to Grantor of notice of its name and address, for so long as its Mortgage is in existence shall be entitled to the following protections which shall be in addition to those granted elsewhere in this Agreement:

(a) A Mortgagee shall have the absolute right: (a) to assign its Mortgage; (b) to amend, renew, extend, restate or supplement its Mortgage; (c) to enforce its lien and acquire title to all or any portion of the Substation Parcel by any lawful means; (d) to take possession of and operate all or any portion of the Substation Parcel and to perform all obligations to be performed by Grantee under this Agreement, or to cause a receiver to be appointed to do so; and (e) to acquire all or any portion of the Substation Parcel by foreclosure or a quit claim in lieu of foreclosure and thereafter without Grantor's consent to assign or transfer all or any portion of the Substation Parcel to a third party. A Mortgagee which assigns or transfers Substation Parcel to a third party shall notify Grantor of the name and address of the Assignee or Transferee.

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(b) During any period of possession of the Substation Parcel by a Mortgagee (or a receiver requested by a Mortgagee) and/or while any foreclosure proceedings instituted by a Mortgagee are pending, the Mortgagee shall pay or cause to be paid the fees and all other monetary charges payable by Grantee under this Agreement which have accrued and are unpaid at the commencement of the period and those which accrue thereafter during the period. Following acquisition of all or a portion of the Substation Parcel by the Mortgagee as a result of either foreclosure or a quit claim in lieu of foreclosure, or by a purchaser under a private or judicial power of sale, this Agreement shall continue in full force and effect and the Mortgagee or party acquiring

title to the Substation-Parcel shall, as promptly as reasonably possible, commence the cure of alldefaults under this Agreement and thereafter diligently process such cure to completion, whereupon Grantor's right to terminate this Agreement based upon such defaults shall be deemed waived; provided, however, that the Mortgagee or party acquiring title to Grantee's interests shall not be required to cure those defaults which are not reasonably susceptible of being cured or performed by such party ("**non-curable defaults**"). Non-curable defaults shall be deemed waived by Grantor upon completion of foreclosure proceedings or a quit claim in lieu of foreclosure or acquisition of Grantee's interest in this Agreement by such party.

(c) Any Mortgagee or other party who acquires Grantee's interest in the Substation Parcel pursuant to foreclosure or a quit claim in lieu of foreclosure shall not be liable to perform the obligations imposed on Grantee by this Agreement incurred or accruing after the party no longer has ownership or possession of the Substation Parcel.

(d) If this Agreement terminates because of Grantee's default, as a result of a foreclosure, or if this Agreement is rejected, disaffirmed, resiliated, repudiated or disclaimed pursuant to bankruptcy law or other law affecting creditor's rights and, within ninety (90) days after such event, Grantee or any Mortgagee or Assignee shall have arranged to the reasonable satisfaction of Grantor for the payment of all fees or other charges due and payable by Grantee as of the date of such event, then Grantor shall execute and deliver to Grantee or such Mortgagee or Assignee or to a designee of one of these parties, as the case may be, a new agreement to the Substation Parcel which (i) shall be for a term equal to the remainder of the Term, including any renewal period before giving effect to such rejection, resiliation, disclaimer, repudiation or termination; (ii) shall contain the same covenants, agreements, terms, provisions and limitations as this Agreement (except for any requirements that have been fulfilled by Grantee or any Mortgagee or Assignee prior to rejection, resiliation, disclaimer, repudiation of this Agreement); and, (iii) shall include that portion of the Substation Parcel in which Grantee or such other Mortgagee or Assignee had an interest on the date of rejection, resiliation, disclaimer, repudiation or termination.

(e) After the termination, resiliation, repudiation, rejection, disclaimer or disaffirmation of this Agreement and during the period thereafter during which any Mortgagee shall be entitled to enter into a new agreement for the Substation Parcel, Grantor will not terminate the rights of any Assignee unless in default under its Assignment.

(f) If more than one Mortgagee makes a written request for a new agreement pursuant to this provision, the new agreement shall be delivered to the Mortgagee requesting such new agreement whose Mortgage is prior in lien, and the written request of any other Mortgagee whose lien is subordinate shall be void and of no further force or effect.

(g) The provisions of this Section shall survive the termination, rejection, disclaimer, resiliation, repudiation or disaffirmation of this Agreement and shall continue in full force and effect thereafter to the same extent as if this Section were a separate and independent contract made by Grantor, Grantee and each Mortgagee, and, from the effective date of such termination, rejection, disclaimer, resiliation, repudiation or disaffirmation of this Agreement to the date of execution and delivery of such new agreement, such Mortgagee may use and enjoy the Substation Parcel without hindrance by Grantor or any person claiming by, through or under Grantor; provided that all of the some emotions for the new agreement as set forth above are complied with.

(h) Notwithstanding any provision of this Agreement to the contrary, the parties agree that so long as there exists an unpaid Mortgagee, this Agreement shall not be modified or amended, and Grantor shall not accept a surrender, cancellation or release and abandonment of all or any part of this Agreement or the Substation Parcel from Grantee, prior to expiration of the Term without the prior written consent of the Mortgagee. This provision is for the express benefit of and shall be enforceable by each Mortgagee as if it were a party named in this Agreement.

(i) There shall be no merger of this Agreement with the fee estate in the Substation Parcel by reason of the fact that this Agreement, directly or indirectly, by or for the account of any person or persons who shall own any interest in the fee estate. No merger shall occur unless and until all persons at the time having an interest in the fee estate in the Substation Parcel and all persons (including each Mortgagee) having an interest in this Agreement or in the estate of Grantor and Grantee shall sign and register a written instrument effecting such merger.

(j) On the commencement of the Term, the Substation Parcel shall be free and clear of all monetary liens other than those expressly approved by Grantee. Thereafter, any assignment of this Agreement, mortgage, charge, deed of trust or other monetary lien placed on the Substation Parcel by Grantor, or permitted by Grantor to be placed or to remain on the Substation Parcel, shall be subject to this Agreement, to any Assignment or Mortgage then in existence on the Substation Parcel, to Grantee's right to encumber the Substation Parcel, and to any and all documents executed or to be executed by Grantor in connection with Grantee's development of all or any part of the Substation Parcel. Grantor agrees to cause any monetary liens placed on the Substation Parcel by Grantor in the future to incorporate the conditions of this Section.

(k) At Grantee's request, Grantor shall amend this Agreement to include any provision which may reasonably be requested by a proposed Mortgagee; provided, however, that such amendment shall not impair any of Grantor's rights under this Agreement or increase the burdens or obligations of Grantor under this Agreement. Upon the request of any Mortgagee, Grantor shall execute any additional instruments reasonably required to evidence such Mortgagee's rights under this Agreement.

10. <u>Governing Law</u>. This Agreement shall be governed by and construed in accordance with the laws of the Province of Ontario, Canada, without reference to the conflict of laws principles thereof. The parties hereto agree that any rule of construction to the effect that ambiguities are to be resolved in favor of any particular party shall not be employed in the interpretation hereof, and is hereby waived. Any references herein to specific legislation shall be deemed a reference to amending or successor legislation thereto once same is enacted and in force.

11. <u>Registration</u>. Grantee shall be entitled, at its cost and expense, to register this Agreement or a notice in respect thereof and any required reference plans in the applicable Land <u>Registry Office having jurisdiction over the Substation Parcel, and Grantor agrees to execute, at no</u> cost to Grantee, all necessary instruments, plans and documentation for that purpose.

12. <u>Income Tax Act</u>. Prior to the Commencement Date, Grantor shall deliver to Grantee a certificate issued under the provisions of Section 116 of the Income Tax Act (Canada) or satisfactory evidence by way of statutory declaration that Grantor is not then a non-resident of Canada-within the meaning of the *Income Tax Act* (Canada). In the event that Grantor's residency

status changes at any time during the Term, Grantor shall provide prompt written notice of same to — Grantee.

13. <u>Default</u>. Notwithstanding anything herein contained to the contrary, Grantee shall not be in default in the performance of any of its covenants or obligations under this Agreement, including the payment of compensation or rental, unless and until Grantor has notified Grantee of such default in writing and Grantee has failed to commence action to remedy the same within forty-five (45) days of receipt of such notice and thereafter fails to diligently continue to complete such remedial action.

14. Notice. All notices, communications, payments and deliveries (collectively called the "Notices") to be given hereunder shall be given in writing. All such Notices and all payments to be tendered hereunder may be given personally or by registered letter addressed to the party to whom the Notice is to be given. When delivered personally, such Notice shall be deemed received on the day of delivery, and when mailed, such Notice shall be deemed to be given to, and received by, the addressee four (4) days after the mailing thereof, postage prepaid, provided however that if a Notice is mailed and a disruption of postal services occurs before the date of deemed receipt of such Notice, such Notice shall not be deemed to be received until the expiration of four (4) days following the resumption of postal service.

15. <u>Addresses</u>. Unless changed by written notice the addresses of the parties hereto shall

In the case of Notice to Grantee, to:

Goshen Wind, Inc. 390 Bay Street, Suite 1720 Toronto, ON, M5H 2Y2, Canada Attention: Business Management Telephone: (416) 364-9714

With a copy to:

be:

Goshen Wind, Inc. 700 Universe Blvd. LAW/JB Juno Beach, FL 33408 Attention: Business Management Telephone: (561) 691-7171 Facsimile: (561) 691-7307

In the case of Grantor, to:

Telephone:

determines that it is impossible to construe any provision of this Agreement and as a consequence

-holds that provision to be invalid, such holding shall not affect the validity of the other provisions of this Agreement, which shall remain in full force and effect.

17. <u>Enurement.</u> This Agreement and everything herein contained shall enure to the benefit of and be binding upon Grantor, his/her heirs, executors, administrators, successors and assigns and upon Grantee, its successors and assigns.

18. <u>Compensation</u>. Grantee shall pay Grantor the amounts set forth in Schedule "D" as the consideration for the Agreement.

19. Discharge of Encumbrances. Grantee may at its option pay or discharge all or part of any balance owing under any agreement for sale or mortgage, or of any withholding or other tax, charge, lien or encumbrance of any kind or nature whatsoever which may now or hereafter exist on or against or in any way affect the Substation Parcel, in which event Grantee shall be subrogated to the rights of the holder or holders thereof, and may in addition thereto, at its option, reimburse itself by applying on account of repayment of the amount so paid by it the rentals or other sums accrued or accruing to Grantor under the terms of this Agreement. Any sums so applied shall, for all purposes of this Agreement, be deemed to have been paid to and received by Grantor in payment of such rentals or other sums accrued or accruing to Grantor under the terms of this Agreement. Grantor also agrees to obtain from any prior mortgagee of Grantor's Property, either a postponement of such mortgage or charge to this Agreement or a non-disturbance agreement in favour of Grantee.

20. Approvals. Grantor covenants and agrees to execute all applications, consents, permissions, agreements, postponements, site plan control agreements, partial discharges and any other documents which Grantee may require in connection with obtaining any renewable energy approvals, rezoning, governmental approvals, consents, permits or variances (collectively, "Approvals") and in connection with entering into by Grantee of any agreements with such governmental and public authorities as may be necessary to give due force and effect to and in furtherance of Grantee's applications, and Grantor shall produce all other documents and information which may be required in connection with such applications. All applications for Approvals shall be made by Grantee, at its sole cost and expense, and any costs to Grantor associated with such Approvals shall be borne by Grantee. Grantee agrees that the obligation of Grantor pursuant to this section shall be restricted to execution of documents and production of documents and information and shall not impose upon Grantor any financial obligation whatsoever.

21. <u>Fencing and Access</u>. Grantee shall have the full, free and exclusive right to fence the Substation Parcel or so much thereof as it, in its sole and absolute discretion, may deem necessary in the exercise of any of its rights and privileges herein granted. Grantor, and all persons claiming by, through or under Grantor, may be denied access to, and use of, the Substation Parcel or so much thereof as Grantee, in its sole and absolute discretion, may deem necessary from time to time for the safe and efficient use and operation of the Facilities.

22. Equity. Grantor covenants with Grantee that upon Grantee, its successors and assigns, performing and observing the covenants and conditions on its part to be performed and observed, Grantee, its successors and assigns, shall peaceably hold and enjoy the rights, liberties, privileges and easement hereby granted during the period as aforesaid. Notwithstanding any rule of law or equity; all property, improvements and equipment placed or operated on the Substation Parcel

by or on behalf of Grantee shall, at all times, remain the personal property of Grantee even though attached to Grantor's Property.

23. <u>Termination</u>. In the event Grantee no longer requires the right to maintain Facilities on the Substation Parcel, it may remove the Facilities. Grantee may also, if it so chooses, elect to terminate all rights and obligations hereunder. Upon Grantee so electing to terminate the rights hereunder, Grantee shall remove all Facilities from the Substation Parcel and shall restore the Substation Parcel to the same condition, to the extent such restoration is practical, as the Substation Parcel was prior to entry thereon and use thereof by Grantee, and Grantee shall remove and discharge any instrument or encumbrance registered against title to the Substation Parcel and related to its interest in the Substation Parcel.

24. <u>Sale</u>. Grantor shall notify Grantee promptly and in writing of any change in ownership of Grantor's Property and Grantee shall be entitled to continue to make payments to the existing Grantor until satisfied of the status of the new Grantor. Grantor will obtain an assumption agreement in favour of Grantee from any transferee or purchaser of Grantor's interest in Grantor's Property, pursuant to which such transferee or purchaser agrees to be bound by the terms of this Agreement.

25. <u>Covenant</u>. This Agreement is and shall be the same force and effect, to all intents and purposes, as a covenant running with the Substation Parcel and these presents, including all of the covenants and conditions herein contained, shall extend, be binding upon and inure to the benefit of the parties hereto, their executors, administrators, successors and assigns, as the case may be. Grantee agrees that this Agreement and the rights, privileges and easements granted pursuant thereto is an easement in favour of a generator, transmitter or distributor for the purpose of generation, transmission or distribution in accordance with Section 42.1 of the *Electricity Act*, 1998 (Ontario). Grantee shall have the right from time to time, in its sole discretion to grant franchises, licenses or assignments of its rights acquired hereunder, in whole or in part, to third parties, without further consideration becoming payable to Grantor herein.

26. <u>Miscellaneous</u>. The titles or headings inserted herein are for convenience of reference only and shall not affect the interpretation or construction of this Agreement. In the event of any conflict between a metric and imperial expression of measurement in this Agreement, the metric expression of measurement shall govern. IT IS UNDERSTOOD AND AGREED by and between the parties hereto that this Agreement and all of the covenants and conditions herein contained, shall extend to, be binding upon and enure to the benefit of, respectively, the executors, administrators, successors and assigns of Grantor, the owner or owners for the time being of Grantor's Property, and the successors and assigns of Grantee, and wherever the singular or masculine is used throughout this Agreement, the same shall be construed as meaning plural, or feminine, or a body corporate, where the context or the parties hereto so admit or require.

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27. <u>Effective Date</u>. "Effective Date" means the date when all conditions and documents required by Grantee have been signed and delivered by Grantor. Grantee shall send a written notice to Grantor of the Effective Date once it is determined.

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28. <u>No Affect on Statutory Rights</u>. Nothing in this Agreement shall adversely affect

Ontario Energy Board pursuant to the Ontario Energy Board Act; 1998 (and any other successor legislation).

29. <u>Planning Act</u>. This Agreement and the provisions hereof, which create or are intended to create an interest in Grantor's Property and the Substation Parcel, shall be effective to create such an interest only if the subdivision control provisions of the *Planning Act*, as amended, are complied with. Notwithstanding the foregoing, Grantee hereby declares that the interests in Grantor's Property and the Substation Parcel being acquired by Grantee pursuant to this Agreement are for the purposes of a renewable energy generation facility or renewable energy generation project in accordance with Section 50(3)(d.1) or 50(5)(c.1) of the *Planning Act*.

[Remainder of page intentionally left blank, signature page follows]

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SIGNED, SEALED AND DELIVERED

in the presence of:

Witness

Witness

Goshen Wind, Inc. a New Brunswick company

Per:

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Michael O'Sullivan, Vice President "I have authority to bind the corporation."

# SCHEDULE "A" TO SUBSTATION EASEMENT

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Legal Description of Grantor's Property

BEING THE WHOLE OF PIN NO. \_\_\_\_\_ (LT)

# SCHEDULE "A-1"

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# TO SUBSTATION EASEMENT

# Legal Description of Substation Parcel and Laydown Area

(See attached)

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### SCHEDULE "B"

# TO SUBSTATION EASEMENT

# **Consent of Spouse**

I, \_\_\_\_\_, being the spouse of \_\_\_\_\_, do hereby give my consent to the transfer and grant of easement and right-of-way made in the Substation Easement dated \_\_\_\_\_, 20 \_\_\_\_ in respect of the following property:

DATED this \_\_\_\_\_ day of \_\_\_\_\_\_, 20\_\_\_\_.

WITNESS:

SPOUSE OF GRANTOR

Name:

Name:

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• • •

Address:

Address:

#### SCHEDULE "C"

#### TO SUBSTATION EASEMENT

## DECLARATION REQUIRED UNDER SECTION 50 OF THE PLANNING ACT, R.S.O. 1990, as amended

I, MICHAEL O'SULLIVAN, of the City of JUNO BEACH, in the State of FLORIDA,

#### DO SOLEMNLY DECLARE THAT

1. I am the Vice-President of Goshen Wind, Inc., a company incorporated pursuant to the laws of the Province of New Brunswick and authorized to conduct business in the Province of Ontario, the Grantee in the attached Substation Easement and as such have knowledge of the matters herein deposed to.

2. The use of or right in the land described in the said Substation Easement is being acquired by Goshen Wind, Inc., a company incorporated pursuant to the laws of the Province of New Brunswick and authorized to conduct business in the Province of Ontario, for a period of 21 or more years but not more than 50 years for the purpose of a renewable energy generation facility or renewable energy project in accordance with Section 50(3)(d.1) or 50(5)(c.1) of the *Planning Act* (Ontario) and I hereby make this declaration that it is being acquired for such purpose.

AND I make this solemn declaration conscientiously believing it to be true and knowing that it is of the same force and effect as if made under oath, and by virtue of *The Canada Evidence Act*.

### Goshen Wind, Inc.

a New Brunswick company

Per: Michael O'Sullivan, Vice President "I have authority to bind the corporation."

DECLARED before me at the Town of Juno Beach, in the State of Florida this \_\_\_\_\_ day of \_\_\_\_\_\_, 20\_\_\_\_, by Michael O'Sullivan, as Vice President of Goshen Wind, Inc., a company incorporated pursuant to the laws of the Province of New Brunswick and authorized to conduct business in the Province of Ontario. He is personally known to me or provided as identification.

الأستمع العاهرة الراجع ومعتد بالتعويدين الالتون

Notary Public in and for the State of Florida

(Seal)

### SCHEDULE "D"

#### TO SUBSTATION EASEMENT

#### Compensation

In consideration for granting a Substation Easement to Goshen Wind, Inc., a company incorporated pursuant to the laws of the Province of New Brunswick and authorized to conduct business in the Province of Ontario, ("Grantee"), \_\_\_\_\_, ("Grantor") shall receive the following payment:

### Annual Compensation for the Substation Parcel:

Number of acres of Easement:

up to 20.00 acres

= \$

Annual Amount:

per acre

Total Annual Compensation for Substation Parcel:

The first Annual Compensation for the Substation Parcel Area shall be made on the **Commencement Date**, and subsequent payments of the Annual Compensation for the Substation Parcel shall be payable on each anniversary of the Commencement Date during the Term which shall be subject to a two (2) percent increase annually. Grantee may, in its sole discretion, release portions of the Substation Parcel from this Agreement, in which case the Compensation will be pro-rata reduced accordingly.

Compensation payments to be distributed as follows:

100% to \_\_\_\_\_

Filed: 2013-04-03 Goshen Wind, Inc. Exhibit F Tab 1 Schedule 5 Pages: 16

# CONSTRUCTION, MAINTENANCE AND ACCESS AGREEMENT (TRANSMISSION GUY WIRE)

## CONSTRUCTION, MAINTENANCE and ACCESS EASEMENT AGREEMENT

THIS CONSTRUCTION MAINTENANCE AND ACCESS EASEMENT Agreement (IN GROSS) ("Agreement"), is executed and made effective this \_\_\_\_\_\_ day of \_\_\_\_\_\_, 2013, ("Effective Date") by and between \_\_\_\_\_\_, ("Grantor") and Goshen Wind, Inc., a company incorporated pursuant to the laws of the Province of New Brunswick and authorized to conduct business in the Province of Ontario, whose mailing address is 390 Bay Street, Suite 1720, Toronto, ON, M5H 2Y2, Canada ("Grantee").

#### PREMISES

A. Grantor is the registered owner of an estate in fee simple composed of certain parcels or tracts of land and premises more particularly described on Exhibit A attached hereto and made a part hereof ("**Property**"); and

B. Grantee intends to construct (i) Transmission Facilities, which shall mean all improvements whose purpose is to deliver electrical power to an electrical power grid or other system, including without limitation transformers and overhead and underground electrical transmission and distribution lines and interconnection facilities and (ii) Telecommunication Facilities, which shall mean all improvements whose purpose is to provide telecommunication services, including telephone, closed-circuit television, microwave, internet, computer data and other telecommunication services related to the operation of the Transmission Facilities, the said Transmission Facilities and Telecommunication Facilities to be constructed over certain lands adjacent to the Property ("Transmission and Telecommunication Easement"); and

C. Grantor agrees to grant to Grantee certain easements over a portion of the Property as depicted on the attached Exhibit B on the terms and conditions contained in this Agreement;

IN CONSIDERATION of the foregoing and other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, the parties hereto agree as follows:

1. <u>Grants</u>.

(a) <u>Construction Easement and Guy Easement</u>. Grantor hereby grants to Grantee, for the benefit of Grantee and its successors and assigns, a temporary, exclusive easement ("Construction Easement") on, over, along and under that portion of the Property as depicted on the attached Exhibit B ("Construction Easement Area") for the purposes of: (1) the construction and installation of guy stub(s), anchors and necessary guy wires (collectively "Guy Facilities") to support the Transmission Facilities and Telecommunication Facilities to be constructed on the Transmission and Telecommunication Easement adjacent to the Construction Easement Area; (2) the storage of materials and equipment during construction of the Guy Facilities; and during construction of the Transmission Facilities and Telecommunication Facilities; and (3) the construction and installation of the Transmission Facilities and Telecommunication Facilities to be constructed on the Transmission Facilities and Telecommunication Facilities to be constructed on the Transmission Facilities and Telecommunication Facilities to be constructed on the Transmission Facilities and Telecommunication Facilities to be constructed on the Transmission Facilities and Telecommunication Facilities to be constructed on the Transmission Facilities and Telecommunication Facilities to be constructed on the Transmission Facilities and Telecommunication Facilities to be constructed on the Transmission Facilities and Telecommunication Facilities to be constructed on the Transmission Facilities and Telecommunication Facilities to be constructed on the Transmission Facilities and Telecommunication Facilities to be constructed on the Transmission and Telecommunication Easement adjacent to the Construction Easement Area. The Construction Easement shall
terminate upon completion of construction of the Guy Facilities and the Transmission Facilities and Telecommunication Facilities constructed on the Transmission and Telecommunication Easement adjacent to the Construction Easement Area, provided that for greater certainty, the term of the Construction Easement shall not, in any event exceed 2 years from the Effective Date. Grantor hereby grants to Grantee, for the benefit of Grantee and its successors and assigns, an exclusive easement ("Guy Easement") on, over, along and under that portion of the Property located within the one hundred and sixty-five foot (165') area as measured from the point of intersection of the center line of the Transmission and Telecommunication Facilities as depicted on the attached Exhibit B ("Guy Easement Area") for the purposes of maintaining, using, operating, repairing, replacing, relocating and removing the Guy Facilities. The term of the Guy Easement shall be 50 years commencing on the Effective Date. Grantee agrees to prepare an "as built" survey or reference plan of the actual Guy Easement Area, and the parties agree to execute and register on title to the Property an amendment to this Agreement which references the "as built" survey or reference plan identifying the actual Guy Easement Area. Once the final reference plan describing the extent of the Construction Easement Area and Guy Easement Area has been prepared and deposited by Grantee on title to the Property, Grantor confirms that Grantee is irrevocably authorized and directed to insert the Part No(s). and Reference Plan No. into the attached Exhibit B without the requirement of any further approval or action by Grantor.

(b) Access Easement. Grantor grants to Grantee a permanent non-exclusive easement (the "Access Easement") for vehicular and pedestrian ingress and egress over, across and along the Property to and from the Construction Easement Area and Guy Easement Area by means of any existing roads or lanes thereon, or otherwise by such route or routes as Grantee or Grantor may construct from time to time. If Grantee needs to construct a road on the Property, it shall have the right to remove trees and clear the portion of the Property reasonably necessary to construct the road and shall coordinate the location of the road with Grantor. Grantee agrees to maintain and repair all roadway improvements constructed by Grantee on the Property for the joint use thereof by Grantor and Grantee for ingress and egress over, across, and along the Property; provided, however, Grantor shall reimburse Grantee for any costs and expenses incurred by Grantee to repair any damage or perform any special maintenance of the roadway caused by any person using the roadway with Grantor's permission. The Telecommunications Easement, Construction Easement, Guy Easement and Access Easement shall hereinafter be referred to collectively herein as "Easements".

2. <u>Ownership</u>. Grantor represents and warrants that it is the registered owner, in fee simple, of the Property with a good and marketable title thereto, and has the right, without the joinder of any other party, to enter into this Agreement and grant Grantee the Easements. Grantor agrees to warrant and defend its ownership of fee simple title to, or an easement over, the Property and Grantee's interest in this Agreement against any other party claiming to have any ownership interest in the Property.

3. <u>Interference</u>. Grantor shall not construct, erect or place or permit to be ... constructed, erected or placed any buildings, improvements, structures, plants, or other obstructions on or in the vicinity of the Construction Easement Area and Guy Easement Area which would interfere with the operation and maintenance of the Guy Facilities. In addition, Grantor shall not excavate within a twenty-five (25') radius of the Guy Easement Area. Grantee is granted the right to remove existing trees and other vegetation located on the Construction

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Easement Area and Guy Easement Area, the mature height of which exceeds fourteen feet (14') and to remove existing trees on adjacent portions of the Property in order to be able to have access to the Construction Easement Area and Guy Easement Area for construction and maintenance purposes. There shall be no replacement of trees except that which has been specifically agreed upon in writing between Grantor and Grantee prior to execution of this Agreement. Grantee shall also have the right and privilege to trim, cut down, or control the growth of trees or any other vegetation on the Property, as in the sole judgment of Grantee may interfere with maintenance, operation, use of, or which in falling might touch any Guy Facilities.

4. <u>Payment</u>. Grantee shall pay Grantor the amounts set forth in Exhibit C as the consideration for the Easements. The parties acknowledge and agree that the registration copy of this Agreement will not contain the payment provisions set forth in Exhibit C, and it is understood and agreed that the deletion of such payment provisions does not and will not in any way affect the validity of this Agreement.

# 5. Assignment by Grantee; Mortgage Rights.

Right to Mortgage & Assign. Grantee, upon notice to Grantor, but without (a) Grantor's consent or approval shall have the right to mortgage, assign, charge, collaterally assign, or otherwise encumber and grant security interests in all or any part of its interest in this Agreement, the Easements, or the Guy Facilities (collectively, its "Facilities Assets"). These various security interests in all or a part of the Facilities Assets are collectively referred to as "Mortgages" and the holders of the Mortgages, their designees, successors and assigns are referred to as "Mortgagees." Grantee's notice to Grantor shall include the name and address of each Mortgagee and/or Assignee (as hereinafter defined). Grantee shall also have the right without Grantor's consent to sell, convey, lease, sublease, grant or assign all or any portion of its Facilities Assets on either an exclusive or a non-exclusive basis, or to grant sub-easements coeasements, separate easements, leases, licenses or similar rights, however denominated (collectively, "Assignment"), to one or more persons or entities (collectively, "Assignees"). Assignees and Mortgagees shall use the Facilities Assets only for the uses permitted under this Agreement. Assignees and Mortgagees shall have all rights and remedies allowed them under then existing laws except as limited by their individual agreements with Grantee, provided that under no circumstances shall any Mortgagee or Assignce have any greater rights of ownership or use of the Property or portions thereof than the rights granted to Grantee in this Agreement.

(b) <u>Grantor Obligations</u>: Grantor agrees to consent in writing to and to execute financing documents, including customary three party lender agreements, as may reasonably be required by Mortgagees. As a precondition to exercising any rights or remedies related to any alleged default by Grantee under this Agreement, Grantor shall give written notice of the default to each Mortgagee and Assignee at the same time it delivers notice of default to Grantee, specifying in detail the alleged event of default and the required remedy. Subject to the following sentence, each Mortgagee and Assignee shall have the same amount of time to cure the default as to Grantee's entire interest or its partial interest in the Facilities Assets as is given to Grantee and the same right to cure any default as Grantee or to remove any property of Grantee, Mortgagees or Assignees located on the Construction Easement Area of Guy Easement Area. The cure period for each Mortgagee and Assignee shall begin to run at the end of the cure period given to Grantee in this Agreement, but in no case shall the cure period for any Mortgagee or

Assignee be less than ninety (90) days after-receipt of the default notice. Failure by Grantor to give a Mortgagee or Assignee notice of default shall not diminish Grantor's rights against Grantee, but shall preserve all rights of the Mortgagee or Assignee to cure any default and to remove any property of Grantee, the Mortgagee or Assignee located on the Construction Easement Area or Guy Easement Area.

(c) <u>Mortgagee/Assignee Obligations</u>. Any Mortgagee or Assignee that does not directly hold an interest in the Facilities Assets, or whose interest is held solely for security purposes, shall have no obligation or liability under this Agreement prior to the time the Mortgagee or Assignee directly holds an interest in this Agreement, or succeeds to absolute title to Grantee's interest. A Mortgagee or Assignee shall be liable to perform obligations under this Agreement only for and during the period it directly holds such interest or absolute title. Any Assignment permitted under this Agreement shall release Grantee or other assignor from obligations accruing after the date that liability is assumed by the Assignee.

#### (d) Right to Cure Defaults/Notice of Defaults/Right to New Agreement.

(1) To prevent Grantor's exercise of any remedies available to it in respect of a default by Grantee under this Agreement, or any partial interest in this Agreement, Grantee, any Mortgagee or Assignee shall have the right, but not the obligation, at any time to perform any act necessary to cure any default and to prevent the exercise of Grantor's remedies in respect of a default by Grantee under this Agreement or any interest in the Facilities Assets.

(2) In the event of an uncured default by the holder of Grantee's entire interest in this Agreement, or in the event of a termination of this Agreement by operation of law or otherwise, each Mortgagee or Assignee of a partial interest in the Facilities Assets shall have the right to have Grantor either recognize the Mortgagee's or Assignee's interest or, in the event of a termination, grant new easements substantially identical to this Agreement. Under the new easements, the Mortgagee or Assignee shall be entitled to, and Grantor shall not disturb, Mortgagee's or Assignee's continued use and enjoyment for the remainder of the term.

(e) <u>Extended Cure Period</u>. If any default by Grantee under this Agreement cannot be cured without obtaining possession of all or part of the Facilities Assets, then any such default shall be deemed remedied if a Mortgagee or Assignee: (a) within ninety (90) days after receiving notice from Grantor as set forth in Section 5(b), acquires possession of all or part of the Facilities Assets, or begins appropriate judicial or nonjudicial proceedings to obtain the same; (b) diligently prosecutes any such proceedings to completion; and (c) after gaining possession of all or part of the Facilities Assets cures defects that are reasonably capable of being cured and not otherwise personal to Grantor and performs all other obligations as and when the same are due in accordance with the terms of this Agreement. If a Mortgagee or Assignee is prohibited by any court or by operation of any bankruptcy or insolvency laws from commencing or prosecuting the proceedings shall be extended for the period of such prohibition.

(f) <u>Certificates</u>. Grantor shall execute estoppel certificates (certifying as to truthful matters, including without limitation that no default then exists under this Agreement, if such be the case), consents to assignment, direct lender agreements and non-disturbance agreements as

Grantee or any Mortgagee or Assignee may reasonably request from time to time. Grantor and Grantee shall cooperate in amending this Agreement from time to time to include any provision that may be reasonably requested by Grantee or any Mortgagee or Assignee to implement the provisions contained in this Agreement or to preserve a Mortgagee's security interest in the Facilities Assets.

6. <u>Mortgagee Protection</u>. Any Mortgagee, upon delivery to Grantor of notice of its name and address, for so long as its Mortgage is in existence shall be entitled to the following protections which shall be in addition to those granted elsewhere in this Agreement:

(a) <u>Mortgagee's Right to Possession, Right to Acquire and Right to Assign</u>. A Mortgagee shall have the absolute right without Grantor's consent: (a) to assign its Mortgage; (b) to enforce its lien, including, to acquire title to all or any portion of the Facilities Assets by any lawful means; (c) to take possession of and operate all or any portion of the Facilities Assets and to perform all obligations to be performed by Grantee under this Agreement, or to cause a receiver or a receiver and manager to be appointed to do so; and (d) to acquire all or any portion of the Facilities Assets by foreclosure, by an assignment in lieu of foreclosure or by quit claim and thereafter without Grantor's consent to assign or transfer all or any portion of the Facilities Assets to a third party. A Mortgagee which assigns or transfers the Facilities Assets to a third party shall notify Grantor of the name and address of the Assignee or transferee.

#### (b) <u>Opportunity to Cure</u>.

During any period of possession of the Construction Easement Area, the (1)Guy Easement Area or the Property by a Mortgagee (or a receiver or receiver and manager requested by a Mortgagee) and/or while any foreclosure, power of sale or other enforcement proceedings instituted by a Mortgagee are pending, the Mortgagee shall pay or cause to be paid the fees and all other monetary charges, if any, payable by Grantee under this Agreement which have accrued and are unpaid at the commencement of the period and those which accrue thereafter during the period. Following acquisition of all or a portion of the Facilities Assets by the Mortgagee as a result of either foreclosure, acceptance of an assignment in lieu of foreclosure, quit claim or by a purchaser under a power of sale or judicial sale, this Agreement shall continue in full force and effect and the Mortgagee or party acquiring title to the Facilities Assets shall, as promptly as reasonably possible, commence the cure of all defaults under this Agreement and thereafter diligently process such cure to completion, whereupon Grantor's rights relating to such default shall be deemed waived; provided, however, that the Mortgagee or party acquiring title to the Facilities Assets shall not be required to cure those defaults which are not reasonably susceptible of being cured or performed by such party ("non-curable defaults"). Non-curable defaults shall be deemed waived by Grantor upon completion of foreclosure proceedings or acquisition of Grantee's interest in this Agreement under a power of sale or iudicial sale.

(2) Any Mortgagee or other party who acquires Grantee's interest in the Facilities Assets pursuant to foreclosure, assignment in lieu of foreclosure, quit claim, under a power of sale or judicial sale or otherwise shall not be liable to perform the obligations imposed on Grantee by this Agreement incurred or accruing after the party no longer has ownership or possession of the Facilities Assets.

#### (c) New Easement:

If this Agreement is terminated for any reason, if the Facilities Assets are (1)foreclosed, or if this Agreement is rejected, repudiated, resiliated or disaffirmed pursuant to bankruptcy law or other law affecting creditor's rights and, within ninety (90) days after such event, Grantee or any Mortgagee or Assignee shall have arranged to the reasonable satisfaction of Grantor for the payment of all fees or other charges due and payable by Grantee as of the date of such event, then Grantor shall execute and deliver to Grantee or such Mortgagee or Assignee or to a designee of one of these parties, as the case may be, new easements to the Construction Easement Area, the Guy Easement Area and the Property which (i) shall be for a term equal to the remainder of the term before giving effect to such rejection, repudiation, resiliation or termination; (ii) shall contain the same covenants, agreements, terms, provisions and limitations as this Agreement (except for any requirements that have been fulfilled by Grantee or any Mortgagee or Assignee prior to rejection, repudiation, resiliation or termination of this Agreement); and, (iii) shall include that portion of the Construction Easement Area, the Guy Easement Area and the Property in which Grantee or such other Mortgagee or Assignee had an interest on the date of rejection, repudiation, resiliation or termination.

(2) After the termination, repudiation, resiliation, rejection or disaffirmation of this Agreement and during the period thereafter during which any Mortgagee shall be entitled to enter into new easements for the Construction Easement Area, the Guy Easement Area and the Property, Grantor will not terminate the rights of any Assignee unless in default under its Assignment.

(3) If more than one Mortgagee makes a written request for new easements pursuant to this provision, the new easements shall be delivered to the Mortgagee requesting such new easements whose Mortgage is prior in lien, and the written request of any other Mortgagee whose lien is subordinate shall be void and of no further force or effect.

(4) The provisions of this Section shall survive the termination, rejection, repudiation, resiliation or disaffirmation of this Agreement and shall continue in full force and effect thereafter to the same extent as if this Section were a separate and independent contract made by Grantor, Grantee and each Mortgagee, and, from the effective date of such termination, rejection, repudiation, resiliation or disaffirmation of this Agreement to the date of execution and delivery of such new easements, such Mortgagee may use and enjoy the Construction Easement Area, the Guy Easement Area and the Property without hindrance by Grantor or any person claiming by, through or under Grantor; provided that all of the conditions for the new easements as set forth above are complied with.

(d) <u>Mortgagee's Consent to Amendment, Termination or Surrender</u>. Notwithstanding any provision of this Agreement to the contrary, the parties agree that so long as there exists an unpaid Mortgagee, this Agreement shall not be modified or amended, and Grantor shall not accept a surrender, abandonment, cancellation or release of all or any part of the Construction Easement Area, the Guy Easement Area and the Property from Grantee, prior to expiration of the term without the prior written consent of the Mortgagee. This provision is for the express benefit of and shall be enforceable by each Mortgagee as if it were a party named in this Agreement.

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(e) <u>No Merger</u>. There shall be no merger of this Agreement or of the Agreement with the fee estate in the Property by reason of the fact that this Agreement or any interest in the Agreement may be held, directly or indirectly, by or for the account of any person or persons who shall own any interest in the fee estate. No merger shall occur unless and until all persons at the time having an interest in the fee estate in the Property and all persons (including each Mortgagee) having an interest in this Agreement or in the estate of Grantor and Grantee shall sign and record a written instrument effecting such merger.

(f) Liens. On the Effective Date, title to the Property shall be free and clear of all monetary liens other than those expressly approved by Grantee. With respect to any such liens approved by Grantee, Grantor shall nevertheless obtain either non-disturbance agreements or postponements from the holders of such liens in favour of Grantee and this Agreement, such agreements or postponements, as the case may be, to be reasonably satisfactory to Grantee. Thereafter, any mortgage, deed of trust or other monetary lien registered against Grantor's interest in the Property, shall be subject to and subordinate to this Agreement, to any Assignment or Mortgage then in existence on the Facilities Assets as permitted by this Agreement, and to Grantee's right to encumber the Facilities Assets. Grantor agrees to cause any monetary liens registered against Grantor's interest in the Property in the future to incorporate the conditions of this Section.

(g) <u>Further Amendments</u>. At Grantee's request, Grantor shall amend this Agreement to include any provision which may reasonably be requested by a proposed Mortgagee; provided, however, that such amendment shall not impair any of Grantor's rights under this Agreement or increase the burdens or obligations of Grantor under this Agreement. Upon the request of any Mortgagee, Grantor shall execute any additional instruments reasonably required to evidence such Mortgagee's rights under this Agreement.

6. <u>Legal Fees</u>. In the event of any controversy, claim or dispute arising out of or relating to the Agreement or the enforcement or breach hereof, the prevailing party shall be entitled to recover from the losing party the prevailing party's reasonable costs, expenses and solicitors' fees (including but not limited to those incurred at trial, or on appeal.

7. <u>Binding Effect; Governing Law</u>. This Agreement shall be binding upon and shall inure to the benefit of both Grantor and Grantee, and their respective heirs, successors and assigns, and shall be deemed a covenant running with the Property for all purposes. The provisions hereof shall be governed by and construed in accordance with the laws of the Province of Ontario. Grantee agrees that this Agreement and the rights, privileges and easements granted pursuant thereto shall be declared to be an easement in favour of a generator, transmitter or distributor for the purpose of generation, transmission or distribution within the meaning of Section 42.1 of the *Electricity Act*, 1998.

8. <u>Family Law Act</u>. Grantor represents and warrants to Grantee that if Grantor is an individual, Grantor is either not married, or if married, his or her spouse either comprises a Grantor hereunder or such spouse has consented to the grant of Easements to Grantee pursuant to the terms herein by executing a copy of this Agreement, and if Grantor is a corporation, the portions of the Property subject to the Easements have never been occupied by any of the directors, officers or shareholders of Grantor or the spouses of such directors, officers or

shareholders and there are no shares in existence entitling the holders of such shares to occupation of the buildings. Accordingly, the portions of the Property subject to the Easements do not comprise a family residence within the meaning of the *Family Law Act*.

9. <u>Grantee's Right to Assign</u>. Grantee shall have the right, but without the need for Grantor's consent or approval, to assign or convey all or any portion of the Agreement to an assignee or assignees, on an exclusive or nonexclusive basis.

10. <u>Grantee's Statutory Rights</u>. This Agreement shall not affect or prejudice Grantee's statutory rights to acquire the portions of the Property subject to the Easements under any laws, including, without limitation, Grantee's statutory rights under the *Ontario Energy Board Act*, 1998, which rights may be exercised at Grantee's discretion, in the event, Grantor being unable or unwilling for any reason to perform this Agreement, or, give to Grantee a clear and unencumbered title to the easement and right-of-way herein granted.

11. <u>Planning Act</u>. This Agreement and the provisions hereof which create, or, are intended to create an interest in the Property shall be effective to create such an interest only if the subdivision control provisions of The Planning Act, R.S.O. 1990 c. P. 13, as amended are complied with. Grantee hereby declares that the interest in the Property being acquired by Grantee pursuant to this Agreement is for the purposes of a renewable energy generation facility or a renewable energy project in accordance with Section 50 (3)(d.1) or 50 (5)(c.1) of the *Planning Act* (Ontario).

12. <u>Registration</u>. Grantee shall be entitled, at its cost and expense, to register this Agreement or a notice in respect thereof, and any required reference plans or survey in the applicable Land Registry Office, and, Grantor agrees to execute, at no cost to Grantee, all necessary instruments, plans and documentation for that purpose.

13. <u>Setback Waiver</u>. To the extent that (a) Grantor now or in the future owns or leases any other land adjacent to the Property, or (b) Grantee leases or holds an easement/license or a lease over other land adjacent to Property, and has installed or constructed or desires to install or construct any Transmission Facilities on said land at and/or near the common boundary between the portions of the Property subject to the Easements and said land, Grantor hereby waives any and all setbacks and setback requirements, whether imposed by law or by any person or entity, including, without limitation, any setback requirements described in the zoning by-laws of the County and/or the Province of Ontario or in any governmental entitlement or permit heretofore or hereafter issued to Grantee. If so requested by Grantee, Grantor shall promptly, without demanding additional consideration therefore, execute, and if appropriate cause to be acknowledged, any setback waiver, setback elimination or other document or instrument required by any governmental authority or that Grantee deems necessary or convenient to the obtaining of any entitlement or permit.

14. <u>Termination</u>. Grantee shall have the right to terminate this Agreement at any time upon 30 days written notice to Grantor. Upon full or partial termination of the Agreement, Grantee shall remove all physical material pertaining to the Guy Facilities and restore the portions of the Property previously subject to the Easements to substantially the same physical condition that existed immediately before the installation of the Guy Facilities. In the event of

termination, Grantee has no right to recover any amounts previously paid to Grantor as consideration for this Agreement.

15. <u>Notices</u>. All notices to be given hereunder shall be in writing and all such notices and any payments to be made hereunder may be made or served personally or by registered letter addressed to Grantor at:

To Grantor:

Telephone: (416) 364-9714

To Grantee:

Goshen Wind, Inc. 390 Bay Street, Suite 1720 Toronto, ON, M5H 2Y2, Canada Attention: Business Management Telephone: (416) 364-9714

With a copy to:

Goshen Wind, Inc. 700 Universe Blvd. Juno Beach, FL 33408 Attention: Business Management Telephone: (561) 691-7171 Facsimile: (561) 691-7307

or such other address, as Grantor or Grantee respectively may from time to time advise and any such notices or payments shall be deemed to be given and received by the addressee upon personal service or, if served by registered letter, fourteen (14) days after mailing thereof, postage prepaid. In the event of a postal interruption, all notices to be given and all payments to be made hereunder may be made or served personally or delivered to the intended recipient at the address of the recipient set out above. Grantee shall also be permitted to make any payment to Grantor electronically at Grantee's discretion and subject to Grantor's consent.

16. <u>Counterparts</u>. This Agreement may be executed in two or more counterparts, each of which will be deemed an original, but all of which together shall constitute one and the same and t

17. <u>Ownership of Guy Facilities</u>. Notwithstanding any rule of law or equity, all property and equipment placed or operated on the Guy Easement Area by or on behalf of

Grantee shall, at all times, remain the personal property of Grantee even though the same maybe ..... attached to the Guy Easement Area.

[Remainder of page intentionally left blank, signature page follows]

أحمد ومروقته فالتعريب المستحد والمتحافظ المتعاطية

EXECUTED effective the day and year first hereinabove written.

## **GRANTOR:**

Witness:

Per:\_

Name: Address:

Date: \_\_\_\_\_

**GRANTEE:** 

Goshen Wind, Inc. a New Brunswick company

. . . . . . .

Per:

Michael O'Sullivan, Vice President "I have authority to bind the corporation"

# EXHIBIT A

# Legal Description of Property

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# BEING THE WHOLE OF PIN NO.

## EXHIBIT B

. . .

## Construction Easement Area and Guy Easement Area

(Insert description from reference plan)

DESIGNATED AS PART(S) \_\_\_\_\_ ON PLAN 18R - \_\_\_\_,

BEING PART OF PIN NO.

#### EXHIBIT C

#### **COMPENSATION**

Payment terms available upon request by a person who has an interest in the subject lands.

In consideration for granting the Easements to Goshen Wind, Inc. a company incorporated pursuant to the laws of the Province of New Brunswick and authorized to conduct business in the Province of Ontario ("Grantee"), \_\_\_\_\_\_ ("Grantor"), within sixty (60) days following a final ALTA Survey depicting the Final Easements and Guy Facilities, shall receive the following payment:

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Payment shall be distributed as follows:

Per:\_\_\_\_\_

Signature required for each payee:

Date

Date

#### STATUTORY DECLARATION

#### **RE: PLANNING ACT**

#### STATE OF FLORIDA

COUNTY OF PALM BEACH

#### DECLARATION REQUIRED UNDER SECTION 50 OF THE PLANNING ACT, R.S.O. 1990, as amended

I, Michael O'Sullivan, Vice President, of the Town of Juno Beach, State of Florida,

)

)

DO SOLEMNLY DECLARE THAT

1. I am the Vice President of Goshen Wind, Inc., a company incorporated pursuant to the laws of the Province of New Brunswick and authorized to conduct business in the Province of Ontario ("Grantee") and as such have knowledge of the matters herein deposed to.

2. The use of or right in the land described in the Construction, Maintenance and Access Easement Agreement to which is this declaration is attached is being acquired by Grantee, for a period of 21 or more years but not more than 50 years for the purpose of a renewable energy generation facility or renewable energy project in accordance with Section 50(3)(d.1) or 50(5)(c.1) of the *Planning Act* (Ontario) and I hereby make this declaration that it is being acquired for such purpose.

AND I make this solemn declaration conscientiously believing it to be true and knowing that it is of the same force and effect as if made under oath, and by virtue of *The Canada Evidence Act*.

Michael O'Sullivan, Vice President

STATE OF FLORIDA

COUNTY OF PALM BEACH

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 2013 by Michael O'Sullivan, as Vice President of Goshen Wind, Inc., the general partner for and on behalf of Summerhaven Wind, LP.

)ss:

In witness whereof, I hereunto set my hand and official seal.

(Seal)

Notary Public My Commission Expires: \_\_\_\_\_

Filed: 2013-04-03 Goshen Wind, Inc. Exhibit F Tab 1 Schedule 6 Pages: 2

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# EXISTING UTILITIES MAP

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#### COMMUNITY AND STAKEHOLDER CONSULTATION

- 46. Proponents of renewable energy projects are required to obtain a REA from the MOE, which prerequisites (the "**REA Requirements**") are prescribed by the REA Regulation and include substantive public consultation requirements. In particular, the goals of consultation under the REA Regulation are to:
  - Ensure that relevant information about the renewable energy project proposed to be developed is provided to the relevant Aboriginal communities, members of the public, municipalities and local boards;
  - (b) Obtain/identify relevant information/local knowledge from the local community, municipalities and Aboriginal communities;
  - (c) Identify concerns that may arise from the proposed renewable energy project; and
  - (d) Address concerns by way of providing additional information, explanation, changing project design or making commitments in response to local input.
- 47. In order to meet the REA requirements for consultation (set out in O.Reg 350/09, Section 16), the Applicant is required to abide by set notification requirements for public meetings, hold at least two public meetings in each municipality where the Project is situated, make drafts of all REA Reports available for public review at least 60-days prior to the final public meeting and document consultation initiatives and public input in the "Consultation Report"<sup>4</sup>. The Consultation Report includes an Aboriginal consultation report ("Aboriginal Consultation Report"), attached hereto (without appendices) as Exhibit G, Tab 1, Schedule 2. In addition to the Consultation Report, several ancillary reports<sup>5</sup> are required to meet REA Requirements. The Applicant has met the REA Requirements and has also engaged Aboriginal communities, Municipal staff and councils, HONI and local landowners regarding the GWEC generally and the proposed Facility.
- 48. <u>Public consultation:</u> Landowners in the area were first notified of the proposed GWEC in May 2010 by a mass mailing and notices in local papers, and invited to attend an initial public meeting that was held in June 2010. There were a number of meetings to which the general public was invited, including in December 2011. Specific consultation regarding the Facility was conducted in May 2012 with public meetings held in Bluewater and South Huron Municipalities on May 29<sup>th</sup> and 30<sup>th</sup>. The public notification, which included the placement of notices in newspapers that are

<sup>&</sup>lt;sup>4</sup> Due to the voluminous nature of the Consultation Report, it is not included in this Application. However, a copy of the Consultation Report can be viewed at www.nexteraenergycanada.com.

<sup>&</sup>lt;sup>5</sup> The other reports that make up the REA application include: Archaeological Stage 1 Assessment Report, Archaeological Stage 2 Assessment Report, Construction Plan Report, Consultation Report, Decommissioning Plan Report, Design and Operations Report, Heritage Assessment Report, Natural Heritage Assessment, Project Description Report and Water Assessment and Water Body Report. These reports can be viewed at www.nexteraenergycanada.com.

Filed: 2013-04-03 Goshen Wind, Inc. Exhibit G Tab 1 Schedule 1 Page 2 of 4

widely circulated in the region, was conducted in accordance with the REA requirements. The landowners were again notified in October 2012 of the final public meetings, which notification included information regarding where copies of the Draft REA Reports could be obtained for information and review. The final public meetings were held on January 9 and 10, 2013 and included maps and descriptions of the proposed Facility. Copies of the final public meeting documents are attached hereto as Exhibit G, Tab 1, Schedule 3. A report on the consultations for the Facility is attached as Exhibit G, Tab 1, Schedule 4. The table below summarizes consultation activities for the GWEC and the Facility:

CONSULTATION ACTIVITY	DATE COMPLETED	O.REG 359/09
Notice of Proposal Sent to Identified Aboriginal Communities	May 26, 2010	Required
Notice of Proposal to Engage in a Project and of First Public Meeting – Municipality of South Huron	May 26, 2010	Required
First Public Meeting – Municipality of South Huron	June 29, 2010	Required
Draft Project Description Report (PDR) made Available to the Public*	June 29, 2010	Required
Landowner Workshop	February 15, 2011	Additional
Project Newsletter #1	May, 2011	Additional
Round Table Meeting	July 19, 2011	Additional
Project Newsletter #2	October, 2011	Additional
Consultation Form and Draft PDR to Municipalities*	October 26, 2011	Required
Notice of Drop-in Information Session	November 25, 2011	Additional
Drop-in Information Session	December 6, 2011	Additional
Notice of First Public Meeting – Municipality of Bluewater	November 2, 2011	Required
First Public Meeting – Municipality of Bluewater	December 8, 2011	Required

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Project Newsletter #3	May, 2012	Additional
Telephone Town Hall	September 13, 2012	Additional
Notice of Draft Site Plan /Draft Site Plan Release	July 4, 2012	Additional
Distribution of Draft Documents for Review - Municipal	September 27, 2012	Required
Distribution of Draft Documents for Review - Public	October 11, 2012	Required
Distribution of Draft Documents for Review - Aboriginal	October 10, 2012	Required
Notice of Final Meeting – Municipalities of South Huron and Bluewater	October 10, 2012	Required
Final Public Meeting – Municipalities of South Huron and Bluewater	January 9 and January 10, 2013	Required

- Each meeting consisted of multiple panels explaining key aspects of the GWEC and 49. the Facility, and the process of developing, permitting, constructing, operating and decommissioning. Representatives of the Applicant were in attendance along with expert consultants to ensure that the appropriate subject matter experts were on hand to engage in discussion with attendees and provide detailed answers to any questions or concerns that were raised. A full record of public concerns raised and how they were addressed by the Applicant is included in the Consultation Report. A dedicated email account and toll-free number<sup>6</sup> were made available to the public prior to the initial public meeting and will continue to be maintained by the Applicant until the GWEC is commissioned to allow open communication with interested parties. A communications and emergency response plan is included in the Design & Operations Report within the REA application outlining ongoing communication protocols. Draft ancillary reports were made available on the NextEra Energy Canada, ULC website (www.nexteraenergycanada.com), and in hard copy at the Municipalities' head offices and Aboriginal communities. Certain reports were sent by mail to interested residents upon request. Once the REA Application is deemed complete by the Ministry of the Environment, the Final REA reports, including the Consultation Report, will be posted on NextEra Energy Canada's website.
- 50. <u>Aboriginal Consultation:</u> As detailed in the Aboriginal Consultation Report and as of the time of this application, no specific concerns related to the Facility or the GWEC

<sup>&</sup>lt;sup>6</sup> Email: Goshen.wind@nexteraenergy.com; 1-877-257-7330 (in place until the project attains commercial operation), dedicated phone number to be put in place for the Applicant after the date of commercial operation.

Filed: 2013-04-03 Goshen Wind, Inc. Exhibit G Tab 1 Schedule 1 Page 4 of 4

have been raised by Aboriginal groups. The Applicant submits that the construction of the Facility will not adversely affect any constitutionally protected Aboriginal or treaty rights of the communities identified in the consultation process and should not result in any negative environmental effects that may be of concern to those communities.

Filed: 2013-04-03 Goshen Wind, Inc. Exhibit G Tab 1 Schedule 2 Pages: 72

# ABORIGINAL CONSULTATION REPORT

# **ABORIGINAL (FIRST NATION AND MÉTIS) CONSULTATION REPORT**

FOR:

# **PROPOSED GOSHEN WIND ENERGY CENTRE**

Goshen Wind, Inc.

(a wholly owned subsidiary of NextEra Energy Canada, ULC)

Report Updated as of January 11, 2013

Aboriginal Consultation Report for Goshen Wind Energy Centre

As of: January 11, 2013 (v. 1.3)

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# Executive Summary

NextEra Energy Canada, ULC ("NextEra") on behalf of its wholly owned subsidiary, Goshen Wind, Inc., has undertaken a thorough program of consultation with Aboriginal communities for the Goshen Wind Energy Centre project ("the Project", or "Goshen"). The results of the program indicate there will be no impacts to Aboriginal or treaty rights or other residual environmental impacts that may be of concern to Aboriginal communities if the Project is approved and implemented with the mitigation outlined in the reports and studies that have been submitted in accordance with Ontario Regulation 359/09 ("the Regulation", or "the REA"). Additionally, no concerns have been expressed <u>to date</u>, or other information brought forward by Aboriginal communities that resulted in a need to make changes to the Project.

This Aboriginal Consultation Report provides a detailed description of NextEra's consultation program for the Project.

Section 2 of this Report identifies all communities consulted for the Project. NextEra has been communicating with Aboriginal communities about its Ontario FIT projects since 2008. A Director's List of Aboriginal communities to be consulted for Goshen was requested on August 10, 2010 and received on April 8, 2011. The list included eight Aboriginal governments (i.e. communities); six for potential rights, and two for potential interests in environmental effects. Through inquiries made by NextEra, two additional traditional Aboriginal councils and one elected band council have been included in Project consultation activities, and one of the communities on the Director's List provided a written confirmation of no requirement for further consultation about the Project.

Section 3 of this Aboriginal Consultation Report describes both the consultation activities required under the Regulation and how they were complied with, as well as additional activities undertaken by NextEra to cooperatively review the Project with Aboriginal communities. Delivery of the required information and notices to comply with Ontario Regulation 359/09 are summarized in Table 3.1.1. All required notices and information have been delivered, in compliance with the REA. Beyond those requirements, NextEra has made

Aboriginal Consultation Report for Goshen Wind Energy Centre

As of: January 11, 2013 (v. 1.3)

additional information and opportunities for dialogue available to all Interested Aboriginal communities about both the Project specifically, and wind energy in general. This is also described in Section 3.

Section 4 describes the consultation activities undertaken with each individual community <u>for</u> <u>the Project</u>. In many cases, this dialogue is ongoing. Communications and a collaborative approach will continue during the remaining planning, construction and operations phases for Goshen.

Section 5 of the Aboriginal Consultation Report provides the concluding summary of consultation results to date for the Project. No impacts to Aboriginal or treaty rights, and no significant residual impacts to the natural environment are anticipated, given the results of the studies for the REA Table 1 Reports and NextEra's commitments for mitigation and follow-up. Section 6 describes NextEra's further commitments to ensure the veracity of those conclusions through ongoing communications with Aboriginal communities and a management system approach to address any unexpected issues or concerns that may be raised.

Section 6 describes NextEra's commitment to ongoing dialogue and communication with First Nation and Métis Communities, which will be an integral component of corporatecommunity relations.

Appendixes to the Aboriginal Consultation Report include: relevant policy documentation; complete chronologies of all contacts with the affected communities; relevant correspondence; and, cross-references ("Tables of Concordance") to issues or values that were identified by some Aboriginal communities. NextEra feels that these issues have been addressed in the REA Table 1 Reports (i.e. the reports submitted in fulfillment of the Goshen renewable energy approval application to Ministry of Environment).

Aboriginal Consultation Report for Goshen Wind Energy Centre

# 1. Context

NextEra Energy Canada, ULC together with Canadian Green Power (CGP) is proposing to construct a wind energy project in Bluewater and South Huron, Huron County, Ontario. This project has been awarded a Feed-in-Tariff contract by the Ontario Power Authority and is presently seeking a Renewable Energy Approval.

Please see the Goshen Project Description report for details on the Project, project study area locations and proposed facilities.

#### 1.1 Description of Project

The Project will be referred to as the Goshen Wind Energy Centre (the "Project") and will be located on private lands in the vicinity of the shoreline of Lake Huron. It is generally bounded by Zurich-Hensall Road to the north, Mt. Carmel Drive to the south, Parr Line to the east and Bluewater Highway and the South Huron/Lambton Shores municipal boundary and Blackbush Line to the west.

NextEra Energy Canada is the proponent for the Project; however, the Project will be owned and operated by Goshen Wind Inc., a wholly owned subsidiary of NextEra Energy Canada. NextEra Energy Canada's parent company is NextEra Energy Resources, LLC, a global leader in wind energy generation.

The Project Study Area consists of the areas being studied for the wind farm components (Wind Energy Centre Study Area), as well as for the interconnection route area being studied for transmission lines to connect the Project to the electrical grid (Transmission Line Study Area). Please see the Project Description Report, section 2 for a description of the facilities proposed, and map 1.1.1, below, which shows the Project Study Area.

Map 1.1.1 Goshen Project Location Map



As of: January 11, 2013 (v. 1.3)

#### 1.2 Regulatory Framework for Aboriginal Consultation

The Crown's Duty to Consult with Aboriginal peoples arises when a government considers an authorization or action that may affect Aboriginal rights or title. The Duty belongs to the Crown. It is grounded in the honour of the Crown and the Crown cannot delegate its Duty to a proponent. The Crown can, and in the case of Ontario Regulation 359/09, has delegated procedural aspects of its Duty to proponents. As an agent of the Crown, Ministry of Environment must ensure that the Duty to Consult has been discharged before taking a decision on a project that may impact Aboriginal rights or interests.

The Project is subject to approval under Ontario Regulation 359/09 (the "Regulation" or the "REA"). In addition, all such projects require a Feed In Tariff Contract ("FIT Contract") from the Ontario Power Authority. The REA contains specific actions that proponents must include in their procedural consultation with Aboriginal communities, and the FIT Contract application emphasizes both the importance of Aboriginal consultation and the applicant's commitment to conducting it in a thorough manner. The process of Aboriginal consultation is sometimes described analogously as "the path we walk together"<sup>1</sup>, rather than as a specific step or task in a larger process. As a result, consultation in project development may not, and arguably should not, have a distinct start and end point (see Figure 1.2.1, below) that perfectly aligns with regulatory milestones. Providing information, seeking mutual understanding, working towards consensus and relationship building are all part of the process. They all require time and ongoing effort.

Procedural consultation guidance to REA proponents is contemplated in a Ministry of Environment "Draft Aboriginal Consultation Guide for Preparing a Renewable Energy Approval Application" ("the Draft Guide"). The Draft Guide was issued in Summer 2011 and has not yet been finalized, however, proponents have been advised by MOE to have regard to it when planning and implementing their Aboriginal consultation programs.

Aboriginal Consultation Report for Goshen Wind Energy Centre

<sup>&</sup>lt;sup>1</sup> François Paullette, Fort Smith First Nation.



#### Source: Ministry of Environment

The proponent's responsibility under the REA and FIT Contract is therefore to: seek to establish a process of information-sharing and dialogue with Aboriginal communities who may be affected by its Project; learn about Aboriginal values (rights, interests and way of life) that are relevant to the Project; and, seek mutually acceptable solutions that are within the proponent's control, ability or authority, to avoid or mitigate negative impacts to those values.

#### 1.3 NextEra's Approach to Aboriginal Consultation

This section describes the general approach NextEra follows in carrying out Aboriginal

consultation and the resources it is providing to Aboriginal communities to support that process.

NextEra's approach to procedural consultation with interested First Nation and Métis communities is guided by a NextEra Energy Canada, ULC "First Nation and Métis Relationship Policy" ("NextEra's Policy"). NextEra's Policy is based on five key principles:

- 1. Fostering a collaborative working relationship with potentially impacted First Nation and Métis communities as early as practicable.
- 2. Understanding and recognizing applicable aboriginal and treaty rights and interests.
- 3. Understanding and respecting the cultural integrity of First Nation and Métis communities potentially impacted by NextEra's projects.
- 4. Fulfilling all delegated obligations to consult and (where applicable) accommodate First Nation and Métis communities.
- 5. Being open to discuss a broader relationship with potentially impacted First Nation and Métis communities and host First Nation and Métis communities.

A copy of NextEra's Policy is enclosed in Appendix A.

NextEra has also developed an "Ontario Projects - Archeological Protocol" document that seeks to establish a respectful and collaborative approach to project archaeology, with clear lines of communications and protocols to address significant finds. An external archaeological consultant reviewed the Protocol to ensure consistency with the Ministry of Tourism and Culture's 2011 "Standards and Guidelines for Consulting Archaeologists". It has also been circulated to interested Aboriginal communities for their review and comment. No specific comments have been received.

A copy of NextEra's Archaeological Protocol is enclosed in Appendix B.

NextEra has been actively communicating with all First Nation and Métis communities who

Aboriginal Consultation Report for Goshen Wind Energy Centre

express interest in its projects. In southern Ontario, these efforts have been ongoing since approximately 2007. Up to twenty Aboriginal communities, some of which have interest in multiple projects, have been contacted for information sharing and discussions about the eight NextEra wind energy projects with FIT Contracts, including Goshen.

While the Director's List identified eight communities, eleven First Nation and Métis governments (see Section 2.1) were directly consulted about Goshen. One of the communities identified by the Director has confirmed they do not need to be consulted about the Project. The process of communication will continue with the interested communities throughout the Project's life cycle (i.e. through planning, construction, operations and decommissioning).

In addition to the requisite information delivered pursuant to Ontario Regulation 359/09, each community has received additional "Project-specific" location, planning, process and schedule information. Communities have also been provided with general materials that include information on the wind industry and wind energy technology. This additional Project-specific and general information is meant to build a foundation, on which more meaningful Project-specific consultations can be developed. The general information is comprised of:

- 1. A NextEra "Community Reference Materials" binder, with general industry, technology, mapping, web site, project summary and contact information. This binder has received compliments from community staff. A copy of the index from the original and the updated binder is enclosed in Appendix C.
- 2. A NextEra general project location map (also in binder), which is reproduced below as Map 2.1.1.
- A list of NextEra southern Ontario FIT projects, with key milestone dates to assist with planning consultation activities, including those for this Project. The list is updated for any significant changes. A copy of the most recently updated list is enclosed in Appendix D.

4. "Archaeological Communiqués", which describe: planned fieldwork; the responsible archaeologist; names of First Nation and independent monitors (where applicable); and, NextEra contact information. The communiqué is issued periodically and includes Project-specific information. A copy of the most recent communiqué is enclosed as Appendix E.

This multi-project experience helps NextEra increase its understanding of Aboriginal-related practices and potential issues. It also provides a good opportunity for communities to learn about wind energy generally, and the various NextEra projects specifically. As information is shared both by NextEra and the communities, the collective knowledge base grows and forms a basis for greater understanding and working together. Information that is shared and learned from one project can improve planning and decision-making on others.

NextEra also works with individual Aboriginal governments to discuss and seek agreement on providing them with appropriate capacity resources they may need to effectively participate in the consultation process. This may include independent archaeological monitoring, third party expertise for reviewing draft Project REA Table 1 Reports (see list of reports in section 1.5, below), necessary administrative support and/or community meeting costs to review the Project, or projects. The scope of these discussions includes technical review of the project planning, construction and post-construction monitoring stages, however, as explained in NextEra's First Nation and Métis Relationship Policy, the company is open to discussing broader relationships.

#### 1.4 Aboriginal Government Consultation Protocols

NextEra has regard to all consultation protocols and policies that are issued by Aboriginal governments with interests in a NextEra project. All communities being consulted for this Project with such protocols and policies are identified in the individual community consultation narratives in Section 4.0, below, and copies have been included in Appendix F.

# 1.5 Aboriginal Consultation Links to Natural Heritage and Archaeology REA Components

Over the course of development of the Project REA, Aboriginal communities have been provided with information and outcomes of specific studies related to the key areas of natural and cultural environment. The draft reports and other documents (collectively, "the draft Project REA Table 1 Reports") provided to Aboriginal communities were:

- Project Description Report and update.
- Natural Heritage Assessment Report (and corresponding sign-off letter from Ministry of Natural Resources).
- Stage 1 and 2 Archaeological Assessment Reports and Heritage Assessment Report.
- Construction Plan Report (and corresponding sign-off letters from Ministry of Tourism, Culture and Sport).
- Design and Operations Report (including Noise Assessment Report).
- Decommissioning Plan Report.
- Water Assessment and Water Body Report.
- Wind Turbine Specification Report.
- "Plain language" summaries of REA reports.
- Shadow Flicker Report.
- Turbine Visualizations.
- Project location mapping, including study area location relative to reserves, claims and First Nation traditional territory/Métis traditional harvest territory.

In short, the information shared with Aboriginal communities touches on three key areas: (A) Natural Environment; (B) Cultural Environment; and, (C) Land.

#### (A) Natural Environment

Any Project activities that directly or indirectly have a negative impact on species, habitat or ecosystems that are used for food, ceremonial or social purposes that are integral to an Aboriginal right would be of immediate concern. NextEra received information from some communities about species or habitats of importance to those communities ("Aboriginal

values"). Preparation of the Project REA Table 1 Reports took these values into consideration and is discussed for the applicable communities in Section 4, below, with cross-reference to the applicable Project REA Table 1 Report in Appendix G (called "Tables of Concordance").

The overall conclusion of the Natural Heritage Assessment Report and the Water Assessment and Water Body Report is that, with the mitigation measures proposed in the Project REA Table 1 Reports, this Project can be constructed and operated without any significant adverse residual effects that could harm the natural environment. Therefore, to the extent that an Aboriginal community has a right or interest that is based on use of the natural environment, there should be no significant impact.

Post-construction monitoring related to effects on wildlife, including birds and bats, will also be undertaken to confirm the foregoing conclusion. Please refer to the Project REA Table 1 Reports, submitted as part of the REA Application for this Project for specific descriptions of potential effects and the mitigation measures and monitoring proposed. NextEra has sited its facilities appropriately and will implement all environmental mitigation and monitoring as set out in the Project REA Table 1 Reports. NextEra will continue to work with Aboriginal communities concerning potential environmental concerns during construction and post-construction monitoring, as explained in Section 6 "Next Steps", below.

#### (B) Cultural

NextEra has completed Stage 1 and 2 archaeological studies for the Project. The Stage 2 archaeological assessment has documented 61 sites through pedestrian surveys including 36 pre-contact Aboriginal, 20 historic Euro-Canadian, and five multi-component sites with both pre-contact Aboriginal and historic Euro-Canadian artifacts. Of those, approximately 30 sites were recommended for a Stage 3 assessment prior to ground disturbance to document any artifacts that may be present. As of the date of this report, the Stage 3 assessment had not yet begun. NextEra will continue to work with Aboriginal communities regarding potential archaeological concerns through monitoring during construction, as explained in Section 6 "Next Steps", below.

Aboriginal Consultation Report for Goshen Wind Energy Centre

NextEra submits that its ongoing communications and Archaeological Protocol, the presence of an independent First Nations monitor, the results of the archaeology work to date and the planned monitoring during ground disturbance activities, will result in no significant cultural impacts that could be of concern to Aboriginal communities.

#### (C) Land

A strength of claims analysis was completed by outside legal counsel in order to: (a) confirm the completeness of the Directors' List; and (b) fully understand the existing treaties and claims within the Project area, and guide NextEra's consultation program. The strength of claims analysis involved consideration of the Longwoods Treaty of 1822, the Huron Tract Treaty of 1827; and the Nanfan Treaty of 1701. The Longwoods and Huron Tract Treaties cover in excess of three million acres of southwestern Ontario. The two treaties took many years to negotiation and finalize with the Chippewa bands in the region, and there have been a number of discrepancies and disputes associated with the treaties (e.g., failure to provide Reserve lands, fair compensation) which persist to this day and have given rise to claims by the four key Chippewa communities. NextEra has considered these treaty rights in its consultation efforts with the Chippewas of the Thames, the Chippewas of Kettle and Stony Point, the Chippewas of Aamjiwnaang, and Walpole Island First Nation (all of which are identified on the Goshen Director's List as having constitutionally-protected Aboriginal rights).

The 1701 Nanfan (or Albany) Treaty made between the British Crown and the (then) five Iroquois Nations or Haudenosaunee Confederacy covers virtually all of southern Ontario and therefore the Project is within the Nanfan Treaty area. NextEra has had discussions with Nanfan Treaty successor rights holders in relation to all of NextEra's proposed wind farms, including considerations as to the ability to exercise such treaty rights over private lands as well as the impact of the Goshen Project on species that migrate across private and public lands. Traditional Haudenosaunee governments at Six Nations Confederacy Council and Oneida Council of Chiefs assert rights under the 1701 Nanfan Treaty. Six Nations of the Grand River (elected) Council assert a responsibility to protect the air, lands and waters

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within the 1701 Nanfan Treaty area. None of these three governments were identified on the Director's List for Goshen.

NextEra does not believe that the Project will result in significant impacts to any species that may be hunted, fished or harvested pursuant to the Nanfan Treaty or Longwoods/Huron Tract Treaties (see, "(A) Natural Environment" above). Consequently, NextEra submits that the Project will not impact on any existing or asserted treaty rights, or other interests in the natural environment.

As of: January 11, 2013 (v. 1.3)
# 2. Aboriginal Communities with Potential Interest in the Project

This section describes the First Nation and Métis governments that have been identified as having potential interests in approval, construction and operation of the Project.

As required by O.Reg.359/09, the draft Project Description Report was provided to the Director of the MOE in order to obtain the Aboriginal Communities List, as per s.14 (1)(b). The list identifies Aboriginal communities who:

- (i) Have or may have constitutionally protected Aboriginal or treaty rights that may be adversely impacted by the project, or
- (ii) Otherwise may be interested in any negative environmental effects of the project.

The list was received via letter dated April 8, 2011.

## 2.1 Director's List

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The following table identifies communities included in the Director's List of April 8, 2011 (left hand column) and the Director's rationale for including them (right hand column).

Director's List	Notes
Aamjiwnaang First Nation Chippewas of Sarnia Sarnia 45	Identified as may have constitutionally protected Aboriginal or treaty rights. Referred to in this report as "Aamjiwnaang First Nation"
Chippewas of Kettle and Stony Point FN Kettle Point 44	Identified as may have constitutionally protected Aboriginal or treaty rights. Referred to in this report as "Kettle and Stony Point First Nation".
Chippewas of the Thames First Nation Chippewas of the Thames 42	Identified as may have constitutionally protected Aboriginal or treaty rights. Referred to in this report as "Chippewas of the Thames First Nation".

TARIE 211	ABORIGINAL	COMMUNITIES	IDENTIFIED
THOLE Z.T.T.	ADDITIONAL	COMMONTIED	

Director's List	Notes
Delaware Nation Moravian of the Thames Moravian 47	Identified as may have interests in potential negative environmental effects.
	Referred to in this report as Moravian of the Thames Delaware First Nation.
Munsee-Delaware First Nation Munsee 1	Identified as may have interests in potential negative environmental effects.
	Referred to in this report as "Munsee-Delaware First Nation".
Oneida Nation of the Thames First Nation Oneida 41	Identified as may have constitutionally protected Aboriginal or treaty rights.
	Referred to in this report as "Oneida of the Thames First Nation".
Bkejwanong Territory Walpole Island First Nation	Identified as may have constitutionally protected Aboriginal or treaty rights.
	Referred to in this report as "Walpole Island First Nation".
Historic Saugeen Métis	Identified as may have constitutionally protected Aboriginal or treaty rights.

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#### MAP 2.1.1 Aboriginal Communities and NextEra Ontario FIT Projects

Map 2.1.1 shows the location of southern Ontario First Nations in relation to the Project location, and to NextEra's other eight Ontario FIT projects. Available information for traditional territory areas is shown, as well as the approximate area of assertion for the 1701 Nanfan Treaty.



## 2.2 Additional Communities Consulted

NextEra determined that additional Aboriginal governments expressed interests in the Project where treaty rights are asserted under the 1701 Nanfan Treaty, as explained in Section 1.5 (C), above. The following communities were included in the consultation activities described in this report. The rational for doing so is also set out in Table 2.2.1, below.

Additional Communities Consulted	Recionale
Haudenosaunee Confederacy Chiefs Council (HCCC)	HCCC assert a treaty right to harvest within the 1701 Nanfan Treaty area (see Map 2.2.1), including both Crown and private lands. NextEra engaged with HCCC, through its delegated staff secretariat, the Haudenosaunee Development Institute ("HDI") about potential impacts to the natural environment, which may affect harvest activities.
Oneida Council of Chiefs	Oneida Council of Chiefs is one of the traditional councils within the Haudenosaunee Confederacy Council. Oneida Council of Chiefs participates through the HDI process, and was engaged by NextEra as part of HDI's evaluation of the Project.
Six Nations of the Grand River Elected Council (SNEC)	SNEC have issued a 2011 Consultation and Accommodation Policy, which asserts SNEC's responsibility to protect the air, land and water within the 1701 Nanfan Treaty area (see Map 2.2.1). NextEra engaged with SNEC to consult about potential impacts to the natural environment.

## Table 2.2.1 Additional Communities Consulted

#### MAP 2.2.1 1701 Nanfan Treaty Beaver Hunting Grounds

Map 2.2.1 identifies the approximate area of the 1701 Nanfan Treaty, and the so-called beaver hunting grounds, between the British Crown and the, then, Five Nations Iroquois Confederacy, or Haudenosaunee. Due to the location of the Project within this area, Aboriginal communities who did not appear on the Director's list but who assert rights or interests pursuant to the Nanfan Treaty were included for consultation purposes on the Project.



# 3. Consultation Activities Applicable to All Aboriginal Communities

#### 3.1 Description of Activities

This section gives an overview of the required consultation activities undertaken under the

REA to ensure identified and other interested Aboriginal communities were made aware of and kept informed of the Project activities and provide opportunity to make comments, ask questions and explain concerns regarding the Project. For a detailed list of compliance activities required under O. Reg. 359/09, methods of consulting, dates and communities involved, please see Table 3.1.1, below.

#### 3.1.1 Preparation of draft PDR

The draft Project Description Report ("PDR") was prepared in June 2010. Copies of the draft PDR were included in a binder titled, "Community Reference Material", which was delivered to the Chief and/or responsible staff the same month. The binder was delivered to all communities who had been identified for any and all NextEra Ontario wind projects, including, of course, Goshen.

# Applicant's Aboriginal Consultation Process under O. Reg. 359/09

- 1. Prepare draft Project Description Report (PDR)
- 2. Obtain Aboriginal Consultation list
- 3. Provide Notices
- 4. Distribute draft PDR to communities
- 5. Hold 1st public meeting
- 6. Integrate comments
- 7. Circulate report summaries
- 8. Discuss and work with communities; integrate comments
- 9. Provide draft project documents to communities
- 10. Discuss and work with communities; integrate comments
- 11. Hold final public meeting
- 12. Integrate comments
- 13. Prepare REA application
- 14. Submit REA application and inform communities

Source: Draft Aboriginal Consultation Guide for preparing Renewable Energy Application, Ministry of the Environment, Spring 2011, p. 8

#### 3.1.2 Obtain Director's List

The Director's List of Aboriginal communities for the Project was requested on August 10, 2010 as per s.14 (1)(b). The list was received via letter dated April 8, 2011.

# *3.1.3 Notice of Proposal to Engage in a Renewable Energy Project and Notice of Public Meeting #1*

The Notice of Proposal and Notice of the first Open House (public meeting #1) were delivered to Aboriginal communities on June 29, 2010. Communities included in the delivery were as identified by NextEra, as the Director's List had not been received at that point in time. NextEra confirms that a copy of the notice was delivered by Canada Post as set out in Table 3.1.1, below, however no covering letters accompanied the notice.

#### 3.1.4 Distribute Draft PDR to Communities

As explained in section 3.1.1, copies of the draft PDR were included in a binder titled, "Community Reference Material", which was delivered to the Chief and/or responsible staff. The binder was delivered to all communities who had been identified for any and all NextEra Ontario wind projects, including, of course, Goshen. An updated PDR was delivered on November 2, 2011. Copies of the cover letters for this delivery are included in Appendix I.

#### 3.1.5 Hold First Public Meeting

The first of a number of public meetings for Goshen was held on June 29, 2010.

Additional public meetings were held December 8, 2011, May 29, 2012 and May 30, 2012 (see section 3.1.11. below).

#### 3.1.6 Integrate Comments

Comments received from the public at the Open Houses, and through ongoing communications were addressed and integrated as part of the REA process. No comments specific to Aboriginal values or interests were submitted at the open houses.

General comments requested and obtained from Aboriginal communities were provided to NextEra's environmental consultants to consider in preparing the draft REA Table 1 Reports. These general issues are described in Section 4, as well as in the Tables of Concordance in Appendix G for the communities that provided a response.

#### 3.1.7 Circulate Report Summaries

"Plain language summaries", were prepared and delivered with the set of draft Project Table 1 Reports On October 10, 2012 together with the updated draft Project REA Table 1 Reports (see 3.1.9, below). Copies of the cover letter for these deliveries can be found in Appendix I.

#### 3.1.8 Discuss and Work with Communities

The process of discussing the Project and working with Aboriginal communities began far in advance of delivering the requisite notices and reports, continued through the period of open houses and report deliveries, and is ongoing. Dialogue with communities interested in Goshen began as early as 2008, and specifically for Goshen with delivery of the Community Reference materials binders in June 2010.

NextEra is working with multiple Aboriginal communities, and for multiple projects that are of interest to them. This has resulted in regular, ongoing communications aimed at finding common ground and deeper understanding of all parties' interests. Please see the Project-specific description of consultation activities in Section 4.0, below.

#### 3.1.9 Draft REA Reports and Report Summaries

As per O. Reg. 359/09 S.16 (5) (c and d), the draft Project REA Table 1 Reports were sent to each Aboriginal community with identified interests in the Project (i.e. the Director's List plus the additional communities identified by NextEra) on October 10, 2012 in both hard copy and CD versions. The reports were delivered to the Chief, or Métis President, with copies to the

responsible staff person, or persons. The following reports and other notices were included with the October 12, 2012 deliveries.

- Project Description Report (updated)
- Construction Plan Report
- Design and Operations Report
- Decommissioning Plan Report
- Wind Turbine Specification Report
- Natural Heritage Assessment Report
- Water Assessment and Water Body Report
- Heritage Assessment Report
- Stage 1 and 2 Archaeological Assessment Report
- Shadow Flicker Report
- Report Summaries

Each community was specifically requested to provide their views related to:

- Anticipated adverse impacts the Project may have on constitutionally protected Aboriginal or treaty rights;
- Other concerns about potential negative impacts to the environment they anticipated, and;
- Any suggestions for mitigating impacts they identified.

Written comments or feedback regarding the draft REA Table 1 Reports was requested so that it could be considered during the planning stages of the Project and for inclusion in the REA application. NextEra also offered to meet with communities regarding the REA reports so that any comments, concerns or issues could be conveyed and reflected in the REA, if not addressed directly with those communities.

#### 3.1.10 Discuss and Work with Communities

As explained above, the process of discussing the Project and working with Aboriginal communities began far in advance of delivering the requisite notices and reports, continued through the period of open houses and report deliveries, and in ongoing. NextEra is working with multiple Aboriginal communities, and for multiple projects that are of interest to them. This has resulted in regular, ongoing communications aimed at finding common ground and deeper understanding of all parties' interests. In some cases, communities accepted offers from NextEra, or made requests for capacity assistance to review, meet and discuss the draft REA Table 1 Reports. These cases are described in the *Project-specific description* of consultation activities in Section 4.0, below.

#### 3.1.11 Hold Final Open House(s)

More than two open houses (public meetings, or "PM") were held for the Project.

- 1. PM 1 was held June 29, 2010, as described in section 3.1.5.
- 2. PM 2 was held on December 8, 2011. It was considered a "first" open house in the Municipality of Huron East. Notices were delivered on November 2, 2011
- 3. PM 3 and 4 were held on May 29 and 30, 2012 respectively. These open houses were held in respect of the transmission line route for the Project. Notice was delivered to communities on April 23, 2012.
- 4. The final open houses were held on January 9 and 10, 2013. Notices for these open houses were delivered to communities on October 10, 2012.

No attendees identified themselves as Aboriginal community members or representatives at these open houses.

#### 3.1.12 Integrate Comments

Comments received from the public at the Open Houses, and through ongoing communications with Aboriginal communities were addressed and integrated as part of the REA process.

As of the date of this report, NextEra is continuing dialogue with a number of communities about Goshen as described in Section 4. It is expected such communications will continue throughout the Project life cycle as described in Section 6, below.

#### 3.1.13 Prepare REA Application

This consultation report has been prepared as part of the Project REA application, and reflects the consultation work completed to date.

#### 3.1.14 Submit REA Application and Notify Communities

NextEra has an established practice of notifying interested Aboriginal communities upon filing its REA applications, upon receipt of the "application complete" status from the Ministry of Environment, and upon receipt of the Ministry Environment posting of its REA decision. These letters will be sent to all Aboriginal communities on the Director's List for the Project and the additional communities NextEra identified, to notify them that the Project's REA has been filed.

The following Table summarizes NextEra's compliance with Ontario Regulation 359/09 notice and information requirements for Aboriginal consultation on Goshen.

## Table 3.1.1 Summary of REA Notification Compliance for Goshen

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The following table summarizes the dates, method and recipients of the requisite notices under Ontario Regulation 359/09 (i.e. completed after the REA came into force) for the Project.

O/Reg. 359/09 Section	ActionRequired	Dato Completed	Aporiginal Community	Matheal
14	Request Director's List	Request: August 10, 2010	May have constitutionally protected rights:	Via letter from Ministry of the
		Receipt: April 8,	"Chippewas of Kettle and Stony Point, Kettle Point 44	Environment
		2011	Chippewas of the Thames First Nation, Chippewas of the Thames 42	
			Aamjiwnaang First Nation, Sarnia 45	
			Bkejwanong Territory, Walpole Island First Nation, Walpole Island 46	
			Oneida Nation of the Thames, Oneida 41	
			Historic Saugeen Métis"	
			May be interested in negative environmental effects:	·
			"Munsee-Delaware First Nations, Munsee Delaware Nation 1	
			Delaware Nation Moravian of the Thames"	

O/Reg 359/09 Section	Action Required	Dato Completed	Aportginel Community	Method
	Delivery and distribution of all requ communities according to their inst	ired notices and rep tructions, as follows:	orts were addressed to the foreg	joing "Director's List"
	Chippewas of Kettle and Chippewas of Aamjiwnaa Chippewas of the Thame Walpole Island First Nati Oneida Nation of the Tha Munsee-Delaware First I Moravian of the Thames Historic Saugeen Métis	Stony Point First N ang First Nation es First Nation on ames Nation Delaware First Nati	on	
	Additional communities who express distribution of notices and reports v	ssed interest in the were:	Goshen Project and that were inc	cluded in delivery and
	Oneida Council of Chiefs Council), c/o Haudenosa	s (as a traditional co aunee Development	uncil within the Haudenosaunee Institute	Confederacy Chiefs
	Six Nations of the Grand	River (referred to a	s Six Nations Elected Council)	
	Six Nations Confederacy c/o Haudenosaunee Dev	/ Council (referred to velopment Institute)	o as Haudenosaunee Confedera	cy Chiefs Council),
	In all cases, correspondence and r Chair, or to a delegated staff role, v	notices were address with copies and enc	sed to the applicable Chief, Pres losures sent to the responsible s	ident or Committee taff role(s).
	(Note: To save space, this list is n involved, the notation "All Commun	ot duplicated in the hities" appears.)	table. Where all of the above co.	mmunities were
Public Meetings ("PM")	Open Houses, or "public meetings" and May 29 and May 30, 2012 ("P and 10, 2013 ("PM5" and "PM6").	" (PM) were held on M3" and "PM4"). Th	June 29, 2010 ("PM1"), Decemi e Final open houses (Final PM)	ber 8, 2011 ("PM 2"), were held January 9
	PM1 and PM2 are considered the held to provide an update on the p PM5 and PM6 are considered the	roposed changes re "Final Public Meetin	garding a transmission line for th garding a transmission line for th gs" for the REA Process.	e Project. Lastly,
15.3	Publication of Notices			
	Notices must be distributed at leas before the final public meeting is h	t 30 days before the eld.	first public meeting is held and a	at least 60 days
	Each notice must be published on local municipality in which the proje	at least two separat ect location is situate	e days in a newspaper with gene ed.	eral circulation in each
	If reasonable to do so, notice shou the Director's List, however, in the	ld be published in a case of this Project,	newspaper printed by each abor no news <i>papers</i> are published in	iginal community on the communities.
1	The dates of the PM notices were as follows.			
	Notice of Proposal and Notice of June 29, 2010 PM1	<u>Exeter Times</u> <u>Advocate</u> (May 26 and June 2, 2010)	These publications were in general circulation in the vicinity of the Project.	Newspaper
		<u>Lakeshore</u> <u>Advocate</u> (June 2 and 23, 2010)		
		<u>London Free</u> <u>Press</u> ) May 28		

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0/Reg: 359/09 Section	Action Required	Dîto Completed	Apprightleonmenting	പ്രാനംദ
		and June 23, 2010) <u>Goderich Signal-Star</u> (June 2 and 23, 2010)		
	Notice of December 8, 2011 PM2	<u>Turtle Island</u> <u>News</u> (November 2 and 30, 2011)	All communities. Notice in <u>Turtle Island News</u> was published <u>in addition to</u> 5 newspapers in general circulation in the vicinity of the Project.	Publication
	Notice of May 29 and May 30, 2012 PM3 and PM4	Turtle Island News (April 25 and May 23, 2012)	All communities. Notice in <u>Turtle Island News</u> was published <u>in addition to</u> 5 newspapers in general circulation in the vicinity of the Project.	Publication
	Notice of were held January 9 and 10, 2012 PM5 and PM6 (i.e. Final PMs )	Turtle Island News (December 12, 2012 and January 2, 2013)	All communities. Notice in <u>Turtle Island News</u> was published <u>in addition to</u> 4 newspapers in general circulation in the vicinity of the Project.	Publication
15.5.ii	Deliver Notices to all Aboriginal C Notices must be distributed at leas before the final public meeting is he	ommunities t 30 days before the eld.	first public meeting is held and a	t least 60 days
-	A total of 6 PMs were held for the 0 1. PM 1 was held June 29, 2. PM 2 was held on Decen Huron East.	Goshen Project, as 1 2010. mber 8, 2011. It wa	öllows: s considered a "first" open house	in the Municipality of
	<ol> <li>PM 3 and 4 were held or respect of the transmission</li> <li>The final open houses (Final open house)</li> </ol>	on <b>May 29 and 30,</b> on line route for the PM 5 and 6) were he	2012 respectively. These open Project. eld on January 9 and 10, 2013.	houses were held in
:	The dates of distribution of these n	otices was:		
	Notice of Proposal/June 29, 2010 PM1	May 26, 2010	Chippewas of Kettle and Stony Point First Nation Chippewas of the Thames First Nation Aamjiwnaang First Nation Bkejwanong Territory (Walpole Island First Nation) Oneida Nation of the Thames Munsee-Delaware Nation Delaware Nation Council (Moravian of the Thames)	Notice (only) delivered via Canada Post. No covering letters.

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O/Reg 359/09 Section	ActionRequired	Date Completed	Aboriginal Community	Licihod
			Southern First Nations Secretariat (Note: The Director's List had not been issued at this time.)	
	Notice of December 8, 2011 PM 2	November 2, 2011	All Communities	Written correspondence delivered via courier. See Appendix I for covering letters.
	Notice of May 29 and May 30, 2012 PM3 and PM4	April 23, 2012	All communities	Written correspondence delivered via courier. See Appendix I for covering letters.
	Notice of January 9 and 10, 2012 PM5 and PM6 2012 Final PMs	October 10, 2012	All Communities	Written correspondence delivered via courier. See Appendix I for covering letters.
16(1)	Hold at least two public meetings ("PM").	See explanation o	f PM's above.	
16.(2)(c)(d)	Make paper copies of draft PDR available at least 30 prior to PM1. Distribute draft PDR at least 30 days prior to PM1. (note this requirement was an Amendment to O. Reg. 359/09 which came into force after PM1)	Original draft PDR was delivered as part of Community Reference materials in June, July, September and October 2010. Updated PDR was delivered November 2, 2011.	All Communities.	Paper copy of updated PDR transmitted by written correspondence delivered via courier. See Appendix 1 for November 2, 2011 covering letters.
16.(5)(c)	Make paper copies of draft Project REA (Table 1) reports available at least 60 days before Final PM.	October 10, 2012	All Communities	One paper copy and 2 CD copies transmitted by written correspondence
16.(6)	<ul> <li>Distribute drafts of REA (Table 1) reports.</li> <li>Draft Project REA Table 1 Reports distributed on October 10, 2010 were: <ul> <li>Project Description Report</li> <li>Construction Plan Report</li> <li>Design and Operations Report</li> <li>Decommissioning Plan Report</li> <li>Wind Turbine Specification Report</li> <li>Natural Heritage</li> </ul> </li> </ul>			Appendix I for covering letters

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O/Reg 359/09 Section	Action Required.	Date Completed	Apoily in Community	රිගෝමෝ
	Assessment Report Water Assessment and Water Body Report Heritage Assessment Report Stage 1 and 2 Archaeological Assessment Report Shadow Flicker Report Report Summaries			
17.(1)1.	Distribute draft PDR: First Draft Updated Draft	See 16.(2)(c) and See 16.5(d), 16.(6	(d), above. ). Above	I
17.(1)2.	Provide information on adverse impacts to any Aboriginal or treaty rights identified by the community.	No information on potential adverse impacts was known and no such impacts were expected.	N/A	N/A
17.(1)3.i <i>.</i>	Distribute a summary of all draft REA [Table 1] Reports.			······
17.(1)4.	Make a written request for information relevant to REA.	See 16.(2)(c) and	(d), above.	
17.(1.1)(a)	Make the s. 17.(1)4 written request before making documents under 16.(5) available.	See 16.5(d), 16.(6	). Above	
17.(2)(a)	Communicate with each community about any constitutionally protected aboriginal or treaty rights that the community has identified as being adversely impacted.	Has been continuous throughout project planning and is ongoing. Please see section 4.	All communities	See Section 4.
17.(2)(b)	Communicate with each community about measures for mitigating any adverse impacts referred to in clause (a), including any measures identified by the community.	Has been continuous throughout project planning and is ongoing. Please see section 4.	All communities	See Section 4.
54.1(c) ii	Publish notice of draft site plan in a newspaper published in each Aboriginal Community on the Director's List where it is reasonable to do so.		N/A	Publication
54.1(c) and (V)	Give copies of Notice of Draft Site Plan.	June 29, 2012	All Communities	Paper copy transmitted by correspondence delivered via courier. See Appendix I for covering letters.

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Aboriginal Consultation Report for Goshen Wind Energy Centre

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As of: January 11, 2013 (v. 1.3)

O/Reg. 359/09 Section	Action Required	Dato Completed	குஷியாடுகையால்	Method
54.1(d)	Make paper copies of Draft Site Plan available and distribute within 5 days of publishing Notice.	June 29, 2012	All Communities	Paper copy transmitted by correspondence delivered via courier. See Appendix I for covering letters.
54.1(e)	Distribute draft site plan within 5 days of publishing Notice.	See 54.1(c)	See 54.1(c) and (v), above.	See 54.1(c) and (v), above.

## 3.2 Additional Consultation Activities

In order to foster informed ongoing dialogue and engagement about the Project, and other NextEra projects, NextEra also carried out a number of additional Aboriginal consultation-related activities (i.e. beyond those considered in Ontario Regulation 359/09) with all Aboriginal communities noted in Section 2 of this report, as follows:

- 1. In May 2010, NextEra offered to host leadership from all Ontario Aboriginal communities with potential interests in NextEra Projects, at the CanWEA conference titled "Building the Wind Energy Supply Chain in Canada", held on June 9-10, 2010 in Toronto. The purpose was to offer broader information about the wind energy industry that would be of potential interest beyond procedural consultation under the REA and have a chance to meet in person. Three communities sent representative to this conference out of over twenty invitations offered, and two attended the conference; one being from a "Goshen community".
- NextEra has offered to make presentations about its projects to Aboriginal leadership and communities and has done so whenever invited. This includes presentations to leadership, committees of council and attendance at community events. These actions are detailed in the individual consultation summaries in Section 4, below.
- NextEra has established a practice of circulating an "Archaeological Communiqué" to all Aboriginal communities with interests in its projects; two communiqués have been issued to date (Fall 2011 and Spring 2012). These communiqué describe planned field

work, its timing, the consulting archaeologist and contact information for more information, and for the appropriate NextEra representatives.

- 4. NextEra has also provided capacity funding for a fully independent First Nations archeology monitors for the Project. The monitor, Brandy George of Brandy George Cultural Research Inc. is a licensed Ontario archaeologist and First Nations person. The monitor's mandate is to liaise with interested Aboriginal communities to obtain any relevant information for potential locations of cultural and spiritual importance, and to monitor and report on the activities of the consulting archaeologist's field crews. Her reports are available to all First Nations communities, and are specifically provided to Oneida Council of Chiefs, Kettle & Stony Point First Nation, Aamjiwnaang First Nation and Walpole Island First Nation. To date, the independent monitor has raised no concerns and has been satisfied with the consulting archaeologist's fieldwork.
- 5. NextEra also offers to host field orientation meetings at the outset of archaeological fieldwork. The field orientation meetings were a suggestion from one of the Project Aboriginal communities. The meetings are meant to be an opportunity for community staff and leadership to meet the consulting archaeologist on site, discuss the proposed work and review contact information for NextEra's, "Ontario Projects Archaeological Protocol". While only one community has responded to these invitations to date, they will continue to be offered as part of the regular Archaeological Communiqué summaries issued periodically, before the start of fieldwork. To date, only one community has accepted an invitation.
- 6. NextEra has prepared and delivered a "Community Reference Materials" binder containing: general wind industry and technology information; project location mapping; additional information sources; relevant project information, such as newsletters; and, NextEra contact information. The binder is meant to provide a quick reference for staff or for community members. The initial binder included the Goshen draft Project Description Report. One update to the binder has been circulated, which

included the "Goshen Project: Wind Energy News" newsletter to provide current project status. Please see Section 4 for dates of delivery to individual communities.

- 7. NextEra distributed project summary tables in the Fall 2011 with information on project locations, nameplate capacities, number of turbines, and current status of fieldwork. To assist Aboriginal community staff with planning for report reviews and related consultation activities an additional summary table was distributed in Spring 2012 with key milestone dates and lists of the Project REA Table 1 Reports to be produced. Copies of both these summaries are found in Appendix D.
- 8. In order to be proactive at all stages of REA development, there has been, and continues to be ongoing personal, telephone and e-mail contact with staff in Aboriginal communities. The number, scope and frequency of these ongoing efforts are illustrated by the Chronologies of Communication reproduced in Appendix H. These Chronologies represent the broader effort of communication, information sharing and engagement across all NextEra FIT projects. *Project-specific summaries have been extracted in a narrative for each community in Section 4 that outline the process, discussion and issues, which are specific to Goshen.*
- 9. NextEra is developing initiatives that seek to establish broader relationships with Aboriginal communities, including: an "opportunities outreach" program to provide information on wind energy and company opportunities in employment and procurement; and, a scholarship program. One outreach meeting and presentation was held through the Southern First Nations Secretariat meeting of Economic Development Officers on October 12, 2012.
- 10. The draft text of the community summaries in Section 4 of this report was forwarded to most Aboriginal communities for comment and to ensure that this report adequately reflects any project-related comments received.

# 4. Community-Specific Aboriginal Consultation For Goshen

This section builds on the description of required and additional consultation activities in Section 3.0 that are applicable to all communities. It describes the process and results of consultation for each individual community in a narrative format, with specific reference to the Project.

As can be seen from the following sections of this report, the degree of consultation and engagement with Aboriginal communities varies. Although a consistent effort has been made to engage them, not each and every community has responded with the same degree of interest. While NextEra does offer to assist where capacity is needed to enable meaningful participation, each community responds according to the community's own priorities. A wind farm proposal is typically only one of any number of issues, events or other matters that community leadership and staff are addressing.

Supporting data for this section is included in the following Appendixes:

- i. Appendix H Chronologies of communication with each community.
- ii. Appendix I Copies of covering letters accompanying information required to be delivered for the REA.
- iii. Appendix F Copies of Aboriginal government consultation protocols and policies.
- iv. Appendix G "Tables of Concordance" that cross-reference lists of Aboriginal values provided to NextEra with Project Table 1 Report sections that address them.

Although the Appendixes provide supporting documentation, <u>each community summary</u> <u>below, is intended to provide a full description of efforts made, the results achieved and the</u> <u>plans going forward for Goshen.</u> Updates to these summaries will be provided as meaningful developments take place, and/or as requested by Ministry of the Environment to assist it in evaluating the Project REA.

#### 4.1 Chippewas of Aamjiwnaang

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Communications and information sharing with Chippewas of Aamjiwnaang First Nation ("Aamjiwnaang") began in 2008 for the Goshen project. Please see Appendix H.1 for a complete chronology of all communications concerning the five projects of interest to Aamjiwnaang, including Goshen.

All requisite delivery of REA notices and information have been completed, as more specifically set out in Table 3.1.1, above.

Aamjiwnaang was one of the first Aboriginal communities to work with NextEra to complete a third party review of a project's REA reports. That review was for a different project, the Bornish Wind Energy Centre. Although the Bornish draft Project REA Table 1 Reports were subsequently changed, the review was considered a successful experience. It contributed to Aamjiwnaang's understanding of the Project, to NextEra's understanding of Aamjiwnaang's perspectives, and established an effective process for other project reviews. In that process, a third party reviewer, retained by Aamjiwnaang and funded by NextEra, provided a draft review report of the draft Natural Heritage Report. A meeting was arranged among the third party reviewer, Aamjiwnaang Environment department staff, NextEra's natural heritage consultants and a NextEra representative. The Aamjiwnaang reviewer's draft report was a focus for discussion that resulted in clarification of information contained in the draft Natural Heritage Report and responses to questions raised by the reviewer. After the meeting the reviewer finalized his report and submitted it to Aamjiwnaang. This experience helped to lay the groundwork for a Joint Assessment Committee approach, described below. (Aamjiwnaang and two other communities, Kettle and Stony Point and Walpole, are the participants in the Joint Assessment Committee, currently reviewing Goshen and other projects.)

NextEra's first "Community Reference Materials" binder was delivered to Aamjiwnaang at a meeting with Aamjiwnaang staff on June 15, 2010. The binder was developed as a handy reference guide for Aboriginal community staff. It included a map of all Ontario projects, including Goshen, a Project Description Report for Goshen and general industry and

company information. The binder was updated and delivered to Aamjiwnaang staff November 10, 2011. It included an updated web site address to obtain Project information and draft Project REA Table 1 reports.

At the June 15, 2010 meeting, a request for information about Aboriginal values to be considered in preparing the Project REA Table 1 reports was made by NextEra, but information was not available at that time. A subsequent request was made November 3, 2011 but information was not available.

At the June 15 2010 meeting, Aamjiwnaang staff put forward the idea of hosting an archaeology fieldwork orientation meeting, prior to such work beginning. This suggestion was accepted and extending such an invitation to all First Nations communities became a feature of NextEra's archaeological communiqué process.

On August 10, 2010, NextEra received Aamjiwnaang's Consultation and Accommodation Protocol; an updated copy is included in Appendix F.1. In addition to describing important values and principles to guide consultation, and the roles of all parties, the Protocol set clear expectations for provision of relevant information and capacity to inform and support the steps in the consultation process. Developing plans to meet this goal has therefore been the focus on consultation efforts prior to and since the delivery of the draft Project REA Table 1 reports.

In addition to staff contacts, NextEra met with the Aamjiwnaang Health and Environment Committee of Council on July 7, 2011. This was an information-sharing meeting requested by the Committee concerning Adelaide, Bornish, Bluewater, Goshen and Jericho wind energy centre projects; the five projects of interest to Aamjiwnaang. At the meeting, NextEra provided an overview of its Ontario projects including Goshen. The current schedule and the purpose and process for the draft Project REA Table 1 reports were explained. The following questions and responses were covered in the ensuing discussion:

Aamjiwnaang Question/Issue	Response Provided
Are the NHAs an ongoing process or all finished	The process required under Ontario Regulation
(question posed in relation to Ravenswood project,	359/09 (510-10) ("REA") is for NHA reports to be

Aamjiwnaang Question/Issue	Response Provided
which is not a NextEra development).	submitted, plus a construction and operations report. This will include post-construction monitoring for a three-year period to validate predicted impacts and effectiveness of mitigation.
Do turbines affect earthworms?	Not aware of such information from operating wind farms, but a study by Epsilon may help address this question. The study was forwarded to Aamjiwnaang after the meeting.
How do local (non-Aboriginal) communities feel about wind farms?	Based on polls completed by industry, the majority of people support renewable energy. There is a very vocal minority who oppose them. The Kent Breeze wind farm approval was appealed to the Environmental Review Tribunal, and the appeal was turned down. NextEra sent location information on Kent Breeze so that Committee members could visit the site.

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Aamjiwnaang Question/Issue	Response Provided
The NextEra presentation used the words "With a good heart" to describe its approach to Aboriginal consultation. To Aboriginal people, this means a binding arrangement. NextEra's presentation states that is a \$23 billion company, but First Nations face huge resource constraints, both in terms of community capacity and access to natural resources that First Nations feel were "stolen" with no compensating benefits to First Nations. Aamjiwnaang will need to know what the benefits of a project are before we say, "OK". In other words, what will we do together to make this a better place?	<ul> <li>Some conceptual ideas were put forward at the meeting to start a conversation about what areas to explore for "a better place" noted in bullets below. Additional actions subsequent to the meeting are indicated <i>in underlined italics.</i></li> <li>NextEra must be prepared to listen and respond to their concerns. For example, the concerns may be those of Aboriginal hunters over impact to harvest species. <i>NextEra will maintain ongoing communications with all Aboriginal communities through the construction and operations phases, and will respond to concerns, as explained in Section 6, below.</i></li> </ul>
	• Education for youth and future generations is important. <u>NextEra has developed a First Nation</u> <u>and Métis Relationship Policy that includes such</u> <u>initiatives.</u>
	Access to information about wind farms and the industry is important. NextEra has provided this information in its Community Reference Binders, presentations and web sites. <u>NextEra is</u> <u>developing an Opportunities Outreach initiative to</u> <u>further address this request.</u>
	Aboriginal involvement in [construction and effects] monitoring should be considered. NextEra is open to Aboriginal monitors during construction and post-construction monitoring. <u>NextEra is</u> <u>developing an "Opportunities Outreach" initiative</u> for construction and operations phases.
	<ul> <li>Provide a list of contractors, and the goods and services the projects will need to Economic Development Officers. <u>This will be addressed in</u> <u>the "Opportunities Initiative".</u></li> </ul>
	<ul> <li>Keep dialogue open and ongoing. NextEra is maintaining ongoing dialogue.</li> </ul>
	<ul> <li>In short, "Let us be part of the process." NextEra welcomes active involvement of all Aboriginal communities in planning, constructing and operating its facilities. <u>NextEra's First Nation and</u> <u>Métis Relationship Policy includes specific</u> <u>measures to foster Aboriginal involvement at</u> <u>various levels.</u></li> </ul>

On August 2, 2012, NextEra indirectly received a copy of the "Aamjiwnaang First Nation Health and Environment Committee Comments and Concerns on Wind Power Projects" (see

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copy in Appendix J.1). While not sent directly to NextEra, it is understood that the comments are intended as Aamjiwnaang's general response to wind proposals in their Traditional Territory. NextEra and its environmental consultants completed a review of the concerns statement, and have prepared responses as a basis for discussion. A copy is enclosed as a Table of Concordance and is included in Appendix G.1. NextEra will confirm with Aamjiwnaang if it wishes to meet separately to discuss the concerns statement and NextEra's responses, or to meet and discuss it as part of a Joint Assessment Committee, in which Aamjiwnaang is participating. This initiative is described below.

Aamjiwnaang is a participant with two other First Nations in a Joint Assessment Committee for five NextEra projects. A meeting with staff from Kettle and Stony Point First Nation, Aamjiwnaang First Nation and Walpole Island First Nation took place on January 12, 2012 to explore the possibility of a joint technical review of the draft Project REA Table 1 Reports for all five projects. There was agreement in principle to that idea and options for retaining third party reviewers and capacity funding were discussed. The review would include all five projects (namely Adelaide, Bornish, Bluewater, Goshen and Jericho) that were of common interest to all three First Nations. It was acknowledged that there may be common issues among the First Nations and there was no desire or need to create duplicate effort and information. A number of follow-up e-mails took place with staff from all three First Nations and on March 22, 2012 NextEra was advised that the three First Nations had agreed to work together as a Joint Assessment Committee ("JAC") to facilitate review of the five NextEra projects. The JAC is made up of technical staff from each of the three First Nations, plus their consultant.

On March 23, 2012 NextEra received a proposal for the technical review work from JAC's consultant, Ben Porchuk, for review and discussion. An initial telephone discussion took place with the JAC. NextEra then met with staff from the three First Nations (now operating as the JAC) and Ben Porchuk on May 8, 2012 at Aamjiwnaang First Nation to finalize the review proposal. An approach to completing the review work was discussed and a consensus was reached. The terms of reference for the third party reviews were agreed to be two-fold:

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- To review the draft REA Table 1 Reports for three projects, including Goshen, and provide a draft discussion report of questions or issues. The draft discussion report will form the basis of a meeting between NextEra and JAC, after which it will be finalized and used to inform the consultation processes of the three First Nations;
- Work with each community, to provide an Issues List Report, specifically addressing the questions posed in Ontario Regulation 359/09 for <u>all five</u> projects (including Goshen) of interest to the First Nations represented by JAC, namely:

"What information is available that should be considered in finalizing the Project Companies' [i.e. NextEra's] Renewable Energy Approval reports ("REA Reports") and planning for the Projects, and in particular, what information is available about any potential adverse impacts that the Projects may have on constitutionally protected aboriginal or treaty rights and any measures for mitigating those adverse impacts?"

In addition to a third party review of three draft Project REA Table 1 Reports for three projects (including Goshen), NextEra agreed to capacity funding for the reviewer to explore broader issues in the form of an Issue Report, applicable to all five to the NextEra projects of interest to JAC communities. The terms of reference for the Issues Report was as follows:

- 2. The scope of work for the Issues Report shall be :
  - i. Overview of natural systems in enveloping counties Joint First Nations Wildlife Habitat Corridor:
    - Review Big Picture Project from the Carolinian Canada Coalition, the Natural Heritage System (NHS) from Federation of Ontario Nature; NHS and planning documents in various counties (Lambton, Middlesex and Huron Counties).
    - Mapping these NHS features for relevant sections of Lambton, Middlesex and Huron Counties
    - Mapping of wind turbines existing in above identified area as well as adjacent lands in southwester Ontario Region (including counties noted above, as well as Essex, Kent and Bruce for greater perspective).
    - Combining map layers (NHS and Wind Turbines) and interpretation cumulative picture of wind turbine farms and NHS in the manner similar to that recommended by *Natural Heritage Systems: Connecting the Green Dots*

ii. Potential for natural habitat enhancements such as:

- Corridors, habitat improvements and First Nations community involvement
- iii. Potential for First Nations involvement in monitoring programs, such as:
  - Monitoring through bird banding and/or radar studies
- iv. Pollinator Issues

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 What are the unanswered questions among communities concerning pollinators and wind development?

In other words, the JAC consultant would produce two draft reports. One would be a technical review of the draft REA Table 1 reports for three projects (including Goshen). The second would be an Issues Report, applicable to all five of the projects the JAC communities had in common.

The draft Project REA Table 1 Reports were delivered to Aamjiwnaang and the other JAC communities on May 4, 2012 (see letters in Appendix I.8).

- The third party reviewer's draft REA Review report and Issues List report were received November 11, 2012 and an initial meeting to begin a dialogue about the reports took place with JAC and their reviewer on December 10, 2012 at Aamjiwnaang First Nation. A follow-up meeting is planned after receipt of revised draft reports in January 2013, after which time they will be finalized.
- NextEra is also awaiting receipt of information from Aamjiwnaang to develop a work plan and budget to implement their specific community consultation process for the Project. It is expected that the results of the JAC reviewer's reports will inform the scope of the work plan.

As more fully explained in section 1.5, however, NextEra is confident that no adverse impacts to Constitutionally protected Aboriginal or treaty rights of Aamjiwnaang First Nation, or significant negative environmental effects will result from approval of the Project. Consultation with Aamjiwnaang is ongoing. NextEra will continue to work with Aamjiwnaang using the results of the JAC review process to inform Aamjiwnaang's specific community consultation process, and directly with Aamjiwnaang as set out in their Consultation Protocol. All results from the JAC process and Aamjiwnaang Consultation Protocol process will be fully

considered and where appropriate, will inform and influence the implementation of the Project. Additionally, NextEra will implement all mitigation and monitoring as described in the Project REA Table 1 reports. Finally, NextEra will implement the systems to receive and resolve issues that may be raised during construction and operation of the Project as described in Section 6, "Next Steps", below.

#### 4.2 Chippewas of Kettle and Stony Point

Communications and information sharing with Chippewas of Kettle and Stony Point First Nation ("Kettle and Stony Point") began in 2008 for the Goshen project. Please see Appendix H.2 for a complete chronology of all communications concerning the five projects of interest to Kettle and Stony, including Goshen.

All requisite delivery of REA notices and information have been completed, as more specifically set out in Table 3.1.1, above.

NextEra's first "Community Reference Materials" binder was delivered to Aamjiwnaang at a meeting with Aamjiwnaang staff on June 15, 2010. The binder was developed as a handy reference guide for Aboriginal community staff. It included a map of all Ontario projects, including Goshen, the Goshen Project Description Report and general industry and company information. This information was delivered at a meeting with Kettle and Stony Point leadership and staff on June 7, 2010. The binder was updated and delivered to Kettle and Stony Point staff November 10, 2011. It included an updated web site address to obtain Project information and draft Project REA Table 1 reports.

The June 7, 2010 meeting was in direct response to information received from the independent First Nations Archaeological monitor, Brandy George of Brandy George Cultural Research Inc. As a member of Kettle and Stony Point, and in her monitor role reporting to Kettle and Stony Point leadership, Ms. George had been made aware of potential issues of interest to Chief Liz Cloud. On June 7, 2010, NextEra met with Chief Cloud and two Council environment portfolio holders. Through that discussion, it was determined that many of the issues of interest related to an existing wind farm owned by SkyGen, located immediately

adjacent to Kettle and Stony Point community. Other issues were identified, however, that related to this Project and potential impacts to the natural environment. These issues were sent to NextEra's environmental consultants to be considered as part of their preparation of the draft Project REA Table 1 Reports. A "Table of Concordance" describing these issues/questions and cross-referencing them to sections of the relevant reports that address them is set out in Appendix G.1. NextEra believes these issues have been addressed in the draft Project REA Table 1 Reports.

In November 2010, Kettle and Stony Point created a staff role with responsibility for consultation. NextEra contacted the new Communications Relations Officer ("CRO") in December 2010, provided overview information of all NextEra projects and offered to arrange a meeting to discuss all projects of interest to Kettle and Stony Point. A number of follow-up offers to meet were sent and a meeting with the CRO, First Nation Manager and Council Environment Committee took place on July 19, 2011. NextEra gave a presentation on all Ontario projects with a specific focus on the five projects of direct interest to Kettle and Stony Point. Issues raised at that meeting which could not be answered at that time were also sent to NextEra's environmental consultant, to be addressed as part of the REA Table 1 Report studies. They have also been included in the Table of Concordance set out in Appendix G.1.

A follow-up meeting was arranged with Kettle and Stony's CRO on November 10, 2011 to discuss current public open houses scheduled for various NextEra projects, and make plans for the anticipated release of draft Project REA Table 1 Reports in 2012. The updated copy of the Community Reference Materials binder was also delivered at that meeting. The CRO explained that Kettle and Stony Point had developed a draft Consultation and Accommodation Protocol, but it was not available for external distribution at that time. The possibility was discussed of Kettle and Stony Point taking part in a joint review of NextEra projects where its interests were coincident with Chippewas of Aamjiwnaang and Walpole Island First Nations, and the CRO was open to such a discussion. All three First Nations are included in Director's Lists for the same five NextEra wind projects, including Goshen.

Copies of the draft REA Table 1 Reports were delivered to Kettle and Stony Point on May 4, 2012 (See letter in Appendix I.2).

Kettle and Stony Point is participating in the First Nations Joint Assessment Committee ("JAC") with Walpole Island and Kettle and Stony Point First Nations. Please see section 4.1, above for a description of this process and status.

NextEra is also awaiting receipt of information from Kettle and Stony Point to develop a work plan and budget to implement their consultation process for the Project. It is expected that the results of the JAC reviewer's reports will inform the scope of the work plan.

As more fully explained in section 1.5 above, however, NextEra is confident that no adverse impacts to Constitutionally protected Aboriginal or treaty rights of Kettle and Stony Point, or significant negative environmental effects will result from approval of the Project. Consultation with Kettle and Stony Point is ongoing. NextEra will continue to work with Kettle and Stony Point using the results of the JAC review process to inform Kettle and Stony Point's Consultation Protocol, and will work directly with them to follow through on their Consultation Protocol process. All results from the JAC process and Kettle and Stony Point Consultation Protocol process will be fully considered and where appropriate will inform and influence the implementation of the Project. Additionally, NextEra will implement all mitigation and monitoring as described in the Project REA Table 1 Reports. Finally, NextEra will implement the systems to receive and resolve issues that may be raised during construction and operation of the Project as described in Section 6, "Next Steps", below.

#### 4.3 Chippewas of the Thames

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Communications and information sharing with Chippewas of the Thames First Nation ("COTTFN") began in 2007 for the Goshen project. While many attempts to follow-up and engage with COTTFN have taken place since then for five of NextEra's Ontario FIT Projects, community capacity limitations have meant that substantive engagement was only able to begin more recently. Please see Appendix H.3 for a complete chronology of all communications concerning the five projects of interest to COTTFN, including Goshen.

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All requisite delivery of REA notices and information have been completed, as set out in Table 3.1.1, above.

NextEra's first "Community Reference Materials" binder was delivered to COTTFN on June 7, 2010. The binder was developed as a handy reference guide for Aboriginal community staff. It included a map of all Ontario projects, including Goshen, the Goshen Project Description Report and general industry and company information. The binder was updated and delivered to COTTFN staff October 19, 2011. It included an updated web site address to obtain Project information and draft Project REA Table 1 reports.

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NextEra was able to meet directly with COTTFN staff on May 2, 2012, shortly after the formation of a COTTFN consultation team. An overview summary of all NextEra Ontario FIT projects was provided, together with a chart of key milestone dates for planning, such as anticipated delivery times for draft Project REA Table 1 Reports and REA filing targets to help describe the various projects and their status (See Appendix D). The NextEra First Nations and Métis Relationship Policy was also discussed; capacity assistance is one component of that Policy and was also discussed. NextEra had previously sent invitations for COTTFN to consider joining the JAC process that had been developed by Walpole, Aamjiwnaang and Kettle and Stony Point First Nations, called the Joint Assessment Committee, or "JAC". (The JAC is fully described in section 4.1, above.) This suggestion was discussed in more detail at the May 2 meeting. COTTFN has not replied to the invitation to participate in JAC and it seems unlikely they will participate before the process is completed.

COTTFN staff, did however, raise the following issues at the May 2, 2012 meeting.

COTTFN Question/Issue	Response Provided
Does the wind industry and/or Ministry of the Environment anticipate there will be cumulative effects from development of multiple wind farms?	Each project is evaluated on its own merits. MOE and MNR will not approve projects unless they are satisfied it will result in no unacceptable impacts.
	Monitoring programs are conducted to validate performance forecasts and effectiveness of mitigation; operating conditions may be varied in response to monitoring results.
	The JAC proposal to NextEra includes some work that may help address this question.
	NextEra will report COTTFN's question in its Aboriginal consultation report to MOE.
COTTFN explained there would be two significant events taking priority in the community in June. Consultations for the June 30, 2012 Big Bear Creek land claim negotiations, and a Truth and Reconciliation Event.	NextEra understands and respects COTTFNs community priorities and will cooperate to provide information about the Project in ways that meet COTTFN's needs.
COTTFN explained that subject to additional research, COTFN may have traditional territory that extends from outside the Haldimand Tract to Niagara. Based on project location mapping provided to COTTFN, the Summerhaven project may be of interest to COTTFN.	NextEra advised that Summerhaven was approved 2012-03-16 and forwarded a copy of the Director's List for Summerhaven. Arrangements were also made to deliver copies of the Summerhaven REA reports to COTTFN.

Copies of the draft Project REA Table 1 reports were delivered to COTTFN by letter dated May 4, 2012 (Appendix I.8).

On June 6, 2012, NextEra was advised that COTTFN had hired a new Renewable Energy Coordinator to have carriage of this file. NextEra responded the same day, offering to meet and review progress made to date. On July 30, 2012, NextEra spoke with the COTTFN Renewable Energy Coordinator and provided an update on the project. The possibility of COTTFN joining JAC was discussed and an offer to work directly with COTTFN was also offered, including discussing consultation process and capacity funding. No response to that offer has been received yet, and it is NextEra's understanding the Renewable Energy Coordinator role may be temporarily vacant due to lack of funding.

As of the date of this report, COTTFN has not indicated whether or not it may join the JAC process, but NextEra is prepared to meet and develop a COTTFN-specific review process for

Goshen and other NextEra projects in which COTTFN has an interest. All results from the JAC process and/or COTTFN process will be fully considered and where appropriate, will inform and influence the implementation of the Project. Additionally, NextEra will implement all mitigation and monitoring as described in the Project REA Table 1 Reports. Finally, NextEra will implement the systems to receive and resolve issues that may be raised during construction and operation of the Project as described in Section 6, "Next Steps", below.

#### 4.4 Haudenosaunee Confederacy Chiefs Council

The Haudenosaunee Confederacy Chiefs Council ("HCCC") is not identified on the Director's List for Goshen.

However, the HCCC is the traditional leadership of the Haudenosaunee people, whose ancestors were the members of the five original nations of the Iroquois Confederacy. As explained in section 1.5 (C), above the HCCC assert treaty rights pursuant to the 1701 Nanfan Treaty. NextEra has engaged with HCCC, with respect to their stated interest in potential negative effects from the Project, which in HCCC's view, could impact asserted treaty rights to hunt.

In Canada, the Oneida and Mohawk are represented within HCCC. NextEra has had direct communications with the Oneida Council of Chiefs about the Project, (see discussion within Section 4.5 Oneida Nation of the Thames). HCCC has delegated consultation process management to the Haudenosaunee Development Institute ("HDI"). NextEra's engagement with HCCC has been through senior HDI staff and Board members.

Communications and information sharing with HCCC began in 2007, primarily aimed at the closest project to the Six Nations community, Summerhaven. Delivery of REA notices and information for Goshen, however, has been completed with HCCC as more specifically set out in Table 3.1.1, above. In addition, NextEra's Community Reference materials binder has been provided to HDI. The binder was developed as a handy reference guide for Aboriginal community staff. It included a map of all Ontario projects, including Goshen, the Goshen Project Description Report and general industry and company information. An updated

Community Reference Material Binder was mailed to Hazel Hill, Acting Secretary of the HDI on October 13, 2011. It included an updated web site address to obtain Project information and draft Project REA Table 1 reports. A chart of all NextEra Ontario FIT projects was also delivered, outlining their capacity, location, timing of development and status. Please see Appendix H.4 for a complete chronology of the communications concerning the projects of potential interest to HCCC, focusing primarily on Goshen.

Given HCCC's asserted interest in all NextEra Ontario FIT projects, engagement has taken place at a general level with a focus on overarching issues of interest to HCCC. For the most part, HDI has requested that all matters of discussion with it be treated in confidence. As a result, NextEra is limited in the extent to which it can disclose the content of such discussions, but can report that such discussions are ongoing.

Copies of the draft Project REA Table 1 Reports were delivered to HCCC and HDI on May 4, 2012.

As a general conclusion, however, and as more fully explained in section 1.5, above, NextEra is confident that no adverse impacts to asserted Aboriginal or treaty rights of the Haudenosaunee will result from approval of the Project. Additionally, NextEra will implement all mitigation and monitoring as described in the Project REA Table 1 Reports. Finally, NextEra will implement the systems to receive and resolve issues that may be raised during construction and operation of the Project as described in Section 6, "Next Steps", below.

#### 4.5 Moravian of the Thames Delaware First Nation

Communications and information sharing with Moravian of the Thames Delaware First Nation ("Moravian") began in 2007 for the Goshen project. Please see Appendix H.9 for a complete chronology of all communications concerning the projects of potential interest to Moravian, including Goshen.

All requisite delivery of REA notices and information have been completed, as more specifically set out in Table 3.1.1, above.

On February 18, 2010, NextEra made contact with Chief Gregory Peters. Chief Peters stated that so long as there were no impacts to the Thames River, Moravian would have no concerns.

On June 14, 2010, NextEra contacted Chief Gregory Peters by telephone, to seek clarification on Moravian's interests NextEra Ontario FIT projects for which they had been included on Director's Lists, including Goshen. Chief Peters described the Moravian Traditional Territory as being about 58,000 acres, "town line to town line" extending northward into Zone Township and most of Orford Township, south to Highway 3. Zone Township is south of all NextEra Ontario FIT projects.

A written confirmation of the Moravian Traditional Territory has been requested many times, as recorded in the Chronology of Communications in Appendix H.5. NextEra made sure that Moravian received all requisite correspondence and notices required under Ontario Regulation 359/09, and any additional general communications from the company. For example, Moravian received the NextEra Community Reference Binder (which included the Goshen draft PDR) and update, as well as the Archaeological Communiqués.

On May 4, 2012, the draft Project REA Table 1 Reports were delivered to Moravian of the Thames. A number of follow-up e-mails and calls were made to confirm whether Moravian had any interests in the Project. In response, NextEra received a letter dated August 8, 2012 from Moravian's Lands and Consultations Manager, explaining, "The information sent regarding the above-mentioned project was reviewed and it was recognized that this project will not require any further consultation with the Moravian of the Thames First Nation." A copy of this letter is enclosed in Appendix J.2. On October 15, 2012 an e-mail was received from Moravian's Lands and Consultations Manager to confirm that they no longer felt a need to receive notices or project information about the current NextEra wind projects, which includes Goshen. A copy of this e-mail is included in Appendix J.3.

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#### 4.6 Munsee–Delaware First Nation

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Communications and information sharing with Munsee-Delaware First Nation ("Munsee") began in 2007 for the Goshen project. Please see Appendix H.6 for a complete chronology of all communications concerning the projects of potential interest to Munsee-Delaware, including Goshen.

All requisite delivery of REA notices and information has been completed, as more specifically set out in Table 3.1.1, above.

Chief Patrick Waddilove was provided (hand delivered) with NextEra's Community Reference materials binder on July 20, 2010. The binder was developed as a handy reference guide for Aboriginal community staff. It included a map of all Ontario projects, including Goshen, as well as general industry and company information. An updated Community Reference Material Binder was delivered to the First Nation Manager on October 19, 2011. It included an updated web site address to obtain Project information and draft Project REA Table 1 reports.

At the July 20, 2010 meeting with Chief Waddilove and the First Nation Manager, NextEra requested and was provided with information on issues that would be of concern to Munsee in the development of a wind farm. The issues included specific species, activities and values that would be of importance to Munsee members within their traditional territory. NextEra provided a summary of these issues to its environmental consultant, to be addressed in preparation of the draft REA Table 1 Reports. This information is included in the Munsee-Delaware "Table of Concordance" in Appendix G.3. The table lists the issues, NextEra's response and a cross-reference to the relevant section in the draft Project REA Table 1 reports.

Ongoing communications have taken place with Munsee in person, by e-mail and through delivery of the requisite REA notices and reports. An offer was made to discuss capacity assistance for review of all project reports, including Goshen.

On May 4, 2012, the draft Project REA Table 1 Reports were delivered to Munsee-Delaware First Nation.
No responses have been received from staff or leadership. Thus, no information has been provided to NextEra from Munsee-Delaware First Nation as to any concerns they may have about: potential adverse impacts of the Project to their constitutionally protected Aboriginal rights; potential negative impacts to the environment; or, any suggestions to mitigate such impacts.

As more fully explained in section 1.5, above, NextEra is confident that no adverse impacts to Constitutionally protected Aboriginal or treaty rights of Munsee-Delaware First Nation, or significant negative environmental effects will result from approval of the Project. NextEra will continue to communicate with Munsee, as with all other communities with potential interests in its projects. Additionally, NextEra will implement all mitigation and monitoring as described in the Project REA Table 1 reports. Finally, NextEra will implement the systems to receive and resolve issues that may be raised during construction and operation of the Project as described in Section 6, "Next Steps", below.

#### 4.7 Oneida Nation of the Thames and Oneida Council of Chiefs

Communications and information sharing with Oneida Nation of the Thames ("Oneida") began in 2007. Please see Appendix H.7 for a complete chronology of all communications concerning the projects of potential interest to Oneida, including Goshen.

All requisite delivery of REA notices and information has been completed, as more specifically set out in Table 3.1.1, above.

Oneida staff was provided (hand delivered) with NextEra's Community Reference materials binder on June 15, 2010. The binder was developed as a handy reference guide for Aboriginal community staff. It included a map of all Ontario projects, including Goshen, as well as general industry and company information. An updated Community Reference Material Binder was delivered to the Oneida Environment Officer on October 19, 2011. It included an updated web site address to obtain Project information and draft Project REA Table 1 reports.

NextEra has worked with Oneida staff and other Oneida leadership to identify a protocol for consultation on Goshen, and on other Ontario projects. Through e-mails and at meetings with Oneida staff and Alfred Day (now Chief Day) of the Oneida Council of Chiefs in 2010, it was originally established that the Oneida Council of Chiefs would take the lead on consultation matters related to the NextEra Bornish project, not Oneida Nation of the Thames. Given that Goshen is west of Bornish (i.e. further away from the Six Nations community where Six nations Confederacy Council is based), NextEra believed the same protocol and issues would apply to Goshen.

A letter dated March 3, 2010 was received from Howard Elijah, Secretary of Oneida Council of Chiefs confirming this approach. It stated, *inter alia*:

Thank you for notifying us of your intention to propose the construction of a facility to generate electricity through wind power. We strongly support the principle of using sustainable energy sources, and recognize your proposal is consistent with our views of conservation and respect for the natural world.

The Oneida Nation Council of Chiefs is communicating with you about this proposal on behalf of the Haudenosaunee (the Iroquois Confederacy). In doing so, we are supported by the elected council of the Oneida Nation of the Thames. We intend to ensure there is no confusion about our authority to work with you, and that you will not be required to duplicate your efforts with other Haudenosaunee communities or governments.

(See copy of letter in Appendix J.4.)

NextEra responded to that letter on June 3, 2010, asking for clarification of which Haudenosaunee communities the Oneida Council of Chiefs would speak for and for which NextEra projects, including Goshen. (See copy in Appendix J.5). No reply was received.

More recent correspondence dated March 12, 2012 from Chief Alfred Day on behalf of Oneida Council of Chiefs about another NextEra project, the Conestogo Wind Energy Centre, instructed that "all invitations" and matters" should be directed to the Haudenosaunee Development Institute ("HDI"), as Oneida Council of Chiefs is a participant in the HDI process. This is further reinforced by correspondence addressed to Doris Dumais, Director Approvals at Ministry of Environment, dated September 30, 2011, confirming HDI as the duly authorized representative for HCCC in consultation matters.

As explained above, Oneida Council of Chiefs is a participant in the HDI process. HDI have been delegated consultation matters as the staff secretariat to the Haudenosaunee Confederacy Council of Chiefs. Neither Oneida Council of Chiefs, nor Haudenosaunee Confederacy Chiefs Council are included on the Director's Lists for the Project, however, it is NextEra's understanding that both councils assert treaty rights under the 1701 Nanfan Treaty. The nature of these rights was explained in section 1.5 (C) and Table 2.2.1, above. Given the previous advice that Oneida Council of Chiefs would take the lead on certain projects, not Oneida, there has been uncertainty on the nature of Oneida's interest, or role, in regard to the Project. For greater certainty, all required Project correspondence and information required under the REA has been addressed individually to both of the Oneida Council of Chiefs, and Oneida (i.e. Oneida Nation of the Thames).

Clarification of Oneida vs. Oneida Council of Chief's role for the Project was requested from Oneida staff at a meeting of October 19, 2011. Staff's follow-up e-mail of October 26, 2011 confirmed that Oneida wished to meet NextEra about Goshen and four other projects, and they will require capacity assistance to review the draft REA Table 1 documents. A subsequent November 25, 2011 e-mail was then received indicating that NextEra did not have to meet with Oneida and referring them to the Oneida Council of Chiefs for those projects.

A meeting took place with the Oneida Nation of the Thames elected Chief Joel Abram on August 30, 2012 to discuss the NextEra projects of interest to Oneida. NextEra's understanding is that Oneida elected council is primarily focused on matters of service delivery for the Oneida of the Thames Community, while Oneida Council of Chiefs are concerned with rights and treaty issues. Chief Abram further confirmed that NextEra should continue its practice of providing Project information to leadership with copies to Oneida staff.

E-mail follow-ups, personal meetings and telephone calls have taken place with Oneida staff requesting responses to the Project information and draft Project REA Table 1 Reports that have been delivered. NextEra has offered to discuss capacity assistance for review of Project

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information in accordance with its First Nation and Métis Relationship Policy. No response has been received to date for those communications.

No information has been provided from staff or leadership as to any concerns Oneida may have about: potential adverse impacts of the Project to their constitutionally protected Aboriginal or treaty rights; potential negative impacts to the environment; or, any suggestions to mitigate such impacts.

The Oneida Council of Chiefs letter dated March 3, 2010 did, however, describe their view of a potential impact to treaty rights. Specifically, the letter stated:

The location of your proposed facility [assumed to be Bornish, but not specified in the letter] is within the territory that is set apart for the Haudenosaunee pursuant the Treaty at Albany in 1701. We view that Treaty, with its subsequent clarifications and reaffirmations in 1726 and 1755, as setting apart the area as one in which the Haudenosaunee would conduct what today would be called economic activities.

To the extent that your proposed project takes up the land with the approval of the Crown, we believe the Haudenosaunee have the right, by Treaty, to participate appropriately in the benefits that result. We look forward to a pragmatic and mutually beneficial relationship.

(See copy of letter in Appendix J.4)

The letter was copied to the (then) Ministry of Energy and Infrastructure, Ministry of the Environment and Ministry of Aboriginal Affairs. NextEra responded to that letter on June 3, 2010, asking for clarification of what economic activities the Oneida Council of Chiefs felt would be interfered with (See copy in Appendix J.5). No response was received.

As more fully explained in section 1.5, above, NextEra is confident that no adverse impacts to Constitutionally protected Aboriginal or treaty rights of Oneida Nation of the Thames, or significant residual negative environmental effects will result from approval of the Project. Lands where the Project is situated are privately owned, and NextEra is not aware of any Haudenosaunee economic activities that currently occur there.

NextEra will continue to communicate with Oneida, and with Oneida Council of Chiefs, as with all other communities with potential interests in its projects. Additionally, NextEra will implement all mitigation and monitoring as described in the Project REA Table 1 reports.

Finally, NextEra will implement the systems to receive and resolve issues that may be raised during construction and operation of the Project as described in Section 6, "Next Steps", below.

#### 4.8 Six Nations of the Grand River Elected Council

Six Nations of the Grand River Elected Council ("SNEC") are not included on the Director's List for Goshen, but NextEra has engaged with them as explained below.

Communications and information sharing with SNEC began in 2007 with the offer of holding a community open house about NextEra's southwestern Ontario projects. Please see Appendix H.8 for a complete chronology of all communications concerning the projects of potential interest to SNEC, including Goshen.

All requisite delivery of REA notices and information has been completed, as more specifically set out in Table 3.1.1, above.

In January 2008, NextEra made a presentation to SNEC on its southwestern Ontario FIT projects, including Goshen. While the focus on most communications with SNEC from 2008 through 2011 was on Conestogo (west of Haldimand Tract), Summerhaven (west of Halidmand Tract and closest to Six Nations of the Grand River community), Bornish and Adelaide, SNEC assert their responsibility to protect the air, land and waters within the 1701 Nanfan Treaty area, which encompasses all NextEra projects. This assertion is made in the Six Nations Elected Council Consultation and Accommodation Policy, which can be found in Appendix F.2.

Wind power projects are considered "special projects" within the SNEC Policy and as a result SNEC follows a process that includes both consultation and accommodation. Since the SNEC Policy was new in 2010, there was some discussion in June of that year as to whether, and how NextEra's projects would fall under the Policy. In September 2010 SNEC determined that it wished to review available REA reports for the NextEra projects and in November 2010 SNEC was provided with capacity funding they requested to complete

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reviews of the four projects, which had been their main focus. This approach has set a template to follow for review of Goshen by SNEC.

NextEra's first "Community Reference Materials" binder was delivered to SNEC on June 4, 2010. The binder was developed as a handy reference guide for Aboriginal community staff. It included a map of all Ontario projects, including Goshen, the Goshen Project Description Report and general industry and company information. An updated Community Reference Material Binder was delivered to SNEC Consultation and Accommodation Process Team ("CAP Team") staff at a meeting on October 17, 2011. Another presentation on all NextEra Ontario FIT Projects was given at that meeting, which detailed current status of each project.

NextEra also provided a project "booth" at the Six Nations of the Grand River Community Awareness Day in 2010 and 2011. Information on current projects was made available in 2010, and the 2011 information focused on archaeology work for the Summerhaven project, which is the closest NextEra project location to the Six Nations of the Grand River Reserve and the Haldimand Tract.

In January 2012, NextEra received draft proposed Capacity Funding Agreements from SNEC for the four project mentioned above, namely: Summerhaven, Conestogo, Adelaide and Bornish. NextEra responded on January 31, 2012, with a copy of its First Nations and Métis Relationship Policy because much of the policy spoke to the same issues dealt with in the proposed capacity funding agreements. NextEra's preference was, however, to approach all projects of stated interest to SNEC on a comprehensive basis. An initial meeting took place at Ohsweken with the SNEC CAP Team on February 1, 2012 to discuss the capacity funding agreements and NextEra's proposed approach. Due to SNEC CAP Team priorities with a more immediate and proximate large-scale renewable energy development, a follow-up meeting was not possible until May 7, 2012. Meetings on May 24 and June 19, 2012 aimed at reaching agreement on a work plan, budget and broader relations for all NextEra projects have also taken place. As of writing this report, follow-up to these meetings is ongoing. NextEra and SNEC continue to work on these agreements.

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As more fully explained in section 1.5, above, NextEra is confident that no adverse impacts to Constitutionally protected Aboriginal or treaty rights of the Six Nations of the Grand River, or significant negative environmental effects will result from approval of the Project. NextEra will use good faith efforts to complete the work plan and budget to facilitate SNEC's review and engagement for the Project. Any specific concerns will be addressed with SNEC and mutually acceptable mitigation explored. Additionally, NextEra will implement all mitigation and monitoring as described in the Project REA Table 1 reports. Finally, NextEra will implement the systems to receive and resolve issues that may be raised during construction and operation of the Project as described in Section 6, "Next Steps", below.

#### 4.9 Walpole Island First Nation

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Communications and information sharing with Walpole Island First Nation ("Walpole") began in 2007 for the Goshen project. Please see Appendix H.9 for a complete chronology of all communications concerning the five projects of interest to Walpole, including Goshen.

All requisite delivery of REA notices and information has been completed, as more specifically set out in Table 3.1.1, above.

NextEra's first "Community Reference Materials" binder was delivered to Walpole at a meeting with at a meeting with Walpole Heritage Centre and Economic Development Department staff on June 7, 2010. The binder was developed as a handy reference guide for Aboriginal community staff. It included a map of all Ontario projects, including Goshen, as well as general industry and company information. The update included a new web site address to obtain Project information and draft Project REA Table 1 reports.

Communications through correspondence, statutory notices, e-mails, telephone and personal meetings with Walpole leadership and staff have been an ongoing and frequent effort, which reflects that five of Next Era's projects are of interest to them. Primary contact and dialogue has been with staff of the Walpole Heritage Centre, which includes a Renewable Energy Coordinator role. Walpole's former wind energy consultant, and staff from Economic

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Development and Employment and Training have also been involved at various times to discuss questions and issues of specific interest to their mandates.

Walpole staff has been consistent in the general issues they raised during discussions with NextEra. These issues are as applicable to Goshen as they are to any projects; whether proposed by NextEra, or other wind developers. These issues were provided to NextEra's environmental consultants to be addressed during the preparation of the draft REA Table 1 Reports. A Table of Concordance detailing these issues, NextEra's response and the corresponding cross-reference in the draft REA Table 1 Reports is included in Appendix G.4. NextEra believes these issues have been addressed in the draft Project REA Table 1 Reports.

Three overarching	themes within	Walpole's	issues and	identified	values are,	as follows:

Walpole Question/Issue	Response Provided
Does the wind industry and/or Ministry of the Environment anticipate there will be cumulative effects from development of multiple wind farms?	Although each project is evaluated on its own merits, NextEra does not believe that there are cumulative impacts associated with the development of multiple wind farms. To the extent that Ontario's wind power developments are replacing fossil fuel generation, there may be a net environmental benefit from Ontario's wind power development.
	At the individual project level, MOE and MNR will not approve projects unless they are satisfied it will result in no unacceptable impacts. The JAC proposal to NextEra includes some work that may help address this question.
	NextEra will report Walpole's question in its Aboriginal consultation report to MOE.
How will an Aboriginal community be better off, after development of a wind farm, than before?	NextEra is engaging with Walpole including exploring opportunities for a broader relationship, in accordance with its First Nation and Métis Relationship Policy.
	NextEra is working collaboratively with the First nations "Joint Assessment Committee", of which Walpole is a member, to identify issues of potential interest and explore mutually acceptable solutions.
	NextEra is initiating an "Opportunities Outreach" program for communities with interests in its projects. The program will provide information on: employment, procurement with NextEra and the industry; scholarship programs; and, steps to pursue them.

Walpole Question/Issue	Response Provided
Walpole Question/Issue Walpole prefers a precautionary and an adaptive management approach to potential environmental impacts. Initiatives to increase habitat, restoring SAAR or adopting new wind energy technology (such as radar) as it is developed should be considered.	Response Provided NextEra is open to discussing environmental initiatives as part of a broader relationship. NextEra uses information from existing extensive operations to inform planning, design and operations across its system. Any variances from acceptable operating conditions are promptly addressed. NextEra has established technical review committees to monitor and address avian issues and implemented post-construction studies to gather more information on the effects of wind on wildlife, including six independent studies at operating wind farms in 2003- 2004. NextEra has also joined a group called the Bat and Wind Energy Cooperative (BWEC). Others in this
	group include the American Wind Energy Association, Bat Conservation International, the Department of Energy National Renewable Energy Laboratory and the U.S. Fish and Wildlife Service. The goal of this three-year collaborative effort is to develop methods to reduce impacts of wind turbines to bat species.

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Walpole is participating in the First Nations Joint Assessment Committee ("JAC") with Aamjiwnaang and Kettle and Stony Point First Nations. The JAC will jointly review five NextEra projects, including Goshen, of common interest to the three First Nations. The results of that review will inform each individual First Nation's own Consultation process. NextEra will work with Walpole to follow-through their consultation process. Please see the full explanation of the JAC process and objectives, which is described in the Aamjiwnaang First Nation summary in section 4.1, above, which is also applicable to this Walpole consultation summary.

Walpole has provided a proposed capacity funding budget and work plan to NextEra, to implement the Walpole consultation process for the Project, and for Walpole's administrative responsibilities for the JAC. In principle, NextEra is in agreement with this proposal, but a specific agreement to formalize it and finalize the budget has not yet been tabled by NextEra. This is anticipated to be done very early in 2013. It is expected that the results of the JAC reviewer's reports will inform the final scope of the work plan. A copy of Walpole's Consultation Protocol is included in Appendix F.3.

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As more fully explained in section 1.5, above, NextEra is confident that no adverse impacts to Constitutionally protected Aboriginal or treaty rights of Walpole Island First Nation, or significant negative environmental effects will result from approval of the Project. Consultation with Walpole is ongoing. NextEra will continue to work with Walpole using the results of the JAC review process to inform Walpole's Consultation Protocol, and directly with Walpole to follow through on their Consultation Protocol. All results from the JAC process and Aamjiwnaang Consultation Protocol process will be fully considered and where appropriate, will inform and influence the implementation of the Project. Additionally, NextEra will implement all mitigation and monitoring as described in the Project REA Table 1 reports. Finally, NextEra will implement the systems to receive and resolve issues that may be raised during construction and operation of the Project as described in Section 6, "Next Steps", below.

#### 4.10 Historic Saugeen Métis

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Communications and information sharing with Historic Saugeen Métis ("HSM") began in 2009. Please see Appendix H.10 for a complete chronology of all communications concerning the projects of potential interest to HSM, including Goshen.

All requisite delivery of REA notices and information have been completed, as more specifically set out in Table 3.1.1, above.

HSM was formerly a Community Council of the Métis Nation of Ontario ("MNO"). While MNO assert traditional harvest territory in Ontario, it is north of the Goshen project location. Additionally, e-mail correspondence from the Office of the Federal Interlocutor (now the Métis and Non-Status Indian Relations Directorate) placed HSM's traditional territory well north of the Project because HSM had not responded to requests to clarify its traditional territory assertions. NextEra understands that since leaving MNO, HSM assert their traditional territory extends south to the Port Franks area, which is consistent with HSM's understanding of its collective community rights. While HSM acknowledges that it's right to harvest was

given up when it withdrew from Métis Nation of Ontario<sup>2</sup>, it was recognized by the Province of Ontario in the April 8, 2011 Director's List for Goshen as an Aboriginal community that has or may have constitutionally protected Aboriginal rights that may be affected by the Project, and as such, is a community to be consulted for the Project.

Throughout the period of consultation with HSM, NextEra has provided HSM with all general communications provided to other interested Aboriginal communities, such as Archaeological Communiqués, and distribution of project schedule milestones for planning purposes. This is in addition to the requisite notices and deliveries required under Ontario Regulation 359/09.

Information-sharing specific to the Goshen project began in June 2010. HSM was one of three Aboriginal communities that accepted an invitation to be NextEra's guest at a CanWEA seminar in Toronto, titled "Opportunities in the Wind Energy Value Chain". At the meeting, HSM's consultation coordinator was provided with a copy of NextEra's Community Reference materials binder on June 9, 2010, which included: a map of all NextEra FIT projects locations in southern Ontario; general wind technology and industry information; contacts and web site addresses; and, a draft copy of the Goshen PDR.

At HSM's request, NextEra met with HSM Council and staff on August 11, 2010 to discuss all NextEra projects of interest to HSM in more detail. Bluewater, Goshen, Jericho and East Durham, were still in the pre-REA study phase at that time. HSM outlined their main concern as being any project which has the potential to negatively impact the traditional HSM territory, asserted to be comprised of the Sauble, Saugeen, Maitland, Bayfield and Ausable watersheds from Port Franks to Tobermory. On August 8, 2010 HSM's consultation coordinator followed up with a list of Métis interests that NextEra provided to its environmental consultants to be addressed as part of the draft REA Table 1 Reports, scheduled for 2011-12. This list of issues (or Métis values) is reproduced in Appendix G.5, as a Table of Concordance to demonstrate how NextEra feels the issues have been addressed in the REA studies and to cross-reference the applicable report and section. The schedule for

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<sup>&</sup>lt;sup>2</sup> Proceedings of the Senate Standing Committee on Aboriginal Peoples, Issue 21, Evidence - June 13, 2012, testimony of Patsy McArthur in response to Senator Dennis Glen Patterson, Acting Chair.

completion of the Project REA studies was explained to HSM's consultation coordinator in an e-mail of September 15, 2010, to provide assurance that the issues would be addressed at a later time, as those studies and reports were developed.

In October 2010, HSM sent a detailed list of questions concerning the Project to NextEra on a privileged and confidential basis. Many questions required additional discussion and clarification from HSM, which was sought at a meeting held February 18, 2011. NextEra's environmental consultant, AECOM, attended the meeting to provide additional input. It was decided that HSM would restate some questions for clarity and NextEra was to address those that it could as information became available during the REA Table 1 Report process. HSM provided further clarification regarding some of its issues on February 22, 2011 and these were also forwarded to the environmental consultant. NextEra also feels these issues have been addressed in the draft Project REA Table 1 Reports, as set out in Appendix G.5 Table of Concordance. NextEra feels it has now responded to most of the HSM "Goshen questions" in its draft Project REA Table 1 Reports, except those for which a clarification was not received from HSM. Further discussion and resolution of these questions is considered to be part of the ongoing consultation process planned with HSM.

HSM has also sought to enter into a long-term relationship agreement and Memorandum of Understanding ("MOU") for capacity funding and community benefits with NextEra. NextEra received a draft MOU from HSM, including long-term relationship commitments, on July 29, 2011 and a proposed supporting budget was received from HSM on February 17, 2012. NextEra has provided HSM with a copy of its First Nation and Métis Relationship Policy, as it addresses both the relationship and capacity assistance aspect of HSM's documents. Negotiations have taken place aimed at reaching agreement on consultation process and capacity funding. While no agreement has been reached yet, negotiations continue. To date, HSM has been disinclined to accept capacity funding for technical review prior to a comprehensive funding agreement being in place. It is NextEra's intention to continue such negotiations seeking a mutually acceptable agreement with HSM.

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As more fully explained in section 1.5, above, however, NextEra is confident that no adverse impacts to Constitutionally protected Aboriginal rights of the Historic Saugeen Métis, or significant negative environmental effects will result from approval of the Project. NextEra will use good faith efforts to complete the final agreement and budget to facilitate HSM's review and engagement for the Project. Any specific concerns brought forward to NextEra by HSM will be addressed with HSM and mutually acceptable solutions will be explored. Additionally, NextEra will implement all mitigation and monitoring as described in the Project REA Table 1 reports. Finally, NextEra will implement the systems to receive and resolve issues that may be raised during construction and operation of the Project as described in Section 6, "Next Steps", below.

#### 4.11 Summary of changes as a result of consultation activities

As of the writing of this report, NextEra has received no information from Aboriginal communities concerning potential impacts to constitutionally protected Aboriginal rights, or potential negative impacts to the environment that have required a change in the design or proposed construction and operation of the Project.

### 4.12 Summary of Out of Scope Input Received

While not part of the mandated inquiries set out under Ontario Regulation 359/09, a number of communities brought issues to NextEra's attention during discussions about Goshen and other projects. In the interest of providing a complete report of the scope of issues raised by communities, NextEra wishes to include the following list of recurring themes raised by Aboriginal communities.

1. Will wind farm development have regional or cumulative effects, and is an Ontario Ministry (such as Ministry of the Environment and/or Ministry of Natural Resources) considering this question? 2. What are the opportunities for Aboriginal communities to participate in wind projects that will result in economic and business benefits to them?

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- 3. Will NextEra entertain or facilitate equity participation by Aboriginal communities, beyond the programs offered through the Ontario Finance Authority?
- 4. Improving educational opportunities and services in Aboriginal communities should be a priority for any benefits that flow from renewable energy projects.

Wherever possible, NextEra responds to these questions directly with Aboriginal communities, within the scope of its First Nation and Métis Relationship Policy.

### 5. Conclusion

NextEra has undertaken a thorough Aboriginal consultation program for the Project and this dialogue is ongoing. The steps and information distribution required under Ontario Regulation 359/09 have been completed as described in this report.

No impacts to constitutionally protected Aboriginal or treaty rights have been brought to NextEra's attention to date that required a change in the design, construction or operation of the Project as proposed. Any other issues of concern raised over potential negative environmental impacts have been, or will be addressed as described in this report or through Project mitigation and monitoring, as explained in section 1.5, above.

NextEra has sited its Project appropriately. This is shown in the results of the Project REA Table 1 Reports and claims analysis which conclude that the Project will not result in any residual environmental impacts that may affect Constitutionally protected Aboriginal or treaty rights or Aboriginal interests in potential environmental effects.

As explained in section 4, NextEra has offered to negotiate capacity arrangements with a number of communities who wish to have involvement or communications during the construction and post-construction monitoring to provide additional assurance to the REA conclusions.

Other issues brought to the attention of NextEra that fall outside the scope of Ontario Regulation 359/09 are explained in section 4.12, including NextEra's response.

Communication and information exchange with Aboriginal communities will continue through the construction and monitoring phase of the Project, and into operations, as explained in Section 6, "Next Steps". Using the management systems, described therein, for receiving and resolving any unexpected issues of concern, will ensure that Aboriginal interests will continue to be unaffected by the Project.

### 6. Next Steps

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This section describes NextEra's approach to ensure ongoing communication and dialogue going forward, and its undertakings to ensure no adverse impacts to Aboriginal or treaty rights, or to environmental features of concern to Aboriginal communities will occur during construction and operation of the Project.

- NextEra will implement the construction mitigation as required and as set out in the final Project Table 1 Reports, in particular, the Archaeology reports, Construction Plan Report, Design and Operations Report, the Decommissioning Report and the Natural Heritage Report as submitted to the Director of Renewable Energy Approvals under Ontario Regulation 359/09, including any required monitoring and follow-up.
- 2. NextEra will consider and implement site-specific mitigation that may be mutually agreed to with Aboriginal communities as a result of their review of the draft Project REA Table 1 Reports.
- 3. To provide further assurance to Aboriginal communities in regard to the conclusions reached in the Project REA Table 1 Reports that there will be no significant environmental impacts, NextEra will explore the possibility of Aboriginal environmental field monitors and/or environmental liaison committees that would be a vehicle for ongoing communication during construction and post-construction monitoring. These steps could provide additional certainty to the affected Aboriginal communities that the required mitigation is implemented and effective. This may be through the communities themselves, Aboriginal contractors, or possibly through Provincial Territorial, Tribal Council or another collective organization with an appropriate relationship to the communities for this Project. Discussions of the methodology have already begun with interested communities. The mandate of the monitors or committee would be to view and report on the implementation of mitigation set out in the Project natural heritage study report, and make suggestions

where improvements are possible. This concept will be explored further with those Aboriginal organizations and communities with an interest in the Project.

- 4. To provide further assurance to Aboriginal communities regarding the protection of archaeological resources, NextEra will ensure there is monitoring of construction activities that may be proximate to any Stage 3 or Stage 4 site at the Project, in addition to requiring buffer areas around them. These measures are fully described in the Construction Plan Report, Table 3-1.
- 5. NextEra will operate a management system approach to communicating with and to the tracking and resolving issues of concern brought to the attention of NextEra during construction and operations by Aboriginal communities. Should an Aboriginal community express an issue of concern with the Project activities, NextEra will have a formal system to receive, track and resolve such concerns as is required under Ontario Regulation 359/09, Table 1, section 4. The Design and Operations Report, section 5, (page 15) contains a complete description of the emergency response, ongoing communications plan and complaint resolution process to be implemented for this Project. Information about this system will be shared with Aboriginal communities prior to construction.
- 6. NextEra will maintain ongoing general communications with Aboriginal communities through the construction and operating phase of its project as one element of its ongoing community, municipal and landowner communications program. In addition to contact with leadership and/or key staff, and where practicable, local Aboriginal community newsletters, web sites or other communication vehicles will be used to convey relevant project notices and updates, as may be agreed to by the Aboriginal communities. Anticipated topics may include Project schedule updates, reports on Project activities and on the effectiveness of environmental mitigation. Details of the content of this program, frequency of updates and communication vehicles will be discussed with Aboriginal communities who express interest in receiving such information.

Aboriginal Consultation Report for Goshen Wind Energy Centre

As of: January 11, 2013 (v. 1.3)

7. It is recognized that some Aboriginal communities have provided no specific information about project-related concerns. NextEra undertakes to implement any necessary mitigation measures identified the final REA documents and Project. Table 1 Reports. These measures will result in no significant long-term environmental impacts by the Project, and therefore, no significant long-term impacts to species, habitats or ecosystems that may be of concern to Aboriginal communities.

NextEra feels that these measures will provide additional assurance beyond the conclusions of the draft Project REA Table 1 Reports and consultation to date so that no constitutionally protected Aboriginal or treaty rights, or Aboriginal interests in the environment will be negatively impacted by the Project.

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# LIST OF APPENDICES

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Filed: 2013-04-03 Goshen Wind, Inc. Exhibit G Tab 1 Schedule 3 Pages: 58

### FINAL PUBLIC MEETING DOCUMENTS

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Appendix A7. Final Public Meeting -Municipalities of Bluewater and Huron East

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## NOTICE OF FINAL PUBLIC MEETING To be held by Goshen Wind, Inc. regarding a Proposal to Engage in a Renewable Energy Project

Project Name: Goshen Wind Energy Centre

Project Location: Bluewater and South Huron, Huron County, Ontario

Dated at the Municipality of Bluewater, South Huron and Huron County on October 10, 2012

Goshen Wind, Inc., a wholly owned subsidiary of NextEra Energy Canada, ULC, is planning to engage in a renewable energy project in respect of which the issuance of a renewable energy approval is required. The proposal to engage in the project and the project itself is subject to the provisions of the Environmental Protection Act (Act) Part V.0.1 and Ontario Regulation 359/09 (Regulation). This notice must be distributed in accordance with section 15 of the Regulation prior to an application being submitted and assessed for completeness by the Ministry of the Environment. The purpose of the meeting is to provide residents an opportunity to review and discuss the draft documentation related to the Project's Renewable Energy Approval application.

Public meetings will be held for the project on the following dates:

| DATE:  | January 9, 2013                     | DATE:  | January 10, 2013          |
|--------|-------------------------------------|--------|---------------------------|
| TIME:  | 5:00 p.m. to 8:00 p.m.              | TIME:  | 5:00 p.m. to 8:00 p.m.    |
| PLACE: | South Huron Recreation Centre       | PLACE: | Zurich Arena              |
|        | 94 Victoria Street East, Exeter, ON |        | 15 East Street, Zurich ON |

Please note that the meetings will be in an Open House format allowing attendees to visit any time during the event.

**Project Description:** Pursuant to the Act and Regulation, the facility, in respect of which this project is to be engaged in, is a Class 4 Wind Facility. If approved, this facility would have a total maximum name plate capacity of 102-megawatts (MW). The project location is described in **Figure 1**.

#### **Documents for Public Inspection:**

The Draft Project Description Report titled "Project Description Report – Goshen Wind Energy Centre" describes the project as consisting of up to 62 GE 1.6 and 1 GE 1.56 MW turbines, step-up padmount transformers, a transformer substation, electrical collection and transmission systems, turbine access roads, an operations building, meteorological towers and construction staging areas.

Goshen Wind, Inc. has prepared the following draft supporting documents in order to comply with the requirements of the Act and Regulation: Project Description Report; Construction Plan Report; Design and Operations Report; Decommissioning Plan Report; Wind Turbine Specifications Report; Natural Heritage Assessment Report; Water Assessment and Water Body Report; Stage 1 and 2 Archaeological Assessment Reports; Heritage Assessment Report; and Noise Study Report.

Written copies of these draft supporting documents will be available for public inspection starting on October 15, 2012 at <a href="http://www.NextEraEnergyCanada.com">www.NextEraEnergyCanada.com</a> and at the Bluewater, South Huron and Huron County Municipal Offices:

| Municipality of Bluewater | Municipality of South Huron |
|---------------------------|-----------------------------|
| 14 Mill Avenue, Box 250   | 322 Main Street South       |
| Zurich, Ontario N0M 2T0   | Exeter, Ontario N0M 1S6     |

Huron County 1 Courthouse Square Goderich, Ontario N7A 1M2

Written copies will also be available at the public open houses.

Comments received on or before <u>January 14. 2013</u> will be included in our Public Consultation report to the Ministry of the Environment. Should you wish to provide comments after this date, they can be forwarded directly to the Ministry of the Environment.

Project Contact and Information: To learn more about the project proposal, public meetings, or to communicate concerns please contact:

Derek Dudek, Community Relations Consultant NextEra Energy Canada, ULC 5500 North Service Road, Suite 205 Burlington, ON L7L 6W6 Phone: 1-877-257-7330

E-mail: Goshen.Wind@nexteraenergy.com Website: <u>www.NextEraEnergyCanada.com</u>



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#### COMMENT FORM

January 9 and 10, 2013

Your comments will be considered. We are collecting this information to help us understand and address your concerns about the Project. Comments will become part of the public record with the exception of personal information.

1. Did the information at the meeting meet your expectations?

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- Didn't speak to anyone
- Somewhat
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- 3. After attending the meeting, how do you feel about the Project?
  - Supportive
  - Undecided
  - Undecided and would like more information
  - **کر** Non supportive

Please explain and let us know what other information you would like to receive: 100 Know

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5. Please provide your comments or questions in the space provided below:

To learn more about the Project, or to send your completed comment form to us, please contact:

Derek Dudek Community Relations Consultant NextEra Energy Canada, ULC 390 Bay Street, Suite 1720 Toronto, Ontario M5H 2Y2

Toll Free: 1-877-257-7330 Email: Goshen.Wind@NextEraEnergy.com Website: www.NextEraEnergyCanada.com

I pray and hope this and other projects will discontinue completely. Shark you.



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1. Did the information at the meeting meet your expectations?

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- Supportive
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- Aboriginal interests
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Please explain: \_

#### 3. After attending the meeting, how do you feel about the Project?

- Supportive
- Undecided
- Undecided and would like more information
- Non supportive

Please explain and let us know what other information you would like to receive: \_

4. What topics would you like to learn more about? (check all that apply)

- Aboriginal interests
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(Specify)\_



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Toll Free: 1-877-257-7330 Email: Goshen.Wind@NextEraEnergy.com Website: www.NextEraEnergyCanada.com



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January 9 and 10, 2013

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1. Did, the information at the meeting meet your expectations?

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Please explain: \_

2. If you asked questions during the meeting did you get a satisfactory response?

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3. After attending the meeting, how do you feel about the Project?

- Ø Supportive
- Undecided
- Undecided and would like more information
- Non supportive

Please explain and let us know what other information you would like to receive: \_

4. What topics would you like to learn more about? (check all that apply)

- Aboriginal interests
- **Community Partnerships** Ø
- Socio-economic
- Environment
- Human Health
- Transmission **Project Details** Other

(Specify)\_



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Address:\_\_\_\_\_ City/Province:\_\_\_\_

Postal Co Email:

> Toll Free: 1-877-257-7330 Email: Goshen.Wind@NextEraEnergy.com Website: www.NextEraEnergyCanada.com



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To learn more about the Project, or to send your completed comment form to us, please contact:

#### Derek Dudek

τ,

Community Relations Consultant NextEra Energy Canada, ULC 390 Bay Street, Suite 1720 Toronto, Ontario M5H 2Y2 Toll Free: 1-877-257-7330 Email: Goshen.Wind@NextEraEnergy.com Website: www.NextEraEnergyCanada.com

4.



#### COMMENT FORM January 9 and 10, 2013

Your comments will be considered. We are collecting this information to help us understand and address your concerns about the Project. Comments will become part of the public record with the exception of personal information.

1. Did the information at the meeting meet your expectations?

Yes 

Q Somewhat

No Please explain: \_

2. If you asked questions during the meeting did you get a satisfactory response?

Yes

Didn't speak to anyone

Somewhat

No

Please explain: \_

3. After attending the meeting, how do you feel about the Project?

- Supportive
- Undecided
- Undecided and would like more information

区 Non supportive

Please explain and let us know what other information you would like to receive: \_\_\_

What topics would you like to learn more about? (check all that apply) 4.

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- Aboriginal interests
- Community Partnerships
- Socio-economic
  - Environment
- Human Health

Transmission **Project Details** Other

(Specify)\_
**Goshen Wind Energy Centre** 

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5. Please provide your comments or questions in the space provided below:

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If you would like to be kept informed about the status of the Goshen Wind Energy Project, please provide your contact information below. Name: Street Address City/Province: a in 1.25 Postal Code: Email:

To learn more about the Project, or to send your completed comment form to us, please contact:

Derek Dudek Community Relations Consultant NextEra Energy Canada, ULC 390 Bay Street, Suite 1720 Toronto, Ontario M5H 2Y2

Toll Free: 1-877-257-7330 Email: Goshen.Wind@NextEraEnergy.com Website: www.NextEraEnergyCanada.com

#### **Goshen Wind Energy Centre**



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1. Did the information at the meeting meet your expectations?

Yes
 Somewhat
 No
 Please explain: \_\_\_\_

2. If you asked questions during the meeting did you get a satisfactory response?

🛛 Yes

Didn't speak to anyone

Somewhat

No No

Please explain: .

3. After attending the meeting, how do you feel about the Project?

- Supportive
- Undecided
- Undecided and would like more information
- Non supportive

Please explain and let us know what other information you would like to receive:

 $\hat{\rho}$ 16 20 ko . ÷. min

4. What topics would you like to learn more about? (check all that apply)

| Aboriginal Interests |                | Community Partnerships |                 |  |
|----------------------|----------------|------------------------|-----------------|--|
|                      | Socio-economic | G                      | Transmission    |  |
| Û.                   | Environment    |                        | Project Details |  |
| <b>a</b>             | Human Health   |                        | Other           |  |
|                      |                |                        | (Specify)       |  |

**Goshen Wind Energy Centre** 



5. Please provide your comments or questions in the space provided below:

nn.  $\hat{}$ ÷. Ġ, ٠. Dr. If you would like to be kept informed about the status of the Goshen Wind Energy Project, please provide your contact information below/ Name: Street Address: City/Province: 32 A ፖንለ **Postal Code:** 24 Email: 100

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Derek Dudek Community Relations Consultant NextEra Energy Canada, ULC 390 Bay Street, Suite 1720 Toronto, Ontario M5H 2Y2

Toll Free: 1-877-257-7330 Email: Goshen.Wind@NextEraEnergy.com Website: <u>www.NextEraEnergyCanada.com</u>

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NextEra Energy Canada welcomes you to tonight's event.

#### We are here to:

- Present the final turbine and transmission line route layout for the Goshen Wind Energy Centre
- Describe project modifications since the submission of the draft reports
- Present field study findings and how we propose to address any effects
- ▲ Receive your comments
- Answer your questions
- ✓ Discuss draft reports



## A Leader in Clean Energy

NextEra Energy Canada is an indirect, wholly-owned subsidiary of NextEra Energy Resources. NextEra Energy Resources, LLC is the largest generator of wind energy in North America.

## NextEra Energy Canada

NextEra Energy Canada is a leading renewable energy developer in Canada focused on developing electricity derived from clean, renewable sources. Our Canadian operations are headquartered in Toronto, Ontario. We are the owner and operator of five wind energy projects and two solar energy projects in the following provinces:

- ▲ Quebec: Mount Copper and Mount Miller Wind Energy Centres
- Nova Scotia: Pubnico Point Wind Energy Centre
- ▲ Alberta: Ghost Pine Wind Energy Centre
- Ontario: Conestogo Wind Energy Centre and the Sombra and Moore Solar Energy Centres

NextEra Energy Canada is currently working toward approval of six wind energy centres in Ontario. We currently have two projects that received Renewable Energy Approval (REA), one which is operational and one under construction.

## NextEra Energy Resources

#### We are:

- The operator of over 100 wind projects in 19 states and four provinces with over 9,000 wind turbines providing over 10,000 megawatts of generation
- ★ The second largest global generator of renewable energy
- ★ The largest generator of both wind and solar power in North America operating wind energy facilities for over 24 years

## Did you know that NextEra Energy Resources...

- ⋆ Began developing renewable energy projects in 1989?
- → Has approximately 4,500 employees in North America?
- A Generates approximately 95% of its electricity from clean or renewable sources?









## Why is Southwestern Ontario considered a great choice for wind energy?

#### Wind developers favour Southwestern Ontario for two main reasons:

- 1. Strong and consistent wind levels, particularly around the Great Lakes
  - Wind data has been collected in the Project Study Area since 2007 measuring wind speeds at heights of 40 metres (131 feet), 50 metres (164 feet) and 60 metres (197 feet)
  - Wind speeds are viable for commercial wind energy generation
- 2. Available and adjacent electricity transmission
  - The region is well served by existing and planned transmission lines (such as Hydro One's Bruce to Milton line) that have available capacity to receive the electricity generated by the project





### Benefits of Wind Power

#### Environmental Compatibility

- ▲ Minimal greenhouse gas emissions
- ▲ Efficient and reliable
- ▲ Allows land to remain in agricultural use
- → Does not use water in power generation
- ▲ Low environmental impact
- ▲ Free, renewable energy source

#### Local Economic Benefits

- ➤ Provides new employment opportunities
- Adds tax base to the local municipalities
- Supports the economy through purchases of regional goods and services
- ▲ Estimated 8-10 local full time jobs
- ▲ 200-300 construction jobs
- A Delivers landowner lease payments
- Proposed Community Vibrancy Funds to support local initiatives

## Over the next 20 years, we estimate the project will contribute:

- ↓ \$166 million in corporate income tax
- ↓ \$3.3 million in property tax revenue
- ▲ \$21 million in landowner payments

#### **Price Stability**

- ▲ Decentralizes power production
- ▲ No fuel cost
- Electricity produced domestically



## Ontario's Renewable Energy Approval Process

- The Renewable Energy Approval (REA) process, outlined in Ontario Regulation 359/09, is a requirement for large wind power projects under Ontario's Green Energy Act
- NextEra Energy Canada will submit a Renewable Energy Approval application to the Ontario Ministry of the Environment (MOE) for each project
- The MOE will assess the application for completeness and then undertake a technical review to determine whether to issue an approval
- Other agencies, including the Ministry of Natural Resources (MNR), the Ministry of Transportation (MTO), the Ministry of Tourism, Culture and Sport (MTCS) and local conservation authorities and municipalities will provide input

### Reports included in application:

Reports were submitted in draft for public review on October 15, 2012

- Project Description Report to provide an overview of the project and a summary of all the required REA reports
- Archaeology and Cultural Heritage Assessment Reports to identify potential effects on archaeological and cultural heritage resources
- Natural Heritage Assessment Report to identify potential effects on birds, bats, other wildlife, woodlands, wetlands, areas of natural and scientific interest
- Noise Assessment Report to ensure the project is in compliance with noise regulations
- Water Body and Water Assessment Report to identify potential effects on streams, seepage areas and lakes
- Construction Plan, Design and Operations, Decommissioning Reports to describe these activities and identify mitigation measures to address any potential effects resulting from the various project phases
- Consultation Report to demonstrate how NextEra Energy Canada engaged local governments and Aboriginal groups, and the community, during the project
- Wind Turbine Specifications to describe the turbine technology selected for the project



## Renewable Energy in Ontario

#### The Green Energy and Green Economy Act

• Developed to stimulate the "green" economy in Ontario

### Key Components:

- Provincial obligation to purchase green energy
- Priority grid access for renewable energy projects
- Long-term fixed-price power contracts
- Coordinated regulatory and approvals process

## Provincial Green Energy Initiatives and the Feed-in-Tariff Program:



- Feed-in-Tariff (FIT) Program, launched by the Ontario Power Authority, is North America's first comprehensive guaranteed pricing structure for renewable electricity production
- The FIT Program offers stable prices and long-term contracts to green energy projects that encourage investment in renewable energy and economic development across the Province
- NextEra Energy Canada has six projects that were awarded FIT contracts on July 4, 2011:
  - ▲ Adelaide Wind Energy Centre
  - ▲ Bluewater Wind Energy Centre
  - ▲ Bornish Wind Energy Centre
  - ▲ East Durham Wind Energy Centre
  - ⋆ Goshen Wind Energy Centre
  - ⋆ Jericho Wind Energy Centre

We have two additional projects (Conestogo and Summerhaven Wind Energy Centres) which have been awarded a FIT contract by the Ontario Power Authority and have received the Renewable Energy Approval. The Conestogo Wind Energy Centre began commercial operation in December 2012. The Summerhaven Wind Energy Centre is anticipated to be in commercial operation the summer of 2013.



## Renewable Energy Approval Process





## The Goshen Project

- The proposed Goshen Wind Energy Centre project is located within the municipalities of Bluewater and South Huron in Huron County, Ontario.
- The project will be able to generate up to 102-megawatts of electricity, enough energy for nearly 25,500 homes in Ontario.
- Up to 62 1.6-megawatt turbines and one 1.56-megawatt turbine will be constructed; however, up to 72 turbines will be permitted through the Renewable Energy Approvals process.

Facility components for the Goshen Wind Energy Centre will include:

- ▲ Laydown and storage areas (including temporary staging areas, crane pads and turnaround areas surrounding each wind turbine);
- Temporary electrical service line for the purpose of providing power to the construction trailers located at the laydown area;
- A transformer substation;
- Underground 34.5 kV electrical collection lines to connect the turbines to the transformer substation and other ancillary equipment such as above-ground junction boxes;
- ▲ 115 kV transmission line to run from the transformer substation to a breaker switch station which will connect the electricity generated by the project to the existing Hydro One 115 kV transmission line;
- ▲ Turbine access roads;
- ★ Three permanent meteorological towers; and
- An operations and maintenance building including an electrical service line connected to the local distribution service.





## Modifications to the Project Since Circulation of Draft REA Reports

- 15 modifications have been made to the Project Location since the draft reports were circulated to address landowner requests. These include the following:
  - Realignment or relocation of the access roads to Turbines 5, 7, 23, 49, 66, 68, 75 and 77;
  - ▲ Realignment or relocation of the access roads to meteorological towers;
  - Realignment or relocation of the collection lines to Turbine 7 and between Turbines 36, 37 and 64; and
  - A Changes to the laydown areas for Turbine 4 and the substation.
- These modifications do not result in any new effects to those previously identified through the various studies conducted. Please see the Goshen Project Modifications Report for further information.





## Your Concerns... Our Response

#### Q: How loud are wind turbines?

A: With the evolution of modern wind turbine technology, the mechanical noise from the turbine is almost undetectable. Turbines only run when the wind is blowing and the sound of the wind masks most of the noise. What's more, wind projects in Ontario are under strict sound guidelines, as prescribed by the Ministry of the Environment. For residences in the area, the Goshen Wind Energy Centre will be quieter than many common sounds – such as a quiet room.

NextEra is committed to meeting the sound limit requirements set by the Ministry of the Environment. If concerns regarding sound level arise, we will investigate and, if necessary, remedy the situation as soon as possible.

## Q: This area is a stopping point for migrating Tundra Swans. Will you consider this when deciding where to put a wind turbine?

A: Yes, we continue to consult with local organizations to understand the swans' migration route and stopover areas. This information was considered, along with environmental, local infrastructure and socio-economic information, when determining where best to place a wind turbine.

#### Q: Do turbines pose a danger to area wildlife (e.g., birds or bats)?

A: When properly sited, wind turbines present less of a danger to wildlife than other structures such as buildings and roads. Turbines have been located as carefully as possible to minimize any effects on wildlife. NextEra Energy Canada has worked closely with the relevant experts to assess any potential effects on wildlife, including birds and bats.

#### Q: What impact do wind turbines have on our health?

A: NextEra takes concerns about human heath very seriously. Although much has been written about health effects associated with wind turbines, we have found no credible, scientifically peer-reviewed study that demonstrates a link between wind turbines and negative health effects. For more information, please review the Health and Wind Turbines information board.



### Your Concerns... Our Response

#### Q: What effect will a wind farm have on the value of my property?

A: Based on available research, we are not aware of any credible evidence to indicate a decline in property values from the siting of a wind farm. Independent studies have been conducted by Ontario municipalities, leading universities, and other entities which have concluded that the construction of a wind facility does not detract from property values.

#### Q: Do wind turbines cause stray voltage?

A: Stray voltage is a low-level current or shock (typically under 10 volts) that can be caused by improper grounding or, in some cases, an ungrounded electrical system. Stray voltage is not a consequence of wind energy. It may be present in any electrical distribution system regardless of source and may be especially prevalent on working farms because of the nature of these operations.

NextEra will adopt industry best practices at all times to minimize the risk of stray voltage and ensure our Wind Energy Centres are built and maintained within acceptable levels, as prescribed by the local safety code. While we do not intend to connect the Goshen Wind Energy Centre to the local distribution system that serves barns and houses in the area, we are aware that transmission lines – when not properly designed – can induce current on nearby distribution lines. To address this and to minimize the impact on local distribution customers, we are already working closely with Hydro One.

#### Q: Who pays to decommission the turbines?

A: Goshen Wind, Inc. is responsible for any decommissioning costs. The process to decommission the turbines has been established through the Renewable Energy Approval process, which specifies the need for a Decommissioning Plan. The community has an opportunity to provide input and comment on the plan that will be part of the application filed with the Ministry of the Environment.

For a complete list of comments and questions from the public, please visit the Frequently Asked Questions sections on our website. We will also publish concerns and inquiries in the Consultation Report, which will be filed with the REA documents and posted on our website.





## Aboriginal Consultation

- Canada's Constitution Act, 1982, recognizes the rights of Aboriginal peoples (First Nation, Inuit and Métis)
- Ontario Regulation 359/09 has specific requirements for Aboriginal consultation
- Ontario Power Authority's Feed in Tariff program reinforces the importance of Aboriginal consultation
- Project proponents are delegated the "procedural aspects" of Aboriginal consultation
- Aboriginal consultation may include environmental, archaeological, cultural and spiritual issues
- NextEra Energy Canada is working closely with Aboriginal communities and leadership as required by law and good practice to:
  - Offer meaningful information about its projects
  - Seek information that helps ensure good planning to avoid or minimize impacts
  - A Openly discuss issues, interests and concerns
  - Seek workable and mutually acceptable solutions
  - Foster relationships of mutual respect



### **Turbine Siting Process**

#### **Developing a Site Plan**

The following steps outline the process of developing a project site plan:

- 1. Identify a sufficient wind resource and study the wind regime for several consecutive years
- 2. Work with local landowners to option land for wind turbines and ancillary facilities (i.e. collection lines and access roads)
- 3. Identify technical and environmental constraints based on input from project engineers, ecologists and aquatic biologists, cultural experts, local landowners, Aboriginal groups, and government agencies
- 4. Identify locations to site project infrastructure by balancing these technical and environmental constraints while adhering to the setback distances prescribed by the Province (i.e., Ontario Regulation 359/09) as identified in **Table 1** below. Project components can be sited within the setbacks for some terrestrial features provided that an Environmental Impact Study is completed and mitigation measures identified.



#### Table 1. Turbine Siting Process Constraint Categories

 Note that other setback requirements may be applicable to the projects (e.g. aerodromes, pipelines, and Ministry of Transportation setbacks, etc.)



### **Turbine Siting Process**



Step 1: Work with local landowners to option land



Step 3: Identify aquatic constraints





A Step 2: Identify natural constraints



A Step 4: Identify local infrastructure constraints



→ Step 6: Site turbine within remaining land available





## **Construction Plan**

#### Turbine siting and surveys

- ★ Site preparation will include final turbine siting and surveys
- A During these surveys, boundaries of turbine sites will be staked and existing buried infrastructure will be located and marked

#### Access roads

- Municipal and Provincial roads will be used to transport equipment to the construction sites
- Minor modifications may be required to some of the existing roads (e.g. widening the turning radius) to transport equipment
- New access roads will typically be 11 m (36 feet) wide during the construction and operations phases
- ✓ No permanent paved roads will need to be constructed for the turbines
- Equipment will be delivered by truck and trailer as needed throughout the construction phase and stored at temporary laydown sites surrounding each turbine





## **Construction Plan**

#### **Electrical Collector System:**

- This system consists of a mixture of underground cables, pad mounted transformers and a substation
- ✤ Ploughing and trenching will be used to install the underground cables
- The cabling will be buried at a depth that will not interfere with normal agricultural practices and maps of cable locations will be provided to landowners

#### Wind Turbines:

- A Foundations will be made of poured concrete, reinforced with steel rebar to provide strength
- ★ Each foundation will require an excavation of approximately 3 metres (10 feet) deep, and 20 metres (66 feet) by 20 metres (66 feet) square
- A Only the tower base portion of the foundation will be left above ground
- ★ The turbine will then be anchored to the foundation by large bolts set in the concrete foundation
- ★ Turbine assembly and installation will typically require 4 5 days per turbine
- Following commissioning, the area surrounding the turbine will be returned to its pre-construction state

#### **Operations and Maintenance Building:**

- ★ This building will be used to monitor the day-to-day operations of the wind farm and maintenance effort. Preferably, an existing building will be obtained for this purpose; otherwise, a new building will be constructed on privately held lands
- Potable water will be supplied by a well or through the municipal water system and if required, a septic bed will be constructed for the disposal of sewage
- These elements will be constructed in accordance with applicable municipal and provincial standards





### **Operations and Maintenance**

NextEra Energy believes in "prevention" versus "event response" through component condition and performance assessment

- ★ Experienced operations and maintenance managers on site
- On-going training and mentoring programs to maintain safe and efficient operation
- ▲ Site staff supported by centralized maintenance and environmental staff
- ▲ Local operations team available to answer questions and address concerns





### Health and Wind Power

- Many studies have been conducted world-wide to examine the relationship between wind turbines and possible human health effects (e.g., audible/inaudible noise, shadow flicker, electromagnetic fields (EMF)).
- Audible / Inaudible Noise: Ontario's Chief Medical Officer of Health (May 2010) conducted a review of the scientific literature related to wind turbines and public health. The review concluded that:

"while some people living near wind turbines report symptoms such as dizziness, headaches, and sleep disturbance, the scientific evidence available to date does not demonstrate a direct causal link between wind turbine noise and adverse health effects. The sound level from wind turbines at common residential setbacks is not sufficient to cause hearing impairment or other direct health effects, although some people may find it annoying."

- Shadow flicker: Scientific evidence suggests that shadow flicker from wind turbines does not pose a risk of photo-induced seizures; modern wind turbines simply don't rotate at a speed that has been linked to this condition (generally less than 20 rpm vs. over 60 rpm).
- ★ EMF: Health Canada (2012) has stated:

"Health Canada does not consider that any precautionary measures are needed regarding daily exposures to EMFs at ELFs [extremely low frequency]. There is no conclusive evidence of any harm caused by exposures at levels found in Canadian homes and schools, including those located just outside the boundaries of power line corridors".

- Overall, health and medical agencies agree that when sited properly, wind turbines are not causally related to adverse effects\*.
- Reports of annoyance by people living around wind turbines appear to be more related to variables like personal attitude and whether a person can see a turbine from their home and not a turbine-specific variable like noise.

"Ontario doctors, nurses, and other health professionals support energy conservation combined with wind and solar power – to help us move away from coal"\*\*.

Scientists and medical experts around the world continue to publish research in this area. In fact, Health Canada will be undertaking a study of wind turbine projects across the country, with results expected in 2014. It is important to note that Health Canada has not called for a moratorium on new wind projects across Canada while they undertake their research. Through our health consultants, Intrinsik, NextEra Energy Canada is committed to keeping informed on this issue.

\*Chatham-Kent Public Health Unit, 2008; Australian Government, National Health and Medical Research Council, 2010; Australian Government, 2011; Massachusetts Department of Environmental Protection (MassDEP) and Massachusetts Department of Public Health (MDPH), 2012.

\*\*Ontario College of Family Physicians, Registered Nurses Association of Ontario, Canadian Association of Physicians for the Environment, Physicians for Global Survival, the Asthma Society of Canada, and the Lung Association.





### Effects Assessment

Potential effects were assessed based on the following:

- Archaeological sites;
- A Natural Heritage (e.g. birds, bats, wetlands etc.);
- ✓ Water Bodies;
- ➤ Cultural Heritage features;
- A Noise; and
- Shadow flicker.

The diagram below shows the process followed for the effects assessment:





## Archaeological Studies - Goshen Project

A Stage 1 Archaeological Assessment was conducted to establish if any known archaeological sites exist in or near the Project Location. Where the Stage 1 findings showed that there is archaeological potential a Stage 2 Archaeological Assessment was completed to identify any archaeological resources and confirm if further studies are required. A Stage 3 Archaeological Assessment is conducted if a location has cultural heritage value or interest that needs further study or additional mitigation measures to protect the resource.

#### Stage 1 Key Findings:

- The potential for discovering Aboriginal and Euro-Canadian archaeological resources was deemed to be moderate to high;
- Important features included: drinking water sources, areas of flat landscape, soils for agricultural purposes, known archaeological sites and Euro-Canadian historic documents; and
- Evidence exists for both Aboriginal and Euro-Canadian use of the area over time.

#### Stage 2 Key Findings:

- 61 archaeological sites were identified, including: 36 pre contact Aboriginal sites, 20 historic Euro-Canadian sites and 5 multi-component sites;
- Stage 3 Archaeological Assessments were recommended for approximately 30 sites, meaning that the locations have cultural heritage value or interest that requires further investigation. That work is underway and will be completed prior to the construction of the project.
- No further investigation was deemed necessary at any of the other sites.





## Cultural Heritage – Goshen Project

- A Cultural Heritage Assessment was conducted using historic research, mapping, field surveys and consultation with local historians;
- No protected properties or protected cultural heritage landscapes were found in the Project Location; and
- 71 structures (35 houses and 36 barns) older than 40 years were identified within the Project Location. These structures were identified as contributing to the character of the rural area. No further work was recommended since there are no anticipated direct or indirect impacts on these structures.







## Water – Goshen Project

- A Water Assessment was conducted to identify water bodies within 120m of the Project Location. A water body includes a lake, permanent stream, intermittent stream and seepage area, defined under O.Reg. 359/09.
- 83 water bodies were identified within 120m of the Project Location through desktop research and field investigations.
- Key Findings
  - ▲ 31 water bodies are located within 120m of turbines;
  - ▲ 42 are crossed by a collection line, with an additional 14 located within 120m of a collection line;
  - ▲ 8 are crossed by an access road, with an additional 15 located within 120m of an access road;
  - A 9 are crossed by overhead wires for a transmission line, 1 is crossed via horizontal directional drilling for the transmission line, and 2 are located within 120m of the transmission line;
  - ↓ 1 is located within 120m of the breaker switch station; and
  - → 3 are located within 120m of meteorological towers.

#### **Potential Effects and Mitigation**

The table below presents a summary of the potential effects on water bodies and proposed mitigation measures:

| Project Phase                    | Potential Effects                                                                                             | Mitigation Measures                                                                                                                                                                                           |
|----------------------------------|---------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Construction/<br>decommissioning | Erosion and sedimentation from clearing vegetation                                                            | Erosion blankets, erosion control fencing and straw bales will<br>be used to control erosion and prevent soil from entering<br>watercourse.                                                                   |
|                                  | Degradation of fish habitat<br>from access roads crossing<br>water courses                                    | Culverts will be designed and installed in a way to prevent barriers to fish movement.                                                                                                                        |
|                                  | Soil compaction which<br>could increase water runoff<br>into watercourses                                     | Changes in land contours and natural drainage will be<br>minimizes and temporary storage basins installed to allow<br>water infiltration, or permanent stormwater management<br>facilities used as necessary. |
| Oracions                         | Water contamination from<br>accidental spills associated<br>with maintenance activity<br>(unlikely to occur). | Spill response plan will be developed and an emergency spill<br>kit kept on site. Any spills will be reported to the Ministry of<br>the Environment and local municipalities.                                 |



## Natural Heritage - Goshen Project

- Information was gathered to identify and investigate natural features such as provincial parks, wetlands, woodlands or wildlife (e.g. bird or bat) habitats within 120m of the Project Location. Features were evaluated for significance, according to provincial criteria. Where significance was established an Environmental Impact Study (EIS) was conducted.
- The EIS identified negative effects on the environment, proposed mitigation measures, identified residual effects and their significance, and described how the environmental effects monitoring plan, and construction plan address any negative environmental effects.
- The following features were identified as significant:
  - · ▲ 14 wetlands;
    - ✓ 75 woodlands;
    - ▲ 1 valleyland; and
    - 66 types of significant wildlife habitat (e.g. amphibian breeding habitats, rare forest types, bat maternity colonies, waterfowl nesting habitat, woodland raptor nesting habitat.)
- For each natural heritage feature identified as significant, potential effects were assessed and mitigation measures/monitoring commitments proposed depending on the type of project infrastructure affecting the feature. The table below presents a summary of the potential effects and mitigation.

#### **Potential Effects and Mitigation**

| Project Phase                    | Potential Effect                                                                                                       | Mitigation Measures                                                                                                                                                                                                                                                              |
|----------------------------------|------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                  | Increased erosion,<br>sedimentation and<br>turbidity from clearing<br>vegetation for access<br>roads, crane paths etc. | Erosion control fencing will be kept in place until disturbed<br>areas are stable. All stockpiled materials will be kept away<br>from the features and periodic monitoring will take place<br>during construction to ensure compliance.                                          |
| Construction/<br>Decommissioning | Damage to vegetation                                                                                                   | Protective fencing installed to ensure work is kept within<br>identified zones. Periodic monitoring will take place during<br>construction to ensure compliance.                                                                                                                 |
|                                  | Soil and water<br>contamination from<br>accidental spills or oil,<br>gasoline or grease.                               | A spill response plan will be developed to outline the steps to<br>be taken in the event of a spill. An Emergency Response and<br>Communications Plan has been included in the Design and<br>Operations Report.                                                                  |
| Operations                       | Disturbance or mortality<br>to wildlife (e.g. birds<br>and bats) from turbine<br>collisions.                           | Operational mitigation techniques including periodic shut<br>down of turbines when the chances for bird or bat collisions<br>are increased. Monitoring will include three year post-<br>construction mortality surveys for birds and bats which will be<br>submitted to the MNR. |



## Noise Studies - Goshen Project

- Noise studies were conducted to help determine the final turbine layout. The noise studies comprise the following steps:
- Step 1: Identify points of reception dwellings (typically houses) that are within 2km of the wind turbines
- Step 2: Obtain wind turbine specifications and noise emission ratings from the manufacturer
- Step 3: Using an initial wind turbine layout, predict the noise levels generated at points of reception using a noise prediction model to ensure allowable limits are not exceeded. The noise model is designed in accordance with standards set by the Ministry of the Environment (MOE)
- Step 4: Using the noise model results, revise the turbine layout as necessary to ensure that the final turbine layout meets all applicable noise guidelines

#### Noise requirements under Renewable Energy Approval Regulation (O.Reg. 359/09)

- Wind turbines will be set back from dwelling units that are not part of the project by at least 550m (1804ft) and must be at or below 40dBA at 6m/s.
- Noise from turbines must meet provincial noise limits as outlined in MOE publication 4709e "Noise Guidelines for Wind Farms"

#### **Noise Assessment results**

 Modelling of predicted noise levels from the proposed turbines, transformer station and the existing Zurich wind turbine was undertaken. The results were as follows:



- All non-participating residences (vacant or occupied) comply with MOE guidelines for wind turbines they are predicted to be below the MOE noise criteria and are greater than 550m from the nearest wind turbine;
- ▲ A 6m high noise barrier on west, south and east sides will ensure that the transformer substation is in compliance with MOE noise limits.



## Noise Studies - Goshen Project



Wind speed of 6 m/s



## Shadow Flicker - Goshen Project

- Shadow flicker analysis is not required under O.Reg. 359/09; however, it has been undertaken to complement the REA application for the Project.
- Shadow flicker is a temporary condition resulting from the sun casting intermittent shadows from the rotating blades of a wind turbine onto a sensitive receptor such as a window in a building. For shadow flicker to occur, the following criteria must be met:

1. The sun must be shining and not obscured by any cloud cover.

- 2. The wind turbine must be between the sun and the shadow receptor.
- 3. The wind turbine must be facing directly towards (or away from) the sun.

4. The line of sight between the turbine and the shadow receptor must be clear. Obstacles, such as trees, buildings or other structures, will prevent or reduce shadow flicker from occurring at the receptor.

5. The receptor has to be close enough to the turbine to be in the shadow.

6. The turbine is operational and not stationary due to a lack of wind or maintenance activities.

#### **Shadow Flicker Assessment and Results**

- To assess the effects of shadow flicker, hourly meteorological data, terrain features, receptor, and turbine locations were considered to show the predicted amount of hours when shadow flicker will occur.
- The worst case maximum shadow flicker per day is 1.43 hours and the worst case maximum shadow flicker per year is 46.2 hours.
- This is a conservative analysis that does not account for maintenance time, winds less than 3 m/s when the turbines will not operate, or that the turbine will rarely be directly facing the sun which will shorten the shadow from the turbine blades.



## Shadow Flicker Contour Map - Goshen Project





## Decommissioning

- The anticipated life of the project is approximately 30 years. Decommissioning of the turbines will occur following the operations phase. A plan has been developed to dismantle or decommission the Project and to restore the land and manage excess water or waste.
- Decommissioning will be done in accordance with the Ontario Health and Safety Act and any applicable municipal, provincial and federal regulations and standards.
- The following components will be removed during dismantling:
  - 1. Turbines;
  - 2. Overhead lines and poles; and
  - 3. Transformer substation.
- Underground electrical lines will be cut and the ends buried to 1m below grade, leaving the lines in place with the consent of the landowner.

#### Restoration of land and water

- All areas, including the access roads, transformer pads and crane pads will be restored as much as practical to their original condition with native soils and seeding.
- There is the option for turbines to be "re-powered", meaning that components could be replaced to extend the life of the Project and delay decommissioning. This is based on receiving a new contract to sell power from the Ontario Power Authority, and turbines may still be decommissioned.





### **Transmission Line**

#### Transmission line - Why is it needed?

- Deliver clean energy to the Ontario system operator to reduce the use of fossil fuel generated electricity by Ontarians.
- System studies indicate there is ample capacity at this point of interconnection without significant network upgrades.
- Investment in transmission infrastructure is needed in Ontario. The plan places no additional burden on our aging infrastructure or Ontario ratepayers.









### Transmission Route Overview

- NextEra Energy Canada will build a 115 kV electrical transmission line from the step-up transformer station to the connection point with the Provincial electricity grid.
- The transmission line will be located on private property or within existing road rights-ofway.
- The electricity collected via the 34.5 kV underground collection lines will converge at the transformer substation where the electricity will be "stepped-up" to 115 kV for transmission and then routed to a breaker switch station.
- The breaker switch station will occupy less than 5 acres of land and is the point of interconnect with the existing Hydro One transmission line.

#### Selecting a Transmission Route

- Distance between the transmission line and existing structures is considered when selecting a route.
- Easement widths located on private property will vary between 33 200 feet (10 60 metres). Widths vary due to special features on a particular parcel.
- Existing land uses and the location of environmentally sensitive features are considered when choosing a route.

#### Land Owners and Easement Agreements

- Landowners will be paid a fair market value for the property subject to an easement.
- Compensation will be made for property damage caused during construction and operation of the transmission line (including crops).
- Additionally, we will repair damages to fences, gates, tiling, roads, etc.



## Construction of a Transmission System

The construction of the transmission system is being considered on municipal rights of way, private lands or a combination of both within the transmission study area.

- Transmission structures will typically be single poles made of metal, wood, or concrete.
- Poles will be approximately 18 27 metres (60 90 feet) in height.
- A typical span between poles will be 91 182 metres (300 600 feet).
- Transmission lines must be constructed to standards outlined by the Province and/or electrical codes.

#### **Transmission Approvals Process**

- Transmission lines (lines with voltages higher than 50 kV) that are longer than 2km require a Leave to Construct from the Ontario Energy Board.
- This process examines the need for the line and the proposed routing to ensure that the priorities given to the Ontario Energy Board by the government are met.
- The line is also permitted as part of the Renewable Energy Approval (REA) process.
- Natural heritage and archaeological studies have been conducted along the proposed transmission line route including:
  - ✓ Vegetation studies;
  - ▲ Aquatic habitat assessments; and
  - ▲ Birds, bat and wildlife studies.



## **Construction Plan**

- A construction plan has been developed to detail all the activities that are part of the Project's construction phase. This plan includes details of any potential effects, the appropriate mitigation measures and ongoing monitoring commitments.
- The schedule below shows the anticipated construction schedule for the Project. Construction is expected to start in fall 2013 and last for 6 months.





## Next Steps

#### **REA Process**

- The final REA reports will be submitted following the public open houses which will initiate the Ministry of the Environment's review.
- After the MOE deems the REA complete, final reports will be made available online at www.NextEraEnergyCanada.com for comment by the public and by stakeholders.

#### **Other Approvals Required Before Construction**

- In addition to the REA, permits and certificates of approval may be required from approval agencies before construction can begin. These may include:
  - ▲ Archaeological Clearance from the Ontario Ministry of Tourism, Culture and Sport
  - ⋆ (MTCS);
  - Fisheries Act Authorizations from the Federal Department of Fisheries and Oceans
    (DFO):
  - Aeronautical Obstruction Clearance from Transport Canada;
  - Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Permit from the conservation authorities; and
  - Other permits or authorizations from the Ontario Ministry of Natural Resources (MNR) and local municipalities.

#### Please visit <u>www.NextEraEnergyCanada.com</u> for more details on the progress of the project


Thank you for Attending!

- Thank you for attending this evening's Event
- Your input is important to us: please fill out an exit questionnaire and leave it with us tonight.
- Should you have any further questions or comments, please do not hesitate to contact us:

E-mail: Goshen.Wind@NextEraEnergy.com

Phone: 1-877-257-7330

Mail: Derek Dudek Community Relations Consultant NextEra Energy Canada, ULC 390 Bay Street, Suite 1720 Toronto, ON, M5H 2Y2



## Our environmental consultants:

#### **Goshen Wind Energy Project**

AECOM Marc Rose, Project Manager 905-477-8400, Ext. 388 Marc.Rose@aecom.com



## Visual Simulation: East of Dashwood Looking North













## Visual Simulation: West of Crediton Looking North











## Visual Simulation: West of Crediton Looking South







## Visual Simulation: West of Zurich Looking South







Filed: 2013-04-03 Goshen Wind, Inc. Exhibit G Tab 1 Schedule 4 Pages: 11

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#### TRANSMISSION LINE CONSULTATION REPORT

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## AECOM

NextEra Energy Canada, ULC

# Transmission Line Consultation Report – Goshen Wind Energy Centre

#### Prepared by:

AECOM 300 – 300 Town Centre Boulevard Markham, ON, Canada L3R 5Z6 www.aecom.com

905 477 8400 tel 905 477 1456 fax

Project Number: 60155032

Date: April, 2013

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#### **Glossary of Terms**

| EMF     | Electric and Magnetic Fields                   | O.Reg. 359/09 | Ontario Regulation 359/09       |
|---------|------------------------------------------------|---------------|---------------------------------|
| kV      | kilovolt                                       | PDR           | Project Description Report      |
| MOE     | Ontario Ministry of the Environment            | REA           | Renewable Energy Approval       |
| MNR     | Ontario Ministry of Natural Resources          | The Project   | Goshen Wind Energy Centre       |
| MTCS    | Ontario Ministry of Tourism, Culture and Sport | ULC           | Unlimited Liability Corporation |
| MW      | Megawatts                                      |               |                                 |
| NextEra | NextEra Energy Canada                          |               |                                 |

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Transmission Line Consultation Report – Goshen Wind Energy Centre

### 1. Introduction

Goshen Wind, Inc., a wholly owned subsidiary of NextEra Energy Canada, ULC (NextEra) is proposing to construct a wind energy project in the Municipalities of Bluewater and South Huron in Huron County, Ontario. The project will be referred to as the Goshen Wind Energy Centre (the Project) and will be located primarily on private lands east of Highway 21 in the vicinity of the shoreline of Lake Huron. The wind turbine technology proposed for this Project is the GE 1.6-100 Wind Turbine and GE 1.56-100 Wind Turbine (one turbine only). With a total nameplate capacity of 102 MW, the Project is categorized as a Class 4 facility under Ontario Regulation 359/09 (O. Reg. 359/09). Although NextEra is seeking a renewable energy approval (REA) for up to 72 wind turbines, only 63 are proposed to be constructed for the Project.

The following sections outline the consultation initiatives undertaken with stakeholders specifically in the vicinity of the proposed 115 kilovolt (kV) transmission line (the Facility) from February 2012 to present day. General consultation regarding the entire wind energy project began in 2010 and is included in the Final Consultation Report (with appendices) for the Goshen Wind Energy Centre's REA Application.

#### 1.1 Project Study Area

The Project Study Area consists of the areas being studied for the wind farm components (Wind Energy Centre Study Area), as well as for the interconnection route (i.e., the area being studied for transmission lines to connect the Project to the electrical grid) (Transmission Line Study Area). The Wind Energy Centre Study Area is not the subject of this document. The Transmission Line Study Area is located to the east of the Wind Energy Centre Study Area, and is generally bounded by Parr Line to the west, Thames Road to the north, Perth 164 Road to the east, and Park Road to the south, extending into the Municipality of South Huron.

### 2. Summary of Consultation Activities

NextEra carried out a robust consultation program for the Goshen Wind Energy Project which meets and exceeds the requirements outlined in O. Reg. 359/09, the regulation governing renewable energy projects in Ontario. Table 2-1 provides a list of all consultation initiatives undertaken for the Project while Section 3.0 and Section 4.0 of this report describe a subset of the consultation activities pertaining to the transmission line. These consultation activities involve three public meetings within the municipality where the transmission line is proposed and individual meetings with stakeholders along the transmission line corridor. Copies of correspondence received are provided in Appendix A – Public Consultation and Appendix D – Municipal Consultation of the Final Consultation Report for the Goshen Wind Energy Centre's REA Application.

2

| Consultation Requirement                                                                               | Date Completed                 | Required as per O.Reg 359/09 |
|--------------------------------------------------------------------------------------------------------|--------------------------------|------------------------------|
| Notice of Proposal Sent to Identified Aboriginal Communities                                           | May 26, 2010                   | Required                     |
| Notice of Proposal to Engage in a Project and of First Public Meeting –<br>Municipality of South Huron | May 26, 2010                   | Required                     |
| First Public Meeting – Municipality of South Huron                                                     | June 29, 2010                  | Required                     |
| Draft Project Description Report (PDR) made Available to the Public*                                   | June 29, 2010                  | Required                     |
| Landowner Workshop                                                                                     | February 15, 2011              | Additional                   |
| Project Newsletter #1                                                                                  | May, 2011                      | Additional                   |
| Round Table Meeting                                                                                    | July 19, 2011                  | Additional                   |
| Project Newsletter #2                                                                                  | October, 2011                  | Additional                   |
| Consultation Form and Draft PDR to Municipalities*                                                     | October 26, 2011               | Required                     |
| Notice of Drop-in Information Session                                                                  | November 25, 2011              | Additional                   |
| Drop-in Information Session                                                                            | December 6, 2011               | Additional                   |
| Notice of First Public Meeting – Municipality of Bluewater                                             | November 2, 2011               | Required                     |
| First Public Meeting – Municipality of Bluewater                                                       | December 8, 2011               | Required                     |
| Notice of Second Public Meetings – Municipality of Bluewater and<br>Municipality of South Huron        | April 25, 2012                 | Additional                   |
| Project Newsletter #3                                                                                  | May, 2012                      | Additional                   |
| Second Public Meetings – Municipality of Bluewater and Municipality of South Huron                     | May 29 and May 30, 2012        | Additional                   |
| Notice of Draft Site Plan /Draft Site Plan Release                                                     | July 4, 2012                   | Additional                   |
| Telephone Town Hall                                                                                    | September 13, 2012             | Additional                   |
| Distribution of Draft Documents for Review - Municipal                                                 | September 27, 2012             | Required                     |
| Distribution of Draft Documents for Review - Aboriginal                                                | October 10, 2012               | Required                     |
| Notice of Final Meeting - Municipalities of South Huron and Bluewater                                  | October 10, 2012               | Required                     |
| Distribution of Draft Documents for Review - Public                                                    | October 15, 2012               | Required                     |
| Landowner Meeting                                                                                      | December 4, 2012               | Additional                   |
| Final Public Meeting – Municipalities of South Huron and Bluewater                                     | January 9 and January 10, 2013 | Required                     |

## Table 2-1 Summary of Mandatory and Additional Consultation Activities for the Goshen Wind Energy Project

Note: \* Note that the first Public Meeting was held prior to the Amendment to O.Reg. 359/09 stating that the PDR must be made available and Municipal Consultation Form must be submitted to the Municipalities 30 days before the first Public Meeting.

### 3. Public Consultation Activities

This section summarizes the Project notices and associated Public Meetings within Municipality of South Huron, the municipality hosting the proposed transmission line.

#### 3.1 First Public Meeting – Municipality of South Huron

The Notice of Proposal and Notice of First Public Meeting informed the local community of NextEra's plans to engage in a renewable energy project and to host the first public meeting in the Municipality of South Huron on June 29, 2010 at the Dashwood Community Centre, in Dashwood, Ontario from 5:00 p.m. to 8:00 p.m. The Notice was published in the Exeter Times Advocate (on May 26, 2010 and June 23, 2010), the London Free Press (on May 28, 2010 and June 23, 2010), and the Lakeshore Advance, and Goderich Signal-Star (on June 2, 2010 and June 23, 2010). In addition, the Notice was posted on the Project's website and mailed to relevant Federal and Provincial agency contacts, including the MOE, local municipalities and potentially interested Aboriginal Communities.

The Notice was distributed prior to receiving the Director's List of Aboriginal Communities; however, once received, the Notice covered all communities listed. All subsequent Notices were delivered to the communities identified in the List in addition to other communities who expressed an interest in the Project. The Notice was distributed via Canada Post Admail throughout the Project Study Area and hand-delivered to addresses for which Canada Post Admail did not cover. Finally, the Notice was also posted on the Project's website on May 26, 2010.

The general purpose of the meeting was to provide an overview of the proposed Project to the community. Display panels were set up along the periphery of the room with several Project team members available to discuss the proposed Project and answer questions with stakeholders. 98 individuals registered their attendance at the meeting and 30 comment cards were submitted.

#### 3.2 Second Public Meeting – Municipality of South Huron

A community update meeting in the Municipality of South Huron on May 29, 2012 at the South Huron Recreation Centre, Exeter, Ontario from 4:00 pm to 7:00 pm. The meeting Notice was distributed to every assessed owner of land within 550 metres of the Project Location and every assessed owner of land abutting a parcel of land on which the Project is located in addition to the MOE, the Municipalities of Bluewater, South Huron and Huron County and interested Aboriginal Communities. Furthermore, the Notice was published in the Exeter Times Advocate, Lakeshore Advance, Turtle Island News, Seaforth Huron Expositor, Clinton News Record and the Goderich Signal-Star on April 25 and May 23. Finally, the Notice was also posted on the Project's website on April 25, 2012.

The general purpose of the meetings was to provide an update on the proposed changes regarding the transmission line for the Project. The Project Description Report – Goshen Wind Energy Centre was made available for public review. One hundred individuals registered their attendance at the May 29, 2012 meeting and 15 individuals registered their attendance at the May 30, 2012 meeting. A total of 24 comment cards were submitted after the May 29 and 30, 2012 meetings.

#### 3.3 Final Public Meeting – Municipality of South Huron

The final public meeting in the Municipality of South Huron was held on January 9, 2013 at the South Huron Recreation Centre (Municipality of South Huron) from 5:00 p.m. to 8:00 p.m. The meeting Notice was distributed to every assessed owner of land within 550 metres of the Project Location and every assessed owner of land abutting a parcel of land on which the Project is located in addition to the MOE, Transport Canada and NAV Canada, the Municipalities of Bluewater, South Huron and Huron County and interested Aboriginal Communities. Furthermore, the Notice was published in the Exeter Times Advocate and the Turtle Island News on October 10, 2012; Lakeshore Advance, Clinton News Record, Seaforth Huron Expositor on October 17, 2012; and the Goderich Signal-Star on October 24, 2012. The Notice appeared in all the above-listed newspapers on December 12, 2012 and January 2, 2013. Finally, the Notice was posted on the Project's website on October 10, 2012. NextEra elected to publish the Notice in each local newspaper a third time to remind stakeholders of the final public meetings given that the public review period was extended to allow additional time to review the Draft REA Reports.

The general purpose of the meetings was to present the results of the effects assessments, including mitigation measures and possible residual effects, in addition to presenting minor modifications to the project layout since the draft REA reports were submitted. Display panels were set up along the periphery of the room and Project team members were available to discuss the proposed Project and answer questions with stakeholders.

In addition, the draft REA reports and report summaries were made available for public review. NextEra also elected to make available at the meeting a Project Modification Report which highlighted where changes in the REA Reports will be made as a result of modifications to the Project design and comments from review agencies (i.e., MNR and

MTCS) since the release of the Draft REA Reports. These modifications resulted from ongoing consultation with landowners hosting infrastructure and were also highlighted in the public meeting display panels. The majority of these modifications included minor shifts in access roads or collection lines, and no turbine locations were altered. Also in response to comments from the public, NextEra modified the display panels showing the Project Location to make town/city names more apparent. Several Project Location maps were provided at the meetings on display panels and paper copies on tables for attendee review.

Approximately 49 individuals attended the January 9, 2013 meeting, with 19 individuals registering their attendance and approximately 51 individuals attended the January 10, 2013 meeting, with 23 individuals registering their attendance. Eight comment cards were submitted at the two meetings.

#### 3.4 Individual Stakeholder Meetings within the Transmission Line Corridor

NextEra initiated individual meetings with landowners along the proposed transmission line route from February 2012 to present day to discuss plans for the 115 kV transmission line. NextEra met with approximately 50 landowners to share information about the proposed transmission line, answer questions and discuss siting the transmission line. The topics associated with the landowners' questions and comments were consistent with those received at public meetings throughout the planning process, including:

- Property values;
- Visual effects;
- Health effects;
- Stray voltage;
- Electric and magnetic fields;
- · Potential "build out" of the transmission line;
- · Location of the transmission line in proximity to homes; and
- Renewable energy development opposition and approval requirements.

NextEra's responses to these questions and comments are summarized in Table 3-1 below.

Throughout 2012, NextEra delivered information packages in person or via mail whenever a landowner along the proposed transmission line route had a concern or question. The information packages included studies on stray voltage and electromagnetic fields. NextEra continues to meet with landowners to maintain open communication and to answer any questions as they arise.

#### 3.5 Summary of Public Comments

The following table presented a summary of common topics raised over the course of the Project with respect to the proposed transmission line. Copies of the correspondence, with personal information redacted, is available in the Final Consultation Report for the Goshen Wind Energy Centre's REA Application.

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| Canada, |
| Energy  |
| NextEra |

# uch Public Consultation Ş ice Daisod th Ş ŀ ¢ ū Table 3-1

### 4. Municipal Consultation

Table 4-1 details consultation efforts with the Municipalities of Bluewater, South Huron and Huron County with regard to the proposed transmission line.

#### 4.1 Municipal Consultation Form and Draft PDR to Municipalities

The Municipal Consultation Form, which is intended to aid in highlighting key municipal issues associated with the Project, was first provided to the Municipalities on October 26, 2011. Updated Municipal Consultation Forms were later sent to the Municipalities on September 27, 2012 along with the draft REA Reports to commence the municipal consultation period. NextEra has received completed Municipal Consultation Forms from the Municipalities of Bluewater, South Huron and Huron County and is currently developing responses. NextEra will continue to meet with the municipalities to address their comments throughout the permitting process.

#### 4.2 Summary of Key Municipal Correspondence

The following table represents key pieces of correspondence from the municipalities engaged in the Project. Copies of meeting minutes, where available, are provided in the Final Consultation Report for the Goshen Wind Energy Centre's REA Application.

| Date                 | Municipality | Description of Consultation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Follow-up/Response                                                                                                                                                                            |
|----------------------|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| November 21,<br>2007 | South Huron  | <ul> <li>Presentation to South Huron Council to introduce<br/>the company and general introduction to wind<br/>energy.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                   | • N/A                                                                                                                                                                                         |
| March 10, 2008       | Bluewater    | <ul> <li>Presentation to Bluewater Council to introduce<br/>the company and general introduction to wind<br/>energy.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                     | • N/A                                                                                                                                                                                         |
| February 16,<br>2011 | Bluewater    | <ul> <li>NextEra held a meeting with Municipality of<br/>Bluewater staff. Discussion topics included:</li> <li>Brief background of Project;</li> <li>Clarification of Feed-in-Tariff contract timing;</li> <li>Upcoming archaeological work;</li> <li>Ownership of transmission line;</li> <li>Future municipal road work on Goshen Line<br/>and any potential effects or conflicts from the<br/>Project construction; and,</li> <li>Opportunities to assist with solar projects at<br/>municipal sites.</li> </ul> | <ul> <li>NextEra provided meeting minutes for review.</li> <li>NextEra will continue discussions with the<br/>Municipality of Bluewater as more information<br/>becomes available.</li> </ul> |

#### Table 4-1 Summary of Key Municipal Correspondence

| May 9, 2011<br>June 27, 2011 | South Huron<br>South Huron | <ul> <li>NextEra held a meeting with staff to introduce<br/>the project and answer questions.</li> <li>Municipality suggested exploring the idea of a<br/>workshop to address Council as a first step.</li> <li>Municipality provided information on suitable<br/>interest groups to contact with respect to future<br/>consultation.</li> <li>NextEra held a meeting with council to introduce</li> <li>NextEra will continue discussions with the</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|------------------------------|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                              |                            | <ul> <li>the project and answer questions. Discussion topics included:</li> <li>Brief background of Project;</li> <li>Feed-in-Tariff contract information;</li> <li>Upcoming field work;</li> <li>Siting Project Infrastructure;</li> <li>Permitting; and,</li> <li>Next Steps.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| July 19, 2011                | Huron County               | <ul> <li>NextEra held a meeting with Huron County staff<br/>to introduce NextEra and the Project. Discussion<br/>topics included:</li> <li>Brief background of Project;</li> <li>Update on July 4, 2011 Feed-in-Tariff contract<br/>announcement; and, County suggested to<br/>schedule the next meeting when a turbine<br/>layout was available.</li> <li>NextEra provided minutes meeting for review.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| September 12,<br>2011        | South Huron                | <ul> <li>AECOM requested information pertaining to the percentage of wooded areas in the Municipality of South Huron, criteria used to evaluate significant woodlands and related GIS data layers for significant woodlands, as identified in the Municipality of South Huron Official Plan.</li> <li>The Municipality suggested contacting the ABCA for this information.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| October 31, 2011             | South Huron                | Attendance and presentation at Council Meeting.      N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| November 9,<br>2011          | Huron County               | <ul> <li>NextEra appeared as a delegation to Huron<br/>County Council to introduce NextEra and the<br/>Project and to provide an update on the Project.<br/>Discussion topics included:</li> <li>Municipal property taxes; and,</li> <li>Health effects associated with existing<br/>NextEra facilities (NextEra has found no<br/>credible, scientifically peer-reviewed study<br/>that demonstrates a causal link between wind<br/>turbines and negative health effects.)</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| February 23,<br>2012         | South Huron                | <ul> <li>NextEra met with staff to provide an update on<br/>the Project including an explanation of the<br/>required overhead transmission line route.</li> <li>NextEra provided meeting minutes for review.</li> <li>NextEra to confirm details of the Community<br/>Vibrancy Fund and construction details and have<br/>follow-up meeting closer to the release of the<br/>Draft REA Reports.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| May 17, 2012                 | Bluewater                  | <ul> <li>NextEra appeared as a delegation to Bluewater<br/>Council to provide a project update at a meeting<br/>specially convened by Council to discuss Wind<br/>Turbines". Questions from council included:         <ul> <li>Community Vibrancy Fund terms and<br/>limitations;</li> <li>Effects on property value;</li> <li>Concerns over underground gas storage in<br/>area;</li> <li>Effects to tundra swans; and,</li> <li>Examples of changes in other projects as a<br/>result of consultation.</li> </ul> </li> <li>NextEra answered many of the questions of<br/>Council at the meeting as such, most do not<br/>require follow-up;</li> <li>Items for clarification and follow-up were<br/>addressed in a formal letter to Council dated<br/>September 28, 2012 (provided in Appendix D4).</li> <li>NextEra clarified details of the Community<br/>Vibrancy Fund, the Feed-In-Tariff Program,<br/>property values, building permit requirements<br/>and transmission line specifics, NextEra also<br/>provided background information on bird studies<br/>conducted as part of the planning process.</li> <li>Although the letter is specific to NextEra's<br/>Bluewater Wind Energy Project, the subject<br/>matter discussed in the meeting and provided in<br/>the response letter also pertain to the Goshen<br/>Wind Energy Project.</li> </ul> |
| May 29, 2012                 | South Huron                | NextEra met with staff to discuss the proposed     N/A     transmission line.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

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|---------------------|-----------------------------------------------------------|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| June 14, 2012       | Bluewater                                                 |   | <ul> <li>NextEra held an informal meeting with Bluewater<br/>Staff to discuss Project engineering, operations,<br/>the MCF and to answer questions. Discussion<br/>topics included:</li> <li>Underground gas storage pools in the area;</li> <li>Tundra swan studies, which the municipality<br/>thought were insufficient;</li> <li>Building permit fees;</li> <li>Buried transmission lines; and,</li> <li>Decommissioning plan.</li> </ul> | • | Many of the matters to be addressed were from<br>the May 17, 2012 Council delegation are<br>addressed in a formal letter to Council dated<br>September 28, 2012 (provided in Appendix D4).<br>NextEra provided information on building permit<br>requirements and transmission line specifics,<br>NextEra also provided background information<br>on bird studies conducted as part of the planning<br>process and the decommissioning plan.<br>Although the letter is specific to NextEra's<br>Bluewater Wind Energy Project, the subject<br>matter discussed in the meeting and provided in<br>the response letter also pertain to the Goshen<br>Wind Energy Project. |
| October 5, 2012     | Huron County,<br>South Huron,<br>Bluewater, Huron<br>East | • | NextEra met with staff to introduce NextEra's<br>engineering and construction staff and to discuss<br>details of the proposed transmission line and<br>permitting requirements.                                                                                                                                                                                                                                                               | • | NextEra provided minutes meeting for review.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| October 11, 2012    | Bluewater, South<br>Huron and Huron<br>County             | • | Draft REA Reports provided to commence Public<br>Consultation Period.                                                                                                                                                                                                                                                                                                                                                                         | • | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| November 5,<br>2012 | Bluewater                                                 | • | Presentation to Council regarding building<br>permits.                                                                                                                                                                                                                                                                                                                                                                                        | • | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| December 2,<br>2012 | South Huron                                               | • | NextEra provided a Project update to council.                                                                                                                                                                                                                                                                                                                                                                                                 | • | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

Filed: 2013-04-03 Goshen Wind, Inc. Exhibit G Tab 1 Schedule 5 Pages: 11

#### RECORD OF CONSULTATION

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| FIN                                      | Date              | GeneralNotes                                                                                                                                                                                               |
|------------------------------------------|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 412580026                                | March 26, 2012    | Spoke with landowners and set an appointment for presentation of agreement.                                                                                                                                |
|                                          | April 23, 2012    | Met with landowners and discussed the transmission line and presented the agreement. Landowners decided to sign the agreement.                                                                             |
| 412580014                                | February 22, 2012 | Met with landowner and discussed transmission line and agreement. Landowner would like to review an agreement.                                                                                             |
|                                          | February 24, 2012 | Spoke to landowner to ask about contact information of a family member.                                                                                                                                    |
| 412580024                                | February 22, 2012 | Spoke to landowner about project. Landowner would prefer if we speak to a family member about this matter. Spoke to family member about project and agreement. Landowner is undecided.                     |
|                                          | April 2, 2012     | Spoke to landowner to follow up with agreement. Landowners have decided to consult a lawyer and will contact us after their meeting with the lawyer to follow-up.                                          |
| 412580216                                | February 15, 2012 | Spoke with landowner and discussed transmission line and agreement. Landowner let us know they would be unavailable for a few weeks.                                                                       |
|                                          | May 1-2012        | Sooke with landowner and set an appointment to present agreement                                                                                                                                           |
| an a | May 3, 2012       | Spoke to landowner about transmission line and agreement. Landowner is concerned about location of infrastructure and the action of nearby                                                                 |
|                                          | May 14, 2012      | Iandowners. Spoke to landowner about transmission line and agreement. Landowner has concerns about location of infrastructure. We set a follow up consistent them in the smole                             |
|                                          | May 16, 2012      | Appointmenerate in the week agreement after which landowner decided to sign                                                                                                                                |
| 412580087                                | February 27, 2012 | Spoke with landowners about transmission line and agreement. Landowners are open to participating despite having reservations. Landowners would like to review the agreement and accompanying documents.   |
|                                          | June 14, 2012     | Met with landowners and reviewed agreement. Landowners decided to sign agreement.                                                                                                                          |
| 412580088                                | February 15, 2012 | Met with landowner and discussed transmission line. Landowner is opposed to transmission line. A follow-up is required to inform landowner of agreement.                                                   |
|                                          | February 22, 2012 | Spoke to landowner who was not interested in discussing the transmission line or agreement.                                                                                                                |
|                                          | July 31, 2012     | Met with landowners and discussed transmission line and agreement. Landowners are reluctant but agreed to review the agreement.                                                                            |
|                                          | August 7, 2012    | Spoke to landowner and set an appointment to meet later in the week.                                                                                                                                       |
|                                          | August 10, 2012   | Met with landowners and reviewed the agreement and their final concerns landowner shared details about the property and decided to sign the agreement.                                                     |
| 412580159                                | February 17, 2012 | Met with landowner and discussed the transmission line and agreement. Landowner is opposed to the transmission line. Provided landowner with contact information.                                          |
|                                          | February 20, 2012 | Spoke with family member about the transmission line and agreement. Family member would like to review the agreement on behalf of<br>landowner.                                                            |
|                                          | March 7, 2012     | Met with landowner and presented agreement. Landowner has reservations and would like to seek legal counsel. Landowner will follow-up.                                                                     |
|                                          | April 25, 2012    | Spoke with family member of landowner who informed that landowner has strong reservations and is undecided. Landowner will follow-up if there is a change in opinion.                                      |
| 412580160                                | April 18, 2012    | Spoke to landowners about transmission line and agreement. Landowners would like to review an agreement a                                                                                                  |
|                                          | May 2, 2012       | Spoke to landowner to follow-up on previous discussion. Landowner has decided to seek legal counsel:                                                                                                       |
|                                          | May 16, 2012      | Met with landowner to discuss questions and schedule a follow-up appointment                                                                                                                               |
|                                          | May 19, 2012      | Met with landowner to follow up on previous discussion. Discussed the agreement and related questions and concerns: Landowner would like to continue to consider agreement. Meeting set for following week |

### **Goshen Transmission - Record of Consultation**

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| RIN <sup>de</sup>                                                                                                                                 | DID                | ସେଥିମାର୍ଯ୍ୟାର୍ଯ୍ୟ                                                                                                                                                                                            |
|---------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                   | May 22, 2012       | Met landowner who decided to sign agreement.                                                                                                                                                                 |
| 412590005                                                                                                                                         | March 3, 2012      | Spoke with landowner about transmission line and agreement. Landowner would like to review an agreement.                                                                                                     |
| ÷ ,                                                                                                                                               | March 28, 2012     | Spoke with landowner to follow up on previous discussion and schedule a meeting for the following week.                                                                                                      |
|                                                                                                                                                   | April 3, 2012      | Spoke with landowner and rescheduled meeting for the following week.                                                                                                                                         |
|                                                                                                                                                   | April 10, 2012     | Met with landowner and presented agreement. Landowner would like to review agreement and will follow-up in the following week.                                                                               |
|                                                                                                                                                   | April 18, 2012     | Met with landowner who had concerns about the possible effect on trees and compensation.                                                                                                                     |
|                                                                                                                                                   | April 27, 2012     | Spoke with landowner who has decided to participate. Meeting set for following week.                                                                                                                         |
|                                                                                                                                                   | May 1, 2012        | Met with landowners who signed the agreement.                                                                                                                                                                |
| 412590004                                                                                                                                         | June 7, 2012       | Spoke with landowner about transmission line and agreement. Landowner had concerns about placement of infrastructure and compensation.                                                                       |
|                                                                                                                                                   | June 7, 2012       | Spoke with landowner to follow-up with landowners concerns. Landowner would like to review an agreement.                                                                                                     |
| and an                                                                                                        | June 29, 2012      | Met with landowner and presented agreement. Landowner has decided to have a lawyer review the agreement.                                                                                                     |
|                                                                                                                                                   | July 9, 2012       | Met with landowner to follow-up on previous discussion. Landowner is awaiting legal response and will follow-up next week.                                                                                   |
|                                                                                                                                                   | July 18, 2012      | Spoke with landowner and scheduled follow-up for the following day.                                                                                                                                          |
|                                                                                                                                                   | July 31, 2012      | Spoke with landowner and scheduled a follow-up meeting for next week.                                                                                                                                        |
|                                                                                                                                                   | August 2, 2012     | Met with landowner and discussed requests and concerns with agreement:                                                                                                                                       |
| en de la serie de la serie<br>la serie de la serie<br>de la serie de la s | September 18, 2012 | Spoke with landowner who is not available to meet. Scheduled a follow-up meeting with landowner for next week.                                                                                               |
|                                                                                                                                                   | September 24, 2012 | Spoke with landowner and rescheduled meeting for the following day.                                                                                                                                          |
|                                                                                                                                                   | September 25, 2012 | Spoke with landowner and reviewed agreement. Landowner would like to discuss with legal counsel.                                                                                                             |
|                                                                                                                                                   | October 5, 2012    | Spoke with landowner who shared legal comments about the agreement. Landowner, requested a follow-up pending review of legal comments                                                                        |
|                                                                                                                                                   | October 16, 2012   | Spoke with landowner about agreement. Landowner had decided to continue considering and reviewing agreement:                                                                                                 |
| 412590006                                                                                                                                         | April 18, 2012     | Met with landowner and discussed transmission line and agreement. Landowner would like to review an agreement.                                                                                               |
|                                                                                                                                                   | May 2, 2012        | Met with landowner and discussed agreement. Landowner would like to have the agreement reviewed by a lawyer.                                                                                                 |
|                                                                                                                                                   | May 16, 2012       | Met with landowner and discussed questions about the agreement. Scheduled a follow-up for later in the week.                                                                                                 |
|                                                                                                                                                   | May 19, 2012       | Met with landowner and discussed remaining questions and concerns. Landowner would like to continue considering the agreement. Scheduled a follow-up meeting for the following week.                         |
| 1. e                                                                                                                                              | May 22, 2012       | Met with landowner who decided to sign agreement.                                                                                                                                                            |
| 412590013                                                                                                                                         | February 27, 2012  | Spake with landownais about ar insmission line and a green and lendownake re open to participating despite having reservations. Landownake<br>Would like to review the agreement and accompanying deciments. |
| en for en                                                                                                     | June 14, 2012      | Metwith Indowners and reviewed a reament. Landowners deadled to stan argumants                                                                                                                               |
| 412590018                                                                                                                                         | March 29, 2012     | Met with landowner and discussed transmission line and agreement. Landowner would like to review an agreement.                                                                                               |
| ,                                                                                                                                                 | April 10, 2012     | Spoke with landowner and scheduled an agreement presentation for the following day.                                                                                                                          |
|                                                                                                                                                   | April 11, 2012     | Met with landowner and presented agreement. Landowner would like to take the agreement to a lawyer.                                                                                                          |
|                                                                                                                                                   | April 20, 2012     | Spoke with landowner who had a request and is interested in participating.                                                                                                                                   |

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|--------------------------------------------------------------------------------------------------------------------|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                    | May 1, 2012       | Met with landowner and reviewed agreement. Scheduled a follow-up for next day.                                                                                       |
|                                                                                                                    | May 2, 2012       | Met with landowner who decided to sign the agreement.                                                                                                                |
| 412590019                                                                                                          | February 16, 2012 | Spoke with landowner and discussed transmission line and agreement. Landowner was not able to discuss in detail but requested a follow-u<br>meeting at a later date. |
|                                                                                                                    | February 24, 2012 | Spoke with landowner to schedule follow-up meeting. Landowner will check schedule and will be in contact with availability.                                          |
|                                                                                                                    | March 12, 2012    | Met with landowner and presented agreement, Landowner would like to review the agreement further and requested a follow up next wee                                  |
| na da serie da serie<br>En la constante da serie da | April 3, 2012     | Met with landowner and discussed agreement: Landowner has a request which will be followed up on                                                                     |
|                                                                                                                    | April 30, 2012    | Met with landowner and discussed agreement. Landowner is interested in participation and would like to discuss further with family second                            |
|                                                                                                                    | May 2, 2012       | Spoke to landowner to follow-up on previous discussion. Landowner will check schedule and be in contact with availability.                                           |
|                                                                                                                    | May 10, 2012      | Met with landowners who decided to sign the agreement.                                                                                                               |
|                                                                                                                    | October 24, 2012  | Spoke with landowner regarding studies on the property. Landowner gave approval:                                                                                     |
| 412590027                                                                                                          | February 25, 2012 | Met with landowner and discussed transmission line and agreement. Landowner would like to review the agreement.                                                      |
|                                                                                                                    | March 10, 2012    | Spoke with landowner to follow-up on previous discussion. Landowners are open to reviewing the agreement later in the week.                                          |
|                                                                                                                    | March 13, 2012    | Met with landowner and presented agreement. The landowner would like to further review the agreement.                                                                |
|                                                                                                                    | May 2, 2012       | Spoke with landowner regarding agreement. Landowner is open to participation and had a request.                                                                      |
|                                                                                                                    | October 26, 2012  | Met with landowner who has decided against participation.                                                                                                            |
| 412590029                                                                                                          | February 17, 2012 | Met with a family member of landowner who informed that the landowner is away and provided us with contact information.                                              |
|                                                                                                                    | April 12, 2012    | Met with landowner and discussed transmission line, agreement and presented agreement. Landowner decided to sign agreement-                                          |
|                                                                                                                    | July 16, 2012     | Met with landowner regarding studies on the property. Landowner gave approval:                                                                                       |
|                                                                                                                    | November 12, 2012 | Spoke with family member who had a request on behalf of the landowner regarding the infrastructure.                                                                  |
|                                                                                                                    | November 19; 2012 | Spoke with landowner to follow-up on request relayed by family member. Landowner confirmed request.                                                                  |
| 412590026                                                                                                          | February 25, 2012 | Met with landowner and discussed transmission line and agreement. Landowner would like to review the agreement.                                                      |
|                                                                                                                    | March 10, 2012    | Spoke with landowner to follow-up on previous discussion. Landowners are open to reviewing the agreement later in the week.                                          |
| ·                                                                                                                  | March 13, 2012    | Met with landowner and presented agreement. The landowner would like to further review the agreement.                                                                |
|                                                                                                                    | May 2, 2012       | Spoke with landowner regarding agreement. Landowner is open to participation and had a request.                                                                      |
|                                                                                                                    | October 26, 2012  | Met with landowner who has decided against participation.                                                                                                            |
| 412590028                                                                                                          | February 17, 2012 | Met with a family member of landowner who informed that the landowner is away and provided us with contact information;                                              |
|                                                                                                                    | Ápril 12, 2012    | Met with landowner and discussed transmission line, agreement and presented agreement. Landowner decided to sign agreement                                           |
|                                                                                                                    | July 16, 2012     | Met with landowner regarding studies on the property. Landowner gave approval.                                                                                       |

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| ÊIN       | Date               | GenerellNotes                                                                                                                                                      |
|-----------|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|           | November 12, 2012  | Spoke with family member who had a request on behalf of the landowner regarding the infrastructure.                                                                |
|           | November 19, 2012  | Spoke with landowner to follow-up on request relayed by family member. Landowner confirmed request.                                                                |
| 412610040 | February 29, 2012  | Met with landowner and discussed transmission line and agreement. Landowner is opposed to the project.                                                             |
|           | May 1, 2012        | Met with landowner and provided an agreement for review. Landowner is concerned about property value.                                                              |
|           | January 2, 2013    | Met with landowner and discussed their concerns about property value.                                                                                              |
|           | January 14, 2013   | Spoke to landowner and discussed concerns about property value.                                                                                                    |
| 412610042 | February 23, 2012  | Met with landowner and discussed transmission line and agreement. Landowner would like think about it and is open to a follow up at a later date.                  |
|           | March 1, 2012      | Spoke with landowner about transmission line. Landowner is concerned about aesthetics:                                                                             |
|           | August 16, 2012    | Spoke with landowner to follow up on previous discussion and discuss agreement. Landowner would like to review the agreement.                                      |
|           | September 25, 2012 | Met with landowner who decided to sign the agreement.                                                                                                              |
| 412610043 | February 23, 2012  | Met with landowner and discussed transmission line and agreement. Landowner is unsure about participating.                                                         |
|           | April 30, 2012     | Met with landowner who is still undecided about participating. Landowner would like to continue to consider offer.                                                 |
|           | August 7, 2012     | Met with landowners who decided to participate and signed the agreement.                                                                                           |
| 412610033 | February 16, 2012  | Met with landowner and discussed transmission line and agreement. Landowner would like to review the agreement.                                                    |
|           | February 20, 2012  | Spoke with landowner about agreement and related details:                                                                                                          |
|           | March 6, 2012      | Met with landowner and presented agreement. Landowner would like to further review the agreement                                                                   |
|           | March 12, 2012     | Met with landowner who decided to sign the agreement.                                                                                                              |
| 412610034 | February 16, 2012  | Met with landowner and discussed transmission line and agreement. Landowner would like to review the agreement.                                                    |
|           | February 17, 2012  | Met with landowner and discussed agreement and related questions.                                                                                                  |
|           | February 24, 2012  | Spoke with landowner and scheduled a follow-up meeting for the following week.                                                                                     |
|           | March 5, 2012      | Met with landowner and presented agreement. Landowner would like to continue considering offer.                                                                    |
|           | March 8, 2012      | Met with landowner and discussed the transmission line, agreement and public meeting. Landowner is still undecided.                                                |
|           | May 1, 2012        | Spoke with landowner about agreement and public meeting. Landowner requested a follow-up at a later date.                                                          |
|           | June 4, 2012       | Met with landowner who decided to sign the agreement.                                                                                                              |
| 412610061 | February 22, 2012  | Met with landowner and discussed transmission line and agreement. Landowner is interested in participating but is concerned about the placement of infrastructure. |
|           | March 9, 2012      | Spoke with landowner and discussed the transmission line, agreement and questions                                                                                  |
|           | March 10, 2012     | Spoke with landowner who still has concerns about the placement of infrastructure.                                                                                 |
|           | March 13, 2012     | Met with landowner and followed up on concerns. Landowner requested a follow-up at a later date.                                                                   |
|           | March 31, 2012     | Spoke with landowner about agreement. Landowner would like to continue considering the offer.                                                                      |

| 1. e                                                                                                                                                                                                                                                                                                                                                                                  |                   |                                                                                                                                                                    |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PINC                                                                                                                                                                                                                                                                                                                                                                                  | Date              | Ganazalikates                                                                                                                                                      |
|                                                                                                                                                                                                                                                                                                                                                                                       | April 12, 2012    | Spoke with family member who informed me the landowner is unavailable.                                                                                             |
|                                                                                                                                                                                                                                                                                                                                                                                       | April 25, 2012    | Spoke with landowner and set a meeting.                                                                                                                            |
|                                                                                                                                                                                                                                                                                                                                                                                       | May 16, 2012      | Met with landowner and discussed transmission line, agreement and concerns. Scheduled a follow-up appointment for the next day, 🚁 -                                |
|                                                                                                                                                                                                                                                                                                                                                                                       | May 17, 2012      | Spoke with landowner about agreement and set a follow-up appointment.                                                                                              |
|                                                                                                                                                                                                                                                                                                                                                                                       | June 6, 2012      | Met with landowner who decided to sign agreement.                                                                                                                  |
| 412610024                                                                                                                                                                                                                                                                                                                                                                             | February 22, 2012 | Met with landowner and discussed transmission line and agreement. Landowner is interested in participating but is concerned about the placement of infrastructure. |
|                                                                                                                                                                                                                                                                                                                                                                                       | March 9, 2012     | Spoke with landowner and discussed the transmission line, agreement and questions.                                                                                 |
|                                                                                                                                                                                                                                                                                                                                                                                       | March 10, 2012    | Spoke with landowner who still has concerns about the placement of infrastructure.                                                                                 |
| ž.,                                                                                                                                                                                                                                                                                                                                                                                   | March 13, 2012    | Met with landowner and followed up on concerns. Landowner requested a follow-up at a later date.                                                                   |
|                                                                                                                                                                                                                                                                                                                                                                                       | March 31, 2012    | Spoke with landowner about agreement. Landowner would like to continue considering the offer.                                                                      |
|                                                                                                                                                                                                                                                                                                                                                                                       | April 12, 2012    | Spoke with family member who informed me the landowner is unavailable.                                                                                             |
|                                                                                                                                                                                                                                                                                                                                                                                       | April 25, 2012    | Spoke with landowner and set a meeting.                                                                                                                            |
|                                                                                                                                                                                                                                                                                                                                                                                       | May 16, 2012      | Met with landowner and discussed transmission line, agreement and concerns. Scheduled a follow-up appointment for the next day.                                    |
|                                                                                                                                                                                                                                                                                                                                                                                       | May 17, 2012      | Spoke with landowner about agreement and set a follow-up appointment.                                                                                              |
| A. A.                                                                                                                                                                                                                                                                                                                                                                                 | June 6, 2012      | Met with landowner who decided to sign agreement.                                                                                                                  |
| 412610011                                                                                                                                                                                                                                                                                                                                                                             | February 24, 2012 | Met with landowner and discussed transmission line and agreement. Landowner would like to review the agreement .                                                   |
| Antonio y subject a series and<br>Antonio y subject a series and<br>Antonio y subject a series and<br>Antonio y subject a series and a series and<br>Antonio y subject a series and a<br>Antonio y subject a series and a | February 25, 2012 | Spoke with landowner about agreement.                                                                                                                              |
|                                                                                                                                                                                                                                                                                                                                                                                       | March 7, 2012     | Spoke with landowners and scheduled a meeting for later in the week                                                                                                |
|                                                                                                                                                                                                                                                                                                                                                                                       | March 9, 2012     | Met with landowners and presented the agreement. Landowners would like to consider the offer.                                                                      |
|                                                                                                                                                                                                                                                                                                                                                                                       | March 12, 2012    | Spoke with landowner and discussed questions and set a follow up meeting for the following day.                                                                    |
|                                                                                                                                                                                                                                                                                                                                                                                       | March 13, 2012    | Met with landowners who decided to sign the agreement.                                                                                                             |
| 412610014                                                                                                                                                                                                                                                                                                                                                                             | February 23, 2012 | Met with landowner and discussed transmission line and agreement. Landowner would like to review the agreement.                                                    |
|                                                                                                                                                                                                                                                                                                                                                                                       | March 14, 2012    | Spoke with landowner and set a follow-up appointment.                                                                                                              |
|                                                                                                                                                                                                                                                                                                                                                                                       | March 16, 2012    | Met with landowner and presented the agreement and the upcoming public meeting.                                                                                    |
|                                                                                                                                                                                                                                                                                                                                                                                       | March 31, 2012    | Spoke to landowner about agreement and public meeting.                                                                                                             |
|                                                                                                                                                                                                                                                                                                                                                                                       | April 10, 2012    | Spoke with landowner and discussed their questions. Set a follow-up meeting for the next day.                                                                      |
|                                                                                                                                                                                                                                                                                                                                                                                       | April 11, 2012    | Met with landowners who decided to sign the agreement.                                                                                                             |
| 412610010                                                                                                                                                                                                                                                                                                                                                                             | February 23, 2012 | Met with landowner and discussed transmission line and agreement. Landowner would like to discuss with family members and review the agreement.                    |
|                                                                                                                                                                                                                                                                                                                                                                                       | March 8, 2012     | Spoke with landowner who requested a follow-up in a couple of weeks:                                                                                               |
|                                                                                                                                                                                                                                                                                                                                                                                       | March 20, 2012    | Spoke with landowner who requested we meet later on in the day. Met with landowners, presented agreement and set a follow-up for the next day.                     |
|                                                                                                                                                                                                                                                                                                                                                                                       | March 21, 2012    | Met with landowners who decided to sign the agreement.                                                                                                             |

| ମାମ                                      | Data              | GanareliRiotas                                                                                                                                                          |
|------------------------------------------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                          | April 25, 2012    | Met with landowner to discuss remaining questions.                                                                                                                      |
| 412610013 ,                              | March 15, 2012    | Spoke with landowner about the transmission line and agreement. Landowner has concerns about compensation and requested a follow-up at a later date.                    |
|                                          | April 14, 2012    | Spoke to landowner about transmission line, agreement, questions and concerns. Landowner would like to review the agreement.                                            |
| 1                                        | April 27, 2012    | Met with landowners and presented agreement after which they decided to sign.                                                                                           |
| 412620004                                | February 16, 2012 | Met with landowner and discussed transmission line and agreement. Landowner would like to review the agreement:                                                         |
|                                          | February 20, 2012 | Spoke with landowner about agreement and related details.                                                                                                               |
|                                          | March 6, 2012     | Met with landowner and presented agreement. Landowner would like to further review the agreement.                                                                       |
|                                          | March 12, 2012    | Met with landowner who decided to sign the agreement.                                                                                                                   |
| 412610016                                | February 16, 2012 | Met with landowner and discussed transmission line and agreement. Landowner would like to review the agreement.                                                         |
|                                          | February 20, 2012 | Spoke with landowner about agreement and related details.                                                                                                               |
|                                          | March 6, 2012     | Met with landowner and presented agreement. Landowner would like to further review the agreement.                                                                       |
|                                          | March 12, 2012    | Met with landowner who decided to sign the agreement.                                                                                                                   |
| 412620098                                | February 16; 2012 | Met with landowner, and discussed transmission line and agreement. Landowner would like to review the agreement                                                         |
|                                          | February 20, 2012 | Spoke with landowner about agreement and related details.                                                                                                               |
| en e | March 6, 2012     | Met with landowner and presented agreement. Landowner would like to further review the agreement.                                                                       |
|                                          | March 12, 2012    | Met with landowner who decided to sign the agreement.                                                                                                                   |
| 412620091                                | April 5, 2012     | Met with landowners and discussed transmission line and agreement. Landowners have some questions and concerns and would like to review an<br>agreement.                |
|                                          | May 2, 2012       | Spoke with landowner who has decided to have the agreement reviewed by a lawyer.                                                                                        |
|                                          | May 16, 2012      | Met with landowner and discussed questions and concerns. Set a follow-up meeting for later in the week.                                                                 |
|                                          | May 19, 2012      | Met with landowner and discussed questions and concerns. Landowner would like to continue to consider the offer and set a follow-up appointment for the following week. |
|                                          | May 22, 2012      | Met with landowners who decided to sign the agreement.                                                                                                                  |
| 412620090                                | March 1, 2012     | Met with landowner and discussed transmission line and agreement. Landowner would like to review the agreement,                                                         |
|                                          | March 10, 2012    | Spoke with landowner and answered their questions. Landowner is open to participation:                                                                                  |
|                                          | March 13, 2012    | Spoke with landowner and scheduled an agreement presentation.                                                                                                           |
|                                          | March 15, 2012    | Met with landowner and presented agreement. Landowners requested a follow-up next week.                                                                                 |
|                                          | March 22, 2012    | Spoke with landowner and scheduled a follow-up appointment.                                                                                                             |
|                                          | March 24, 2012    | Met with landowners who decided to sign the agreement.                                                                                                                  |
|                                          | June 6, 2012      | Spoke with landowner and answered remaining questions about the transmission line.                                                                                      |

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| n IRIN -  | Data              | General/Notes                                                                                                                                          |
|-----------|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 412620089 | February 28, 2012 | Met with landowner and discussed transmission line and agreement. Landowner is not interested in participating.                                        |
| 412620075 | February 24, 2012 | Met with landowner and discussed transmission line and agreement. Landowner would like to review the agreement,                                        |
|           | March 1, 2012     | Spoke with landowner about transmission line. Landowner has concerns about placement of infrastructure.                                                |
|           | March 14, 2012    | Spoke with landowner and scheduled a follow-up appointment.                                                                                            |
|           | March 17, 2012    | Met with landowners and presented agreement. Landowners requested a follow up next week.                                                               |
|           | March 22, 2012    | Met with landowners who decided to sign the agreement.                                                                                                 |
| 412620054 | February 28, 2012 | Met with landowner and discussed transmission line and agreement. Landowner would like to review the agreement.                                        |
|           | October 23, 2012  | Met with landowner and presented agreement. Landowner had many questions after which, decided to sign the agreement.                                   |
|           | November 14, 2012 | Spoke to landowner about studies on the property. Landowner gave approval.                                                                             |
| 412620101 | February 25, 2012 | Met with landowner and discussed transmission line and agreement. Landowners would like to review the agreement                                        |
|           | April 14, 2012    | Left a message for landowners to schedule an agreement presentation.                                                                                   |
|           | April 19, 2012    | Spoke with landowner who suggested a follow-up the next day.                                                                                           |
|           | April 20, 2012    | Met with landowner and discussed questions and concerns in relation to the transmission line. Landowner is concerned about placement a infrastructure. |
|           | June 1, 2012      | Spoke with landowner who suggested a follow-up next week.                                                                                              |
| 3         | June 15, 2012     | Met with landowners and presented agreement. Landowners would like to have it reviewed by a lawyer.                                                    |
|           | June 27, 2012     | Spoke with landowners who are still awaiting legal review and will follow-up with me next week.                                                        |
|           | June 28, 2012     | Spoke to the landowners' lawyer and answered questions in relation to the transmission line. Lawyer provided comments                                  |
|           | August 22, 2012   | Spoke to the landowner who is no longer interested in participation.                                                                                   |
| 412620061 | March 1, 2012     | Met with landowner and discussed transmission line and agreement. Landowner would like to review the agreement.                                        |
| *. •      | April 19, 2012    | Met with landowner and delivered agreement. Landowner has decided to have the agreement reviewed by a lawyer and requested a follo next week.          |
|           | November 9, 2012  | Met with landowner and discussed transmission line and agreement. Landowner has some requests in regards to the agreement.                             |
|           | November 15, 2012 | Spoke with landowner who is still awaiting legal review.                                                                                               |
|           | December 10, 2012 | Landowner has decided against participation and is not open to future consultation.                                                                    |
| 412620063 | February 28,2012  | Met with landowner and discussed transmission line and agreements landowner would like to leview the agreements                                        |
|           | October 3, 2012   | Met with landowner and discussed transmission line and agreement. Landowner had concerns about placement of infrastructure.                            |
|           | October 17, 2012  | Spoke with landowner and scheduled an agreement presentation for later in the week.                                                                    |
|           | October 19, 2012  | Met with landowner and presented agreement and answered remaining questions. The landowner decided to sign the agreement                               |
|           | November 14-2012  | Spoke to landowne rebolitistudies on the procenty, landownergave approval.                                                                             |
| 412650070 | February 26, 2012 | Met with landowners and discussed transmission line and agreement. Landowner is not interested in participation.                                       |
|           |                   |                                                                                                                                                        |

| RIN       | Date                           | Generalitates                                                                                                                                |
|-----------|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
|           | <sup>•</sup> February 27, 2012 | Landowners have several questions in relation to the transmission line and agreement.                                                        |
|           | February 28, 2012              | Provided landowners with answers to their questions.                                                                                         |
|           | August 8, 2012                 | Met with landowner who decided to sign the agreement.                                                                                        |
| 412650008 | February 29, 2012              | Met with landowner and discussed transmission line and agreement. Landowner would like to review the agreement                               |
|           | March 20, 2012                 | Met with landowner and presented agreement after which, decided to sign.                                                                     |
| 412650007 | February 28, 2012              | Met with landowner and discussed transmission line, agreement and public meeting. Landowner would like to review the agreement.              |
|           | March 29, 2012                 | Spoke landowner who would like to have the agreement reviewed by a lawyer.                                                                   |
|           | June 1, 2012                   | Met with landowner who decided to sign the agreement.                                                                                        |
| 412650014 | February 26, 2012              | Met with landowners and discussed transmission line and agreement. Landowner is not interested in participation                              |
|           | February 27, 2012              | Landowners have several questions in relation to the transmission line and agreement.                                                        |
|           | February 28, 2012              | Provided landowners with answers to their questions.                                                                                         |
|           | August 8, 2012                 | Met with landowner who decided to sign the agreement.                                                                                        |
|           | October 5, 2012                | Spoke with landowner and discussed concerns about a study on the property and the infrastructure                                             |
| 412650006 | February 28, 2012              | Met with landowner and discussed transmission line and agreement. Landowner would like to review the agreement.                              |
|           | March 28, 2012                 | Met with landowner and delivered agreement. Landowner requested a follow-up at a later date.                                                 |
|           | April 14, 2012                 | Met with landowner who is awaiting legal review. Set a meeting for the following week.                                                       |
|           | April 20, 2012                 | Spoke to landowner and set an appointment for the following week.                                                                            |
|           | May 2, 2012                    | Met with landowner and discussed the agreement. Set a follow-up meeting.                                                                     |
|           | May 8, 2012                    | Met with landowner and discussed agreement and legal review.                                                                                 |
|           | May 9, 2012                    | Met with landowner and discussed agreement and legal review.                                                                                 |
|           | May 17, 2012                   | Spoke with landowner and scheduled a meeting for follow-up.                                                                                  |
|           | May 24, 2012                   | Met with landowners who decided to sign the agreement.                                                                                       |
|           | July 10, 2012                  | Spoke with landowner about a concern.                                                                                                        |
|           | July 17, 2012                  | Spoke with landowner and addressed landowners concern from previous discussion.                                                              |
| 412650013 | February 26, 2012              | Met with landowner and discussed transmission line and agreement. Landowner is not interested in participation                               |
|           | April 3, 2012                  | Met with landowner and discussed transmission line, wind project and agreement: Landowners are opposed                                       |
|           | June 6, 2012                   | Met with landowner and discussed agreement: Landowner is now interested in considering participation.                                        |
|           | June 13, 2012                  | Met with landowner and discussed transmission line and agreement. Landowner is open to participation and arranged a follow-up for next week. |
|           | June 21, 2012                  | Met with landowner and discussed remaining concerns. Follow-up scheduled for the following day.                                              |
|           | June 22, 2012                  | Met with landowners who decided to sign the agreement.                                                                                       |

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| RIN       | Dite               | General Notes                                                                                                                          |
|-----------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| 412650005 | February 29, 2012  | Met with landowner and discussed transmission line and agreement. Landowner would like to review the agreement.                        |
| 4. 4      | April 3, 2012      | Met with landowner and scheduled a lease presentation.                                                                                 |
|           | April 4, 2012      | Met with landowner and presented agreement. Landowner decided to sign agreement.                                                       |
| 412650004 | April 2, 2012      | Met with landowner and presented agreement. Landowner decided to sign the agreement.                                                   |
| 412650021 | March 7, 2012      | Met with landowner and discussed transmission line and agreement. Landowner is not interested in participation.                        |
| š. 1      | March 21, 2012     | Met with landowner and discussed transmission line and agreement. Landowner is now open to participation.                              |
|           | April 12, 2012     | Met with landowner who requested a return visit at another time.                                                                       |
|           | September 13, 2012 | Met with landowners and presented agreement. Landowners decided to sign the agreement.                                                 |
| 412650003 | March 7, 2012      | Met with landowner and discussed transmission line and agreement. Landowner would like to review the agreement.                        |
|           | March 13, 2012     | Spoke to landowner to schedule agreement presentation. Landowner to confirm tomorrow.                                                  |
|           | May 2, 2012        | Met with landowner and presented agreement. Landowner signed agreement.                                                                |
| 412650009 | March 1, 2012      | Met with landowner and discussed transmission line and agreement. Landowner would like to review the agreement.                        |
|           | March 13, 2012     | Met with landowner and presented the agreement. Landowner would like some time to consider the offer.                                  |
|           | March 14, 2012     | Met with landowner who decided to sign the agreement.                                                                                  |
| 412660036 | March 9, 2012      | Met with landowner and discussed transmission line and agreement: Landowner would like to review the agreement.                        |
|           | March 20, 2012     | Met with landowner and presented agreement. Landowner signed agreement.                                                                |
| 412660035 | March 9, 2012      | Met with landowner and discussed transmission line and agreement. Landowner would like to review the agreement.                        |
|           | March 20, 2012     | Met with landowner and presented agreement. Landowner signed agreement.                                                                |
| 412660038 | March 22, 2012     | Met with family member who felt the landowner would not be interested.                                                                 |
|           | May 2, 2012        | Spoke to landowner about transmission line, agreement and lega(review                                                                  |
|           | July 9, 2012       | Met with landowners who decided to sign the agreement.                                                                                 |
| 412660040 | February 24, 2012  | Met with landowners and discussed transmission line and agreement. Landowners would like to review an agreement and had some requests. |
|           | April 12, 2012     | Met with landowners and presented agreement. The landowners have decided to seek legal review.                                         |
| L         | May 10, 2012       | Met with landowners and discussed agreement and legal review. Landowners are open to participation.                                    |
|           | June 13, 2012      | Spoke with landowner about legal review.                                                                                               |
| 1. A      | June 21, 2012      | Spoke with landowner who is awaiting legal review.                                                                                     |
|           | August 9, 2012     | Met with landowners who decided to sign the agreement.                                                                                 |
| 412650054 | March 22, 2012     | Met with family member who felt the landowner would not be interested.                                                                 |

| CRIS)     | කාල               | General                                                                                                                                               |
|-----------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
|           | May 2, 2012       | Spoke to landowner about transmission line, agreement and legal review.                                                                               |
|           | July 9, 2012      | Met with landowners who decided to sign the agreement.                                                                                                |
| 412660060 | February 23, 2012 | Met with landowner and discussed transmission line and agreement. Landowner would like to review the agreement.                                       |
|           | May 2, 2012       | Spoke to landowner about transmission line, agreement and legal review.                                                                               |
|           | July 9, 2012      | Met with landowners who decided to sign the agreement.                                                                                                |
| 412660059 | February 22, 2012 | MawwintendownancholdseusseducinsmissionIncendeg.canant.lendownarsvergasiedofollow-epilaerindiaecening.withenotra<br>Indovingsklandowngaswara.positiva |

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Filed: 2013-04-03 Goshen Wind, Inc. Exhibit H Tab 1 Schedule 1 Page 1 of 1

#### SYSTEM IMPACT ASSESSMENT

- 51. The final System Impact Assessment (**"SIA**") for the Applicant was issued by the IESO on December 23, 2011, a copy of which is attached at Exhibit H, Tab 1, Schedule 2.
- 52. The SIA concluded that the GWEC and the Facility do not have a material adverse impact on the reliability of the IESO-controlled grid, nor will they cause new violations of existing circuit breaker interrupting capabilities on the IESO-controlled grid. The Applicant will construct the Facility according to the recommendations and conditions outlined in the SIA.

Filed: 2013-04-03 Goshen Wind, Inc. Exhibit H Tab 1 Schedule 2 Pages: 62

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#### SYSTEM IMPACT ASSESSMENT

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# System Impact Assessment Report

## CONNECTION ASSESSMENT & APPROVAL PROCESS

**Final Report** 

CAA ID: 2011-444 Project: Goshen Wind Energy Centre Applicant: Goshen Wind, Inc

Market Facilitation Department Independent Electricity System Operator

Date: December 23, 2011

Document ID Document Name Issue Reason for Issue Effective Date

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IESO\_REP\_0760 System Impact Assessment Report Final Report Final Issue December 23, 2011

### System Impact Assessment Report

#### **Acknowledgement**

The IESO wishes to acknowledge the assistance of Hydro One in completing this assessment.

#### **Disclaimers**

#### IESO

This report has been prepared solely for the purpose of assessing whether the connection applicant's proposed connection with the IESO-controlled grid would have an adverse impact on the reliability of the integrated power system and whether the IESO should issue a notice of conditional approval or disapproval of the proposed connection under Chapter 4, section 6 of the Market Rules.

Conditional approval of the proposed connection is based on information provided to the IESO by the connection applicant and Hydro One at the time the assessment was carried out. The IESO assumes no responsibility for the accuracy or completeness of such information, including the results of studies carried out by Hydro One at the request of the IESO. Furthermore, the conditional approval is subject to further consideration due to changes to this information, or to additional information that may become available after the conditional approval has been granted.

If the connection applicant has engaged a consultant to perform connection assessment studies, the connection applicant acknowledges that the IESO will be relying on such studies in conducting its assessment and that the IESO assumes no responsibility for the accuracy or completeness of such studies including, without limitation, any changes to IESO base case models made by the consultant. The IESO reserves the right to repeat any or all connection studies performed by the consultant if necessary to meet IESO requirements.

Conditional approval of the proposed connection means that there are no significant reliability issues or concerns that would prevent connection of the project to the IESO-controlled grid. However, the conditional approval does not ensure that a project will meet all connection requirements. In addition, further issues or concerns may be identified by the transmitter(s) during the detailed design phase that may require changes to equipment characteristics and/or configuration to ensure compliance with physical or equipment limitations, or with the Transmission System Code, before connection can be made.

This report has not been prepared for any other purpose and should not be used or relied upon by any person for another purpose. This report has been prepared solely for use by the connection applicant and the IESO in accordance with Chapter 4, section 6 of the Market Rules. The IESO assumes no responsibility to any third party for any use, which it makes of this report. Any liability which the IESO may have to the connection applicant in respect of this report is governed by Chapter 1, section 13 of the Market Rules. In the event that the IESO provides a draft of this report to the connection applicant, the connection applicant must be aware that the IESO may revise drafts of this report at any time in its sole discretion without notice to the connection applicant. Although the IESO will use its best efforts to advise you of any such changes, it is the responsibility of the connection applicant to ensure that the most recent version of this report is being used.

#### **Hydro One**

The results reported in this report are based on the information available to Hydro One, at the time of the study, suitable for a System Impact Assessment of this connection proposal.

The short circuit and thermal loading levels have been computed based on the information available at the time of the study. These levels may be higher or lower if the connection information changes as a result of, but not limited to, subsequent design modifications or when more accurate test measurement data is available.

This study does not assess the short circuit or thermal loading impact of the proposed facilities on load and generation customers.

In this report, short circuit adequacy is assessed only for Hydro One circuit breakers. The short circuit results are only for the purpose of assessing the capabilities of existing Hydro One circuit breakers and identifying upgrades required to incorporate the proposed facilities. These results should not be used in the design and engineering of any new or existing facilities. The necessary data will be provided by Hydro One and discussed with any connection applicant upon request.

The ampacity ratings of Hydro One facilities are established based on assumptions used in Hydro One for power system planning studies. The actual ampacity ratings during operations may be determined in real-time and are based on actual system conditions, including ambient temperature, wind speed and facility loading, and may be higher or lower than those stated in this study.

The additional facilities or upgrades which are required to incorporate the proposed facilities have been identified to the extent permitted by a System Impact Assessment under the current IESO Connection Assessment and Approval process. Additional facility studies may be necessary to confirm constructability and the time required for construction. Further studies at more advanced stages of the project development may identify additional facilities that need to be provided or that require upgrading.

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# **Executive Summary**

# **Project Description**

Goshen Wind, Inc (the "connection applicant") is developing a new 102 MW wind power generation farm, Goshen Wind Energy Centre (the "project"), in Dashwood, Huron County, Ontario. The project will be connected to Hydro One's 115 kV circuit L7S, about 22 km from Seaforth TS. The project has been awarded a Power Purchase Agreement under the Feed-In Tariff (FIT) program with the Ontario Power Authority. The scheduled in-service date is April 1, 2013.

## Findings

- 1. The proposed connection arrangement and equipment for the project are acceptable to the IESO.
- 2. The asymmetrical fault current at Bruce A 230 kV switchyard before and after the incorporation of the project will exceed the interrupting capability of the existing breakers. Hydro One has planned to replace the Bruce 230 kV breakers to improve fault current interrupting capability in the long term. Before the circuit breakers are replaced, temporary operational mitigation measures have been developed by Hydro One in collaboration with the IESO as discussed in Section 4 of this report.
- 3. The projects are connecting in the Bruce Area where connected generation projects participate in the Bruce Special Protection Scheme (BSPS) as discussed in Section 6.4 of this report.
- 4. The reactive power capability of the Wind Turbine Generators (WTG) along with the impedance between the wind turbine generators and the IESO controlled grid results in a reactive power deficiency at the connection point which has to be compensated with additional reactive power devices as discussed in Section 6.5 of this report.
- 5. The functions of the proposed wind farm control system meet the requirements in the Market Rules as discussed in Section 3.6 of this report.
- 6. The voltage performance with the proposed the project is expected to be acceptable under both precontingency and post-contingency operating conditions
- Circuit S2S will be required to operate open-loop under certain conditions after the integration of the committed generation in the Bruce Area to prevent thermal overloading as discussed in section 6.7 of this report.
- 8. Under emergency operation when circuit L7S is supplied from Detweiler TS, the pre-contingency flow during light load conditions may exceed the thermal rating of L7S after the connection of the project, and the generation of the project may need to be curtailed.
- 9. The WTGs of the project and the power system are expected to be transiently stable following recognized fault conditions.
- 10. The proposed WTGs are expected to remain connected to the grid for recognized system contingencies that do not remove the project by configuration.
- 11. Protection adjustments to accommodate the project have no adverse impact on the reliability of IESOcontrolled grid.
- 12. In the event of high flows eastward towards Toronto, there is a low probability of congestion that may require the connection applicant to curtail its output as discussed in Section 6.7 of this report.

## **IESO Requirements for Connection**

### **Transmitter Requirements**

The following requirements are applicable to Hydro One (the "transmitter") for the incorporation of the project:

- (1) The transmitter shall modify the existing BSPS to incorporate the project.
- (2) The transmitter shall modify the protections on circuit L7S and the 115 kV Seaforth TS to incorporate the project.

Modifications to protection relays after this SIA is finalized must be submitted to IESO as soon as possible or at least six (6) months before any modifications are to be implemented. If those modifications result in adverse reliability impacts, the connection applicant and the transmitter must develop mitigation solutions.

### Applicant Requirements

*Specific Requirements:* The following *specific* requirements are applicable for the incorporation of the project. Specific requirements pertain to the level of reactive compensation needed, operation restrictions, special protection system, upgrading of equipment and any project specific items not covered in the *general* requirements.

(1) Special protection system facilities must be installed at the project to accept a single pair (A & B) of G/R signals from the BSPS, and disconnect the project from the system with no intentional time delay when armed for G/R following a triggering contingency. These special protection system facilities must also comply with the NPCC Reliability Reference Directory #7 for Type 1 special protection systems. In particular, if the SPS is designed to have 'A' and 'B' protection at a single location for redundancy, they must be on different non-adjacent vertical mounting assemblies or enclosures. Two independent trip coils are required on the breakers selected for G/R. The applicant must provide two dedicated communication channels, separated physically and geographically diverse, between the project and the Bruce NGS.

To disconnect the project from the system for G/R, simultaneous tripping of the 115 kV breakers at both the connection point and Goshen Collector station shall be initiated with no accompany breaker failure response. After being tripped by the BSPS, the closing of the breakers is not permitted until approval is obtained from the IESO. Alternative solutions to disconnect the project from the system for G/R may be acceptable upon the approval of the IESO.

(2) The project is required to have the capability to inject or withdraw reactive power continuously (i.e. dynamically) at a connection point up to 33% of its rated active power at all levels of active power output.

Based on the equivalent collector impedance parameters provided by the connection applicant, a static capacitive compensation device of 14 Mvar@ 34.5 kV installed at the collector bus of the project would satisfy the reactive power requirement. The required capacitive compensation would need to be arranged into approximately equal steps to allow for flexibility in adjustment of reactive power production.

The connection applicant has the obligation to ensure that the wind farm has the capability to meet the Market Rules requirement at the connection point and be able to confirm this capability during the commission tests.

- (3) The wind farm voltage control system shall be designed as per the philosophy described in Section 6.6 of this report.
- (4) The connection applicant is required to provide a finalized copy of the functional description of the wind farm control systems for the IESO's approval before the project is allowed to connect.

*General Requirements:* The connection applicant shall satisfy all applicable requirements and standards specified in the Market Rules and the Transmission System Code. The following requirements summarize some of the general requirements that are applicable to the proposed project, and presented in detail in section 2 of this report.

(1) The connection applicant shall ensure that the project has the capability to operate continuously between 59.4Hz and 60.6Hz and for a limited period of time in the region above straight lines on a log-linear scale defined by the points (0.0s, 57.0Hz), (3.3s, 57.0Hz), and (300s, 59.0Hz).

The project shall respond to frequency increase by reducing the active power with an average droop based on maximum active power adjustable between 3% and 7% and set at 4%. Regulation deadband shall not be wider than  $\pm$  0.06%. The project shall respond to system frequency decline by temporarily boosting its active power output for some time (i.e. 10 s) by recovering energy from the rotating blades, if this technology is available.

(2) The connection applicant shall ensure that the project has the capability to supply continuously all levels of active power output for 5% deviations in terminal voltage.

The project shall inject or withdraw reactive power continuously (i.e. dynamically) at a connection point up to 33% of its rated active power at all levels of active power output except where a lesser continually available capability is permitted by the IESO.

The project shall have the capability to regulate automatically voltage within  $\pm 0.5\%$  of any set point within  $\pm 5\%$  of rated voltage at a point whose impedance (based on rated apparent power and rated voltage) is not more than 13% from the highest voltage terminal. If the AVR target voltage is a function of reactive output, the slope  $\Delta V/\Delta Q$ max shall be adjustable to 0.5%. The response of the project for voltage changes shall be similar or better than that of a generation facility with a synchronous generation unit and an excitation system that meets the requirements of Appendix 4.2.

- (3) The project shall have the capability to ride through routine switching events and design criteria contingencies assuming standard fault detection, auxiliary relaying, communication, and rated breaker interrupting times unless disconnected by configuration.
- (4) The connection applicant shall ensure that the 115 kV equipment is capable of continuously operating between 113 kV and 127 kV. Protective relaying must be set to ensure that transmission equipment remains in-service for voltages between 94% of the minimum continuous value and 105% of the maximum continuous value specified in Appendix 4.16 the Market Rules.
- (5) The connection applicant shall ensure that the connection equipment is designed to be fully operational in all reasonably foreseeable ambient temperature conditions. The connection equipment must also be designed so that the adverse effects of its failure on the IESO-controlled grid are mitigated. This includes ensuring that all circuit breakers fail in the open position.
- (6) The connection applicant shall install at the project a disturbance recording device with clock synchronization that meets the technical specifications provided by the transmitter.
- (7) The connection applicant shall ensure that the new equipment at the project be designed to sustain the fault levels in the area. If any future system changes result in an increased fault level higher than the equipment's capability, the connection applicant is required to replace the equipment with

higher rated equipment capable of sustaining the increased fault level, up to maximum fault level specified in Appendix 2 of the Transmission System Code.

Fault interrupting devices must be able to interrupt fault currents at the maximum continuous voltage of 127 kV.

- (8) Appendix 2 of the Transmission System Code states that the maximum rated interrupting time for the 115 kV breakers must be 5 cycles or less. Thus, the connection applicant shall ensure that the installed breakers meet the required interrupting time specified in the Transmission System Code.
- (9) The connection applicant shall ensure that the new protection systems at the project are designed to satisfy all the requirements of the Transmission System Code and any additional requirements identified by the transmitter.

As currently assessed by the IESO, the project is not part of the BPS and, therefore it is not designated as essential to the power system.

The protection systems within the project must only trip the appropriate equipment required to isolate the fault.

The autoreclosure of the high voltage breakers at the connection point must be blocked. Upon its opening for a contingency, the high voltage breaker must be closed only after the IESO approval is granted.

Any modifications made to protection relays after this SIA is finalized must be submitted to the IESO as soon as possible or at least six (6) months before any modifications are to be implemented on the existing protection systems.

- (10) The connection applicant shall ensure that the telemetry requirements are satisfied as per the applicable Market Rules requirements. The determination of telemetry quantities and telemetry testing will be conducted during the IESO Facility Registration/Market Entry process.
- (11) If revenue metering equipment is being installed as part of this project, the connection applicant should be aware that revenue metering installations must comply with Chapter 6 of the IESO Market Rules. For more details the connection applicant is encouraged to seek advice from their Metering Service Provider (MSP) or from the IESO metering group.
- (12) The project must be compliant with applicable reliability standards set by the North American Electric Reliability Corporation (NERC) and the North East Power Coordinating Council (NPCC) that are in effect in Ontario as mapped in the following link:

http://www.ieso.ca/imoweb/ircp/orcp.asp.

- (13) The connection applicant will be required to be a restoration participant. Details regarding restoration participant requirements will be finalized at the Facility Registration/Market Entry Stage.
- (14) The connection applicant must complete the IESO Facility Registration/Market Entry process in a timely manner before IESO final approval for connection is granted.

Models and data, including any controls that would be operational, must be provided to the IESO at least seven months before energization to the IESO-controlled grid. This includes both PSS/E and DSA software compatible mathematical models. The models and data may be shared with other reliability entities in North America as needed to fulfill the IESO's obligations under the Market Rules, NPCC and NERC rules.

The connection applicant must also provide evidence to the IESO confirming that the equipment installed meets the Market Rules requirements and matches or exceeds the performance predicted in this assessment. This evidence shall be either type tests done in a controlled environment or commissioning tests done on-site. The evidence must be supplied to the IESO within 30 days after completion of commissioning tests. If the submitted models and data differ materially from the ones used in this assessment, then further analysis of the project will need to be done by the IESO.

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(15) The Market Rules governing the connection of renewable generation facilities in Ontario are currently being reviewed through the SE-91 stakeholder initiative and, therefore, new connection requirements (in addition to those outlined in the SIA), may be imposed in the future. The connection applicant is encouraged to follow developments and updates through the following link: http://www.ieso.ca/imoweb/consult/consult se91.asp.

## Notification of Conditional Approval

The proposed connection of the project, operating up to 102 MW, subject to the requirements specified in this report, is expected to have no material adverse impact on the reliability of the integrated power system.

It is recommended that a *Notification of Conditional Approval for Connection* be issued for the project subject to the implementation of the requirements outlined in this report.

- End of Section -

# 1. Project Description

Goshen Wind, Inc has proposed to develop a 102 MW wind farm located in Dashwood, Huron County ON, known as Goshen Wind Energy Centre which has been awarded a Power Purchase Agreement for FIT program with Ontario Power Authority. It is expected that commercial operation of the project will start on April 1, 2013.

The project will consist of a total of 62 GE1.6 MW Wind Turbine Generators (WTGs) rated 1.62 MW each plus one WTG de-rated to 1.56 MW. Each WTG will be connected to a 34.5 kV collector feeder through a 690 V/34.5 kV pad-mounted transformer. There are totally 4 collector feeders: three with 16 WTGs and one with 15 WTGs. Each feeder will be connected to the 34.5 kV bus via a circuit breaker at the 115 kV interconnection substation of the project.

At the interconnection substation, the 34.5 kV bus will be connected to a 34.5/115 kV step-up transformer through a circuit breaker. A motor operated disconnect switch and a circuit breaker will be installed at the high voltage side of the step-up transformer and connect the transformer to the 115 kV tap line.

The 22 km overhead tap line will be connected to the Hydro One's 115 kV line L7S approximately 22 km from Seaforth TS. A motor operated disconnect switch and a circuit breaker will be installed at the connection point. The single line diagram of the project is shown in Figure 1, Appendix A.

- End of Section -

# 2. General Requirements

The connection applicant shall satisfy all applicable requirements and standards specified in the Market Rules and the Transmission System Code. The following sections highlight some of the general requirements that are applicable to the proposed project.

## 2.1 Frequency/Speed Control

As per Appendix 4.2 of the Market Rules, the connection applicant shall ensure that the project has the capability to operate continuously between 59.4 Hz and 60.6 Hz and for a limited period of time in the region above straight lines on a log-linear scale defined by the points (0.0 s, 57.0 Hz), (3.3 s, 57.0 Hz), and (300 s, 59.0 Hz), as shown in the following figure.



The project shall respond to frequency increase by reducing the active power with an average droop based on maximum active power adjustable between 3% and 7% and set at 4%. Regulation deadband shall not be wider than  $\pm 0.06\%$ . The project shall respond to system frequency decline by temporarily boosting its active power output for some time (i.e. 10 s) by recovering energy from the rotating blades. This usually refers to "inertia emulation control" function within the wind farm control system. It is not required for wind facilities to provide a sustained response to system frequency decline. The connection applicant will need to indicate to the IESO whether the function of inertia emulation control is commercially available for the proposed type of wind turbine generator at the time when the wind farm comes into service. If this function is available, the connection applicant is required to implement it before the project can be placed in-service. If this function is commercially unavailable, the IESO reserves the right to ask the connection applicant to install this function in the future, once it is commercially available for the proposed type of wind turbine generator.

# 2.2 Reactive Power/Voltage Regulation

The project is directly connected to the IESO-controlled grid, and thus, the connection applicant shall ensure that the project has the capability to:

- supply continuously all levels of active power output for 5% deviations in terminal voltage. Rated active power is the smaller output at either rated ambient conditions (e.g. temperature, head, wind

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speed, solar radiation) or 90% of rated apparent power. To satisfy steady-state reactive power requirements, active power reductions to rated active power are permitted;

- inject or withdraw reactive power continuously (i.e. dynamically) at a connection point up to 33% of its rated active power at all levels of active power output except where a lesser continually available capability is permitted by the IESO. If necessary, shunt capacitors must be installed to offset the reactive power losses within the project in excess of the maximum allowable losses. If generators do not have dynamic reactive power capabilities, dynamic reactive compensation devices must be installed to make up the deficient reactive power;
- regulate automatically voltage within  $\pm 0.5\%$  of any set point within  $\pm 5\%$  of rated voltage at a point whose impedance (based on rated apparent power and rated voltage) is not more than 13% from the highest voltage terminal. If the AVR target voltage is a function of reactive output, the slope  $\Delta V/\Delta Qmax$  shall be adjustable to 0.5%. The response of the project for voltage changes shall be similar to or better than the response of a generation facility with a synchronous generation unit and an excitation system that meets the requirements of Appendix 4.2.

## 2.3 Voltage Ride Though Capability

The project shall have the capability to ride through routine switching events and design criteria contingencies assuming standard fault detection, auxiliary relaying, communication, and rated breaker interrupting times unless disconnected by configuration.

# 2.4 Voltage

Appendix 4.1 of the Market Rules states that under normal operating conditions, the voltages in the 115 kV system in southern Ontario are maintained within the range of 113 kV to 127 kV. Thus, the IESO requires that the 115 kV equipment in southern Ontario must have a maximum continuous voltage rating of at least 127 kV.

Protective relaying must be set to ensure that transmission equipment remains in-service for voltages between 94% of the minimum continuous value and 105% of the maximum continuous value specified in Appendix 4.10f the Market Rules.

## 2.5 Connection Equipment Design

The connection applicant shall ensure that the connection equipment is designed to be fully operational in all reasonably foreseeable ambient temperature conditions. The connection equipment must also be designed so that the adverse effects of its failure on the IESO-controlled grid are mitigated. This includes ensuring that all circuit breakers fail in the open position.

# 2.6 Disturbance Recording

The connection applicant is required to install at the project a disturbance recording device with clock synchronization that meets the technical specifications provided by the transmitter. The device will be used to monitor and record the response of the project to disturbances on the 115 kV system in order to verify the dynamic response of generators. The quantities to be recorded, the sampling rate and the trigger settings will be provided by the transmitter.

### 2.7 Fault Level

The Transmission System Code requires the new equipment to be designed to sustain the fault levels in the area where the equipment is installed. Thus, the connection applicant shall ensure that the new equipment at the project is designed to sustain the fault levels in the area. If any future system changes result in an increased fault level higher than the equipment's capability, the connection applicant is required to replace the equipment with higher rated equipment capable of sustaining the increased fault level, up to maximum fault level specified in the Transmission System Code. Appendix 2 of the Transmission System Code establishes the maximum fault levels for the transmission system. For the 115 kV system, the maximum 3 phase and single line to ground symmetrical fault levels are 50 kA.

Fault interrupting devices must be able to interrupt fault currents at the maximum continuous voltage of 127 kV.

### 2.8 Breaker Interrupting Time

Appendix 2 of the Transmission System Code states that the maximum rated interrupting time for the 115 kV breakers must be 5 cycles or less. Thus, the connection applicant shall ensure that the installed breakers meet the required interrupting time specified in the Transmission System Code.

### 2.9 **Protection System**

The connection applicant shall ensure that the protection systems are designed to satisfy all the requirements of the Transmission System Code as specified in Schedules E, F and G of Appendix 1 and any additional requirements identified by the transmitter. New protection systems must be coordinated with the existing protection systems.

Facilities that are essential to the power system must be protected by two redundant protection systems according to section 8.2.1a of the Transmission System Code. These redundant protections systems must satisfy all requirements of the Transmission System Code, and in particular, they must not use common components, common battery banks or common secondary CT or PT windings. As currently assessed by the IESO, this project is not on the current Bulk Power System list, and therefore, is not considered essential to the power system. In the future, as the electrical system evolves, this project may be placed on the BPS list.

The protection systems within the project must only trip the appropriate equipment required to isolate the fault. After the project begins commercial operation, if an improper trip of the 115 kV circuit L7S occurs due to events within the project, the project may be required to be disconnected from the IESO-controlled grid until the problem is resolved.

The autoreclosure of the high voltage breakers at the connection point must be blocked. Upon its opening for a contingency, the high voltage breaker must be closed only after the IESO approval is granted.

Any modifications made to protection relays after this SIA is finalized must be submitted to the IESO as soon as possible or at least six (6) months before any modifications are to be implemented on the existing protection systems. If those modifications result in adverse impacts, the connection applicant and the transmitter must develop mitigation solutions

### 2.10 Telemetry

If applicable according to Section 7.3 of Chapter 4 of the Market Rules, the connection applicant shall provide to the IESO the applicable telemetry data listed in Appendix 4.15 of the Market Rules on a continual basis. The data shall be provided in accordance with the performance standards set forth in Appendix 4.19, subject to Section 7.6A of Chapter 4 of the Market Rules. The data is to consist of certain equipment status and operating quantities which will be identified during the IESO Facility Registration/Market Entry Process.

To provide the required data, the connection applicant must install at this project monitoring equipment that meets the requirements set forth in Appendix 2.2 of Chapter 2 of the Market rules. As part of the IESO Facility Registration/Market Entry process, the connection applicant must also complete end to end testing of all necessary telemetry points with the IESO to ensure that standards are met and that sign conventions are understood. All found anomalies must be corrected before IESO final approval to connect any phase of the project is granted.

### 2.11 Revenue Metering

If revenue metering equipment is being installed as part of this project, the connection applicant should be aware that revenue metering installations must comply with Chapter 6 of the IESO Market Rules. For more details the connection applicant is encouraged to seek advice from their Metering Service Provider (MSP) or from the IESO metering group.

### 2.12 Reliability Standards

Prior to connecting to the IESO controlled grid, the project must be compliant with the applicable reliability standards established by the North American Electric Reliability Corporation (NERC) and reliability criteria established by the Northeast Power Coordinating Council (NPCC) that are in effect in Ontario. A mapping of applicable standards, based on the proponent's/connection applicant's market role/OEB license can be found here: <u>http://www.ieso.ca/imoweb/ircp/orcp.asp</u>

This mapping is updated periodically after new or revised standards become effective in Ontario.

The current versions of these NERC standards and NPCC criteria can be found at the following websites: <u>http://www.nerc.com/page.php?cid=2|20</u> <u>http://www.npcc.org/documents/regStandards/Directories.aspx</u>

The IESO monitors and assesses market participant compliance with a selection of applicable reliability standards each year as part of the Ontario Reliability Compliance Program. To find out more about this program, write to <u>orcp@ieso.ca</u> or visit the following webpage: <u>http://www.ieso.ca/imoweb/ircp/orcp.asp</u>

Also, to obtain a better understanding of the applicable reliability compliance obligations and engage in the standards development process, we recommend that the connection applicant join the IESO's Reliability Standards Standing Committee (RSSC) or at least subscribe to their mailing list by contacting <u>rssc@ieso.ca</u>. The RSSC webpage is located at:

http://www.ieso.ca/imoweb/consult/consult\_rssc.asp.

### 2.13 **Restoration Participant**

According to the Market Manual 7.8 which states restoration participant criteria and obligations, the connection applicant will be required to be a restoration participant. Details regarding restoration participant requirements will be finalized at the Facility Registration/Market Entry Stage.

# 2.14 Facility Registration/Market Entry

The connection applicant must complete the IESO Facility Registration/Market Entry process in a timely manner before IESO final approval for connection is granted.

Models and data, including any controls that would be operational, must be provided to the IESO. This includes both PSS/E and DSA software compatible mathematical models representing the new equipment for further IESO, NPCC and NERC analytical studies. The models and data may be shared with other reliability entities in North America as needed to fulfill the IESO's obligations under the Market Rules, NPCC and NERC rules. The connection applicant may need to contact the software manufacturers directly, in order to have the models included in their packages. This information should be submitted at least seven months before energization to the IESO-controlled grid, to allow the IESO to incorporate this project into IESO work systems and to perform any additional reliability studies.

As part of the IESO Facility Registration/Market Entry process, the connection applicant must provide evidence to the IESO confirming that the equipment installed meets the Market Rules requirements and matches or exceeds the performance predicted in this assessment. This evidence shall be either type tests done in a controlled environment or commissioning tests done on-site. In either case, the testing must be done not only in accordance with widely recognized standards, but also to the satisfaction of the IESO. Until this evidence is provided and found acceptable to the IESO, the Facility Registration/Market Entry process will not be considered complete and the connection applicant must accept any restrictions the IESO may impose upon this project's participation in the IESO-administered markets or connection to the IESO-controlled grid. The evidence must be supplied to the IESO within 30 days after completion of commissioning tests. Failure to provide evidence may result in disconnection from the IESO-controlled grid.

If the submitted models and data differ materially from the ones used in this assessment, then further analysis of the project will need to be done by the IESO.

## 2.15 Other Connection Requirements

The Market Rules governing the connection of renewable generation facilities in Ontario are currently being reviewed through the SE-91 stakeholder initiative and, therefore, new connection requirements (in addition to those outlined in the SIA), may be imposed in the future. The connection applicant is encouraged to follow developments and updates through the following link:

http://www.ieso.ca/imoweb/consult/consult\_se91.asp.

-End of Section-

# 3. Data Verification

### 3.1 Connection Arrangement

The connection arrangement of the project shown in Figure 1 will not reduce the level of reliability of the integrated power system and is, therefore, acceptable to the IESO.

## 3.2 GE 1.6 MW WTG

The GE 1.6 MW WTG is a three bladed, variable pitch, variable speed, and partial conversion wind turbine doubly-fed induction generator system. Its specifications are shown in Table 1.

Table 1: Specifications of GE 1.6 MW WTG

| Type      | Rated    | Rated | Rated |       | គល់( <u>រាក</u> ស៊ | 107  | Qmrs        | Qmbi   | Xa   |
|-----------|----------|-------|-------|-------|--------------------|------|-------------|--------|------|
|           | Voltager | MVA   | MW    | MIVA. | R                  | X    | _ ([MNEE]). | (MVAF) | (PI) |
| GE 1.6 MW | 690 V    | 1.8   | 1.62  | 1.8   | 0.76%              | 5.7% | 0.784       | -0.784 | 0.33 |

### Voltage Ride-Though Capability

The GE 1.6 MW wind turbine provides a voltage ride-through option ZVRT. During a voltage drop/raise, the minimum time for a WTG to remain online is shown in Table 2. The proposed turbines will use this option.

Table 2: WTG voltage ride-through capability

| Voltage Range (% of base voltage)    | A Minimum time for Wiles to Remain Online (s) |
|--------------------------------------|-----------------------------------------------|
| V<15                                 | 0.2                                           |
| 15 <v<30< td=""><td>0.7</td></v<30<> | 0.7                                           |
| 30 <v<50< td=""><td>1.2</td></v<50<> | 1.2                                           |
| 50 <v<75< td=""><td>1.9</td></v<75<> | 1.9                                           |
| 110 < V < 115                        | 1.0                                           |
| V>115                                | 0.1                                           |

The low voltage ride-through (LVRT) capability of the proposed WTGs was verified by performing transient stability studies as detailed in Section 6.10.

### Frequency Ride-Through Capability

The GE 1.6 MW WTG is able to operate continuously for a frequency range of  $\pm$  5% (57 to 63 Hz).

The Market Rules state that the generation facility directly connecting to the IESO-controlled grid shall operate continuously between 59.4Hz and 60.6Hz and for a limited period of time in the region above straight lines on a log-linear scale defined by the points (0.0s, 57.0Hz), (3.3s, 57.0Hz), and (300s, 59.0Hz).

Therefore, the frequency ride-through capability of the proposed WTGs meets the Market Rules' requirements.

## 3.3 Main Step-Up Transformers

Table 3: Main step-up transformer data

| Ünit | Rating (MVA)<br>(ONAN/ONAF/ONAF) | Positive Sequence<br>Impedance (pl)<br>S <sub>E</sub> =69 MVA | Config<br>(HNY) | utatilan<br>ILW | 2000 Sequence<br>Impedance (pu)<br>Sj≓@ MV& | Пар                                         |
|------|----------------------------------|---------------------------------------------------------------|-----------------|-----------------|---------------------------------------------|---------------------------------------------|
| T2   | 69/92/115MVA                     | 0.0019+j0.0799                                                | Y               | Δ               | 0.0017+j0.0719                              | OLTC@HV: 5<br>steps, 2.5% of 121<br>kV each |

## 3.4 Collector System

Table 4: Equivalent impedance of collectors

| Circuit | Unit# | MW    | - Positivo | Sequence Im<br>S <sub>B</sub> =100MiV | pedance | tZero-Sec<br>OU | juanœlinij<br>S <sub>i3</sub> ≡l‱n | oetlantee <sup>s</sup><br>VZJ) |
|---------|-------|-------|------------|---------------------------------------|---------|-----------------|------------------------------------|--------------------------------|
|         |       |       | R          |                                       | B       | R               | X                                  | B                              |
| 1       | G1    | 25.92 | 0.088      | 0.095                                 | 0.024   | -               | -                                  | -                              |
| 2       | G2    | 25.92 | 0.090      | 0.094                                 | 0.023   | -               | -                                  | -                              |
| 3       | G3    | 25.92 | 0.033      | 0.024                                 | 0.015   | -               | -                                  | -                              |
| 4       | G4    | 24.24 | 0.062      | 0.023                                 | 0.023   | -               | -                                  | -                              |

(\*) Zero-sequence impedance has not been provided. Typical data was assumed during the SIA. The applicant needs to provide these data during the IESO Market Entry process.

# 3.5 Connection Equipment

### 3.5.1 115 kV Switches

| Table 5. Specifications of 115 kt billedids |                |                              |                                     |  |  |  |
|---------------------------------------------|----------------|------------------------------|-------------------------------------|--|--|--|
| Identifier                                  | Voltage Rating | Continuous Current<br>Rating | Short Circuit<br>Symmetrical Rating |  |  |  |
| -                                           | 145 kV         | 2000 A                       | 40 kA                               |  |  |  |

Table 5: Specifications of 115 kV switches

All switches meet the maximum continuous voltage rating requirement of 127 kV.

### 3.5.2 115 kV Circuit Breakers

| ruore o. opeen      | rubie of opeointeations for the k v endant broakers |                         |                                |                                      |  |  |  |
|---------------------|-----------------------------------------------------|-------------------------|--------------------------------|--------------------------------------|--|--|--|
| <b>Identifier</b> . | Voltage .<br>Ratings                                | Interrupting<br>tume to | Continuous<br>Cument<br>Rating | Shori Gheilit<br>Symnetzleri Retting |  |  |  |
| -                   | 145 kV                                              | 3 cycles<br>(50 ms)     | 2000 A                         | 40 kA                                |  |  |  |

Table 6: Specifications for 115 kV circuit breakers

All circuit breakers meet the maximum continuous voltage rating requirement of 127 kV.

### 3.5.3 Tap Line

The tap line from the project to the connection point consists of an overhead circuit about 23 km long. The parameters of the line are shown in Table 7.

Table 7: Parameters of tap line

| .Circuit                   | Condu                                    | ctor       | Positive-S | sequence)li<br>sSi≓100M | npedance (<br>VA) | - Zeno-Se | prencellin<br>S <sub>E</sub> ≓100M | pedance<br>VA) |
|----------------------------|------------------------------------------|------------|------------|-------------------------|-------------------|-----------|------------------------------------|----------------|
| 가지는 것이라.<br>이나이나<br>이나이나이나 | n an |            | R          | X <sup>1</sup>          | S. i B            | sR∙s.     | X                                  | B              |
| G1S                        | ACSR 1272 k                              | cmil 54/19 | 0.00752    | 0.0686                  | 0.0104            | 0.06325   | 0.16744                            | 0.00668        |

## 3.6 Wind Farm Control System

The project will be equipped with the GE WindCONTROL System. This control system is designed to interface with each WTG in the wind farm for regulating system voltage, system power factor and real and actual power for the entire wind farm. It has also the capability to coordinate and control fixed reactor and capacitor banks when the total reactive requirements for the farm cannot be supplied by the reactive capability of the WTGs.

### Voltage Control

The WindCONTROL System has the following functions related to the voltage control:

• Voltage, VAR and Power Factor Control

The WindCONTROL System has a voltage or power factor closed loop regulator controlling voltage at the connection point or reactive power injected by the wind farm at the connection point by regulating the reactive output of the WTGs.

• Fixed Reactor and Cap Bank Control and Coordination

The WindCONTROL System is able to control and coordinate the insertion of up to 4 fixed capacitor or reactor banks. These banks may be operated automatically in conjunction with the voltage or power factor regulator.

Line Drop Compensation / Voltage Droop Compensation

The voltage regulator and the power factor regulator can implement line drop-compensating logic to correct for voltage drops and VAR losses on the line. The voltage regulator can be configured with

voltage droop compensation, which allows tightly coupled adjacent voltage regulators to share in the voltage regulation of a point that is common to all the adjacent regulators.

The voltage control functions enable the proposed wind farm to operate in voltage control mode and control voltage at a point whose impedance (based on rated apparent power and voltage of the project) is not more than 13% from the connection point. Thus, it is acceptable to the IESO.

The function of voltage control meets the requirements of the Market Rules.

#### Frequency Control

The WindCONTROL System has a function of frequency droop control which controls the wind farm power output based upon the grid frequency. This function is similar to governor droop control for a conventional rotating generator.

The WindCONTROL System also has the WindINERTIA feature that enables the GE 1.6 MW WTG to provide inertial response to help stabilize grid frequency. This feature supports the grid during under frequency events by providing a temporary increase in power production for a short duration, contributing towards frequency recovery.

This is achieved by tapping into the stored kinetic energy in the rotor mass. The response is equivalent to that of a synchronous generator with an inertia constant of 3.5 sec.

The function of frequency control meets the requirements of the Market Rules.

#### -End of Section-

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# 4. Short Circuit Assessment

Fault level studies were completed by the transmitter to examine the effects of the project on fault levels at existing facilities in the surrounding area. Studies were performed to analyze the fault levels with and without the project and other recently committed generation projects in the system.

The short circuit study was carried out with the following primary system assumptions:

### (1) Generation Facilities In-Service

| East                     |                        |                              |             |
|--------------------------|------------------------|------------------------------|-------------|
| Lennox                   | G1-G4                  | Chenaux                      | G1-G8       |
| Kingston Cogen           | G1-G2                  | Mountain Chute               | G1-G2       |
| Wolf Island              | 300 MW                 | Stewartville                 | G1-G5       |
| Amprior                  | G1-G2                  | Brockville                   | Gl          |
| Barrett Chute            | G1-G4                  | Havelock                     | Gl          |
| Chats Falls              | G2-G9                  | Saunders                     | G1-G16      |
| Cardinal Power           | G1, G2                 |                              |             |
| Toronto                  |                        |                              |             |
| Pickering units          | G1, G4-G8              | Sithe Goreway                | G11-13, G15 |
| Darlington               | G1-G4                  | TransAlta Douglas            | G1-G3       |
| Portlands GS             | G1-G3                  | GTAA                         | G1-G3       |
| Algonquin Power          | G1, G2                 | Brock west                   | Gl          |
| Whitby Cogen             | GI                     |                              |             |
| Niagara                  |                        |                              |             |
| Thorold GS               | GTG1, STG2             | Beck 2                       | G11-G26     |
| Beck 1                   | G3-G10                 | Beck 2 PGS                   | G1-G6       |
| Decew                    | G1, G2, ND1            |                              |             |
| South West               |                        |                              |             |
| Nanticoke                | G1, G2, G5-G8          | Kingsbridge WGS              | 39.6 MW     |
| Halton Hills GS          | G1-G3                  | Amaranth WGS                 | 199.5 MW    |
| Bruce                    |                        |                              |             |
| Bruce A                  | G1-G4                  | Ripley WGS                   | 76 MW       |
| Bruce B                  | G5-G8                  | Underwood WGS                | 198 MW      |
| Bruce A Standby          | SG1                    |                              |             |
| West                     |                        |                              |             |
| Lambton units            | G3-G4                  | Imperial Oil                 | G1          |
| Brighton Beach           | G1, G1A, G1B           | Kruger Port Alma WGS         | 101.2 MW    |
| Greenfield Energy Centre | G1-G4                  | Gosfield Wind Project        | 50.6 MW     |
| St. Clair Energy Centre  | CTG3, STG3, CTG4, STG4 | Kruger Energy Chatham WF     | 101 MW      |
| East Windsor Cogen       | G1-G2                  | Raleigh WEC                  | 78 MW       |
| TransAlta Sarnia         | G861, G871, G881, G891 | Talbot Wind Farm             | 98.9 MW     |
| Ford Windsor CTS         | STGS                   | Fort Burwell WGS             | 99 M W      |
| TransAlta Windsor        | G1, G2                 | Fort Chicago London Cogen    | 25 MVA      |
| West Windsor Power       | G1, G2                 | Great Northern Iri-Gen Cogen | 15 MVA      |
| Dow Chemicals            | GI, G2, G3             |                              |             |

### (2) Previously Committed Generation Facilities

- Bruce G1, G2
- Big Eddy GS and Half Mile Rapids GS
- White Pines Wind Farm
- Amherst Island
- York Energy Centre
- Conestogo Wind Energy Centre 1
- Dufferin Wind Farm
- Summerhaven Wind Farm

### (3) Recently Committed Generation Facilities

- Bluewater Wind Energy Centre
- Jericho Wind Energy Centre
- Bornish Wind Energy Centre
- Goshen Wind Energy Centre
- Cedar Point Wind Power Project Phase II
- Adelaide Wind Energy Centre
- Grand Bend Wind Farms
- Grand Valley Wind Farms (Phase 3)
- Erieau Wind

### (4) Existing and Committed Embedded Generation

- Essa area: 264 MW
- Ottawa area: 90 MW
- East area: 580 MW
- Toronto area: 168 MW
- (5) Transmission System Upgrades
  - Leaside Bridgman reinforcement: Leaside TS to Birch JCT: new 115 kV circuit (CAA2006-238);
  - St. Catherines 115 kV circuit upgrade: circuits D9HS, D10S and Q11S (CAA2007-257);
  - Tilbury West DS second connection point for DESN arrangement using K2Z and K6Z (CAA2008-332);
  - Second 500kV Bruce-Milton double-circuit line (CAA2006-250);
  - Woodstock Area transmission reinforcement (CAA2006-253);
    - Karn TS in service and connected to M31W & M32W at Ingersol TS
    - W7W/W12W terminated at LFarge CTS
    - Woodstock TS connected to Karn TS
  - Rodney (Duart) TS DESN connected to W44LC and W45LS 230 kV circuits (CAA2007-260)

### (6) System Operation Conditions

- Lambton TS 230 kV operated open
- Claireville TS 230 kV operated open
- Leaside TS 230 kV operated open
- Leaside TS 115 kV operated open
- Middleport TS 230 kV bus operated open
- Hearn SS 115 kV bus operated open

- Port Dover and Nanticoke
- Grand Renewable Energy
- Greenfield South
- Comber East C24Z
- Comber West C23Z
- Pointe-Aux-Roches Wind
- South Kent Wind Farm
- East Lake St. Clair Wind
- Adelaide Wind Power
- Gunn's Hill Wind Farm
- Silvercreek Solar Park
- K2 wind
- Armow
- 300 MW at Orangeville
- 100 MW at S2S
- Niagara area: 52 MW
- Southwest area: 348 MW
- Bruce area: 26 MW
- West area: 585 MW

- Cherrywood TS north & south 230kV buses operated open
- Richview TS 230 kV bus operated open
- All tie-lines in service and phase shifters on neutral taps
- Maximum voltages on the buses

Table 8 summarizes the projected fault levels at facilities near the project with and without the project and other recently committed generation projects.

| Bus              | සංග්රීත් වර්ග විස්ථාවන් |          | រសិច្ចាបិង<br>សាមានលើចា | වේ රිසින්ට විසින් විසින්<br>මේ සින්ට විසින් සින් | LovenRuingof            |  |
|------------------|-------------------------|----------|-------------------------|--------------------------------------------------|-------------------------|--|
|                  | SaPhore                 | Ū-Ū      | 3-17hmse                | ĨĿ-C                                             | Circuit Breekers ((kA)) |  |
|                  |                         | Symn     | netrical (kA)*          | k                                                |                         |  |
| Bluewater 115 kV | -                       | -        | 5.429                   | 5.774                                            | 40                      |  |
| Goshen 115 kV    | -                       | -        | 6.733                   | 5.838                                            | 40                      |  |
| Seaforth 115 kV  | 11.563                  | 13.635   | 13.725                  | 16.339                                           | 30.9                    |  |
| Majestic CTS     | 18.111                  | 16.083   | 19.050                  | 16.585                                           | 63                      |  |
| Detweiler 230 kV | 22.876                  | 19.782   | 23.721                  | 20.291                                           | 40                      |  |
| Detweiler 115 kV | 24.235                  | 27.101   | 24.673                  | 27.503                                           | 34.7                    |  |
| Bruce A 230 kV   | 42.966                  | 54.361   | 44.634                  | 56.152                                           | 60***                   |  |
|                  |                         | Asym     | metrical (kA)           | *                                                |                         |  |
| Bluewater 115 kV | -                       | -        | 6.012                   | 6.705                                            | (unknown)****           |  |
| Goshen 115 kV    | -                       | -        | 7.013                   | 5.991                                            | (unknown)****           |  |
| Seaforth 115 kV  | 12.886                  | 16.026   | 15.599                  | 19.574                                           | 35.8                    |  |
| Majestic CTS     | 21.762                  | 18.200   | 22.962                  | 18.748                                           | 66.3                    |  |
| Detweiler 230 kV | 26.808                  | 25.255   | 27.815                  | 25.932                                           | 42.1                    |  |
| Detweiler 115 kV | 28.082                  | 33.348   | 28.659                  | 33.934                                           | 39.8                    |  |
| Bruce A 230 kV   | 57.645                  | 78.446** | 59.730                  | 80.815**                                         | 72.6***                 |  |

Table 8: Fault levels at facilities near the project

\* Based on a pre-fault voltage level of 550 kV for 500 kV buses, 250 kV for 230 kV buses, and 127 kV for 115 kV buses.

\*\*The asymmetrical fault level is based on a breaker contact parting time of 44 ms.

\*\*\*Three lower rated Bruce A 230 kV breakers (D1L81, K1L82 and L23T25) are scheduled to be replaced by December 2012 (see CAA ID#2010-EX511). The listed lowest rated circuit breaker value for Bruce A 230 kV assumes these breakers being replaced.

\*\*\*\*The connection applicant must provide the asymmetrical rating of the 115 kV circuit breakers during the IESO Market Entry process.

Table 8 shows that fault levels increase by a small amount due to the addition of the project and other recently committed generation projects. The interrupting capability of circuit breaker at the project is adequate for the anticipated fault levels.

The results also show that the line-to-ground asymmetrical fault current at Bruce A 230 kV before and after the incorporation of the project and other committed projects will exceed the interrupting capability of the existing breakers. This issue has been investigated in the  $2^{nd}$  SIA addendum for the project of Bruce G1 and G2 restart (CAA ID 2004-163), where the IESO has identified a requirement to replace all the Bruce 230 kV breakers with higher fault current interrupting capability and assessed potential mitigation measures for this issue until these circuit breakers are replaced. Hydro One has planned to replace the Bruce 230 kV breakers.

With the exception of Bruce A 230 kV, the interrupting capability of the lowest rated circuit breakers near the project will not be exceeded after the incorporation of the project.

-End of Section-

IESO REP 0760

# 5. Protection Impact Assessment

A Protection Impact Assessment (PIA) was completed by the transmitter to examine the impact of the new generators on existing transmission system protections.

#### Protection Changes

The changes to the existing transmission protection systems for incorporating the project have been proposed in the PIA report (Appendix B), including:

- The instantaneous line protection at Seaforth TS will overreach into the LV side at Centralia TS, Goderich TS, St. Mary's TS, and Goshen wind farm step-up transformer.
- Blocking signals will be incorporated into the protection on line L7S from Centralia TS, Goderich TS, St. Mary's TS, and Goshen wind farm.

The overreach of the instantaneous line protection at Seaforth TS into the LV side at Centralia TS, Goderich Ts, St. Mary's TS, and Goshen WF while introducing the blocking signals will increase the fault clearing time of circuit L7S by 50 ms. These changes were included in the system impact studies.

Since circuit L7S is a radial circuit, relay margin analysis was not performed in the system impact studies.

#### Relevant Telecommunication Requirements

• New telecommunications will be required between Seaforth and Centralia, Goderich, St Mary's, Goshen WEC for the above blocking signals.

The PIA concluded that it is feasible for the connection applicant to connect the project at the proposed location as long as the proposed changes to the transmission configuration, protection hardware, protection settings, and telecommunications are made.

-End of Section-

# 6. System Impact Studies

The technical studies focused on identifying the impact of the project on the reliability of the IESOcontrolled grid. It includes thermal loading assessment of transmission lines, system voltage performance assessment of local buses, transient stability assessment of the proposed and major surrounding generation units, ride-through capability of the project. The section also investigates the performance of the proposed control system and identifies the impact of the project on existing SPS schemes. In addition, the reactive power capability of the project is assessed and compared to the Market Rules requirements.

# 6.1 Existing System

The 115 kV system in the vicinity of the project consists of Seaforth TS, and radial lines L7S and M18 originating from Seaforth TS. A 39.6 MW Kingsbridge wind farm is embedded at Goodrich TS which is connected to the 115 kV radial line M18. Under normal operating condition, Seaforth and Detweiler stations are not paralleled via L7S/D8S circuits. The normal open point is the 115 kV switch 9A1-2 at St. Mary TS. The load on transformer T2 at St Mary's TS is supplied from Seaforth TS, while transformer T1 at St Mary's TS is supplied from Detweiler TS. The low voltage tie breaker at St. Mary TS is normally closed.

Under emergency conditions, the 115 kV in-line switch L7S-61M18 can be closed and the load on circuit M18 can be supplied by circuit L7S, or vice versa. Circuit D8S from Detweiler TS can also supply St. Mary TS and the load on circuit L7S by closing switch 9A1-2 at St. Mary TS and opening switch L7S-21 which is close to Seaforth TS.

There are two 230/115 kV three-winding power transformers at Seaforth TS, T5 and T6. Seaforth TS is connected to the 230 kV circuits B22D and B23D between Bruce A TS and Detweiler TS.

Figure 2 provides an overview of the transmission system in the vicinity of the project.

# 6.2 Historical Data

Historical data, consisting of hourly average samples for the last two years, were obtained from IESO real-time telemetry for the following quantities:

- 115 kV voltages at Seaforth TS;
- Active power flow (MW) on 230 kV Transformers T5 and T6 at Seaforth TS.

Plots for these quantities are presented in Figure 3 to Figure 5. Figure 3 shows that the 115 kV voltage at Seaforth TS stays above 124 kV for more than 80 percent of the time. The flows on Seaforth Transformer T5 and T6 are from the 230 kV system to the 115 kV system as shown in Figure 4 and Figure 5.

Table 9 to Table 10 summarizes the historical flows on the lines and transformers and bus voltages in the vicinity of the project.

| Elèment                                   | Range (MW) | Average (MW) |
|-------------------------------------------|------------|--------------|
| Flow of circuit L7S out of Seaforth TS    | 30-110     | 54           |
| Flow of Seaforth T5 from 230 kV to 115 kV | 40-140     | 53           |
| Flow of Seaforth T6 from 230 kV to 115 kV | 30-125     | 50           |

#### Table 9: Historical Flows

Table 10: Historical Voltages

| Bus             | Range(kV) | Average (kV) |
|-----------------|-----------|--------------|
| Seaforth 115 kV | 116-127   | 125          |

# 6.3 Study Assumptions

In this assessment, the 2014 summer base cases were used with the following assumptions:

- (1) **Transmission facilities**: All existing and committed major transmission facilities with 2014 inservice dates or earlier were assumed in service. The committed facilities primarily include:
  - Second 500 kV Bruce-Milton double-circuit line (CAA2006-250);
  - Buchanan TS: one 250 MVAr shunt capacitor;
  - Nanticoke and Detweiler SVCs;
  - Series capacitors at Nobel SS in each of the 500 kV circuits X503E & X504E;
- (2) Generation facilities: All existing and committed major generation facilities with 2013 in-service dates or earlier were assumed in service. The committed facilities primarily include:

### Previously Committed Generation Facilities

- Bruce G1, G2
- Big Eddy GS and Half Mile Rapids GS
- White Pines Wind Farm
- Amherst Island
- York Energy Centre
- Conestogo Wind Energy Centre 1
- Dufferin Wind Farm
- Summerhaven Wind Farm

### **Recently Committed Generation Facilities**

- Bluewater Wind Energy Centre
- Jericho Wind Energy Centre
- Bornish Wind Energy Centre
- Goshen Wind Energy Centre
- Cedar Point Wind Power Project Phase II
- Adelaide Wind Energy Centre
- Grand Bend Wind Farms
- Grand Valley Wind Farms (Phase 3)
- Erieau Wind

### Existing and Committed Embedded Generation

- Essa area: 264 MW
- Ottawa area: 90 MW
- East area: 580 MW
- Toronto area: 168 MW

- Port Dover and Nanticoke
- Grand Renewable Energy
- Greenfield South
- Comber East C24Z
- Comber West C23Z
- Pointe-Aux-Roches Wind
- South Kent Wind Farm
- East Lake St. Clair Wind
- Adelaide Wind Power Project
- Gunn's Hill Wind Farm
- Silvercreek Solar Park
- K2 wind
- Armow
- 300 MW wind at Orangeville
- 100 MW wind at STS
- Niagara area: 52 MW
- Southwest area: 348 MW
- Bruce area: 26 MW
- West area: 585 MW

(3) **Basecases:** Three basecases in terms of load level were used in this SIA studies: peak load, shoulder load, and light load. The generation dispatch philosophies for the three cases are as follows:

#### Peak load basecase

- All committed and existing generation in the Southwest and Bruce areas were maximized, including 8 units at Bruce;
- Gas generation, in conjunction with maximum wind generation, in the West area was dispatched to achieve a NBLIP transfer of approximately 2000MW;
- Generation in the North areas was dispatched to achieve a Flow South transfer of approximately 1250MW;
- Generation in the Greater Toronto Area included two Pickering units, four Darlington units and four Sithe Goreway units;
- Used for thermal analysis of overall system, voltage decline, and transient stability.

### Shoulder load basecase

- All committed and existing generation in the Bruce area was maximized;
- Renewable and minimum level gas generation in the West was dispatched to achieve an NBLIP transfer of approximately 986MW;
- Generation in the North areas was dispatched to achieve a Flow North transfer of approximately 500MW;
- Generation in the Greater Toronto Area included two Pickering units and four Darlington units;
- Generation in the Southwest area was then dispatched to balance the load;
- Used for thermal analysis of the local 230 kV transmission system.

### Light load basecase

- All dispatchable gas units out of service;
- Minimum hydraulic generation;
- Nuclear generation limited to three Pickering units, two Darlington units and five Bruce units;
- Existing Southwest, West and Bruce area wind generation in service;
- Incorporation of Bluewater and Goshen WECs into the system;
- Used for thermal analysis of the local 115 kV transmission system and voltage decline.

The system demand and the primary interface flows after the incorporation of the proposed project are listed in Table 11.

| 14010 11. 09000 | wolling when passing. |       |      |      | . ( ) |       |      |
|-----------------|-----------------------|-------|------|------|-------|-------|------|
| Basecase        | System Demand         | NBLIP | EABC | FETT | QEW   | FS    | FIO  |
| Peak Load       | 26880                 | 2023  | 6412 | 6913 | 1146  | 1250  | 1585 |
| Shoulder Load   | 20716                 | 986   | 6404 | 6707 | 1055  | -488  | 1309 |
| Light Load      | 11621                 | 643   | 3845 | 906  | 34    | -1048 | 746  |

Table 11: System demand and primary interface flows for basecases (MW)

Unless specified explicitly, the study results in this report are based on normal operating condition of 115 kV circuits.

<sup>(4)</sup> Local operating conditions: The system impact studies were primarily performed for normal operating condition of local 115 kV circuits when circuit L7S is supplied from Seaforth TS. As the connection applicant stated their interest that keeps the project online under emergency condition when circuit L7S is supplied from Detweiler TS, thermal and voltage analysis was also performed for emergency operating mode.

## 6.4 Special Protection System (SPS)

The BSPS is a collection of special protection systems installed at the Bruce B switching station (SS) and other stations which perform pre-defined control actions, including generation rejection, load rejection and reactor switching. These control actions are initiated by recognized contingencies by monitoring the electrical connection between nodes in southern Ontario. The primary purpose of the BSPS is to allow increased pre-contingency transfers on the existing transmission facilities emanating from the Bruce nuclear generation station (NGS).

The BSPS is classified as a "Type 1 Special Protection System", and conforms to criteria and guidelines specified in the Northeast Power Coordinating Council (NPCC) Reliability Reference Directory #7.

The IESO has identified a requirement that wind generation stations connecting near the Bruce NGS must connect to and participate in the BSPS, as detailed in the SIA report and addendum for Hydro One BSPS modifications (CAA ID 2005-EX222). The incorporation of wind generation rejection (G/R) to the BSPS is considered a new BSPS control action. This new control action will provide the IESO with increased operating flexibility during transmission outage conditions.

Special protection system facilities must be installed at the project to accept a single pair (A & B) of G/R signals from the BSPS, and disconnect the project from circuit L7S with no intentional time delay when armed for G/R following a triggering contingency. These special protection system facilities must also comply with the NPCC Reliability Reference Directory #7 for Type 1 special protection systems. In particular, if the SPS is designed to have 'A' and 'B' protection at a single location for redundancy, they must be on different non-adjacent vertical mounting assemblies or enclosures. Two independent trip coils are required on the breakers selected for G/R. The applicant must provide two dedicated communication channels, separated physically and geographically diverse, between the project and the Bruce NGS.

To disconnect the project from the system for G/R, simultaneous tripping of the 115 kV breakers at both the connection point and Goshen Collector station shall be initiated with no accompanying breaker failure response. After being tripped by the BSPS, the closing of the breakers is not permitted until approval is obtained from the IESO. Alternative solutions to disconnect the project from the system for G/R may be acceptable upon the approval of the IESO.

### 6.5 Reactive Power Compensation

The Market Rules (MR) require that generators inject or withdraw reactive power continuously (i.e. dynamically) at a connection point up to 33% of its rated active power at all levels of active power output except where a lesser continually available capability is permitted by the IESO. A generating unit with a power factor range of 0.90 lagging and 0.95 leading at rated active power connected via impedance between the generator and the connection point not greater than 13% based on rated apparent power provides the required range of dynamic reactive capability at the connection point.

Dynamic reactive compensation (e.g. D-VAR or SVC) is required for a generating facility which cannot provide a reactive power range of 0.90 lagging power factor and 0.95 leading power factor at rated active power. For a wind farm with impedance between the generator and the connection point greater than 13% based on rated apparent power, provided the WTGs have the capability to provide a reactive power range of 0.90 lagging power factor at rated active power factor at rated active power factor and 0.95 leading power factor at rated active power range of 0.90 lagging power factor and 0.95 leading power factor at rated active power, the IESO accepts that the wind farm compensates for excessive reactive losses in the collector system of the project with static shunts (e.g. capacitors and reactors).

The SIA proposes a solution for the WF to meet the MR requirements on reactive power capability. However, the applicant can deploy any other solutions which result in its compliance with the MR. The connection applicant shall be able to confirm this capability during the commission tests.

### Dynamic Reactive Power Capability

The GE 1.6 MW turbine has an option for power factor of 0.9 inductive to 0.9 capacitive. The turbines for this project will use this option. Thus, the dynamic reactive capability of the project meets the MR requirements.

### Static Reactive Power Capability

In addition to the dynamic reactive power requirement identified above, the project has to fulfill the reactive power requirement of the project to ensure that it has the capability to inject or withdraw reactive power up to 33% of its rated active power at the connection point. As mentioned above, the IESO accepts this compensation to be made with switchable shunt admittances.

Load flow studies were performed to calculate the static reactive compensation, based on the equivalent parameters provided by the connection applicant for the wind farm.

The reactive power capability in lagging power factor of the project was assessed under the following assumptions:

- A voltage of 121 kV at the connection point;
- maximum active power output from the equivalent WTG;
- maximum reactive power output (lagging power factor) from the equivalent WTG, unless limited by the maximum acceptable WTG terminal voltage;
- maximum acceptable WTG voltage of 1.1 pu, as per WTG voltage capability;
- OLTC at the main step-up transformer set to a tap position of 124.025 kV.

The reactive power capability in leading power factor of the project was assessed under the following assumptions:

- A voltage of 126.25 kV at the connection point;
- minimum (zero) active power output from the equivalent WTG;
- maximum reactive power consumption (leading power factor) from the equivalent WTG, unless limited by the minimum acceptable WTG terminal voltage;
- minimum acceptable WTG voltage is 0.9 pu, as per WTG voltage capability;
- OLTC at the main step-up transformer set to a tap position of 124.025 kV.

The WTGs may automatically disconnect themselves from the system during high wind conditions. This leaves only the collector system connected to the grid providing charging reactive power to the system. Simulation results show that under this situation the project will inject 10 Mvar reactive power into the system at the connection point, which may aggravate the high-voltage situation under some system condition. The project shall be capable of reducing the reactive power injection at the connection point to zero at the request of the IESO. This may be obtained by disconnecting the collectors. Shall the project fail to meet the IESO's direction; the IESO reserves the right to ask the connection applicant to disconnect the project from the system.

The IESO's reactive power calculation used the equivalent electrical model for the WTG and collector feeders as provided by the connection applicant. It is very important that the WF has a proper internal design to ensure that the WTG are not limited in their capability to produce active and reactive power due to terminal voltage limits or other facility's internal limitations. For example, it is expected that the transformation ratio of the WTG step up transformers will be set in such a way that it will offset the voltage profile along the collector, and all the WTG would be able to contribute to the reactive power production of the WF in a shared amount.

Based on the equivalent parameters for the wind farm provided by the connection applicant, a static capacitive reactive compensation rated at 14 Mvar@34.5 kV is required to be installed at the wind farm collector bus to meet the reactive power requirements at the connection point.

The required capacitive compensation will need to be arranged into equal steps to allow for flexibility in adjustment of reactive power production. It shall also be implemented as a part of wind farm control system that automatically controls the switching of capacitor banks to regulate the overall WTGs' reactive output to around zero.

#### Static Reactive Power Switching

The IESO requires the voltage change on a single capacitor switching to be no more than 4 % at the any point in the IESO-controlled grid. A switching study was carried out to investigate the effect of the new shunt capacitor banks on the voltage changes. It was assumed that the largest capacitor step size is 14 Mvar. To reflect a reasonably restrictive system condition, the voltage change study assumed one Bruce to Milton circuit out of service.

| Capacitor at LV kV bus | LV bns voltage | Connection point |
|------------------------|----------------|------------------|
| Pre-switching          | 34.97 kV       | 122.27 kV        |
| Post-switching         | 36.057 kV      | 123.82 kV        |
| ΔV                     | 3.01 %         | 1.25 %           |

Table 12: Voltage changes due to static capacitor switching

Table 12 shows that switching a single capacitor of 14 Mvar results in less than 4 % voltage change at the connection point, therefore meeting the Market Rules' requirement.

## 6.6 Wind Farm Voltage Control System

As per the Market Rules' requirements, the wind farm shall operate in voltage control mode by using all voltage control methods available within the project. The overall automatic voltage regulation philosophy for the project is summarized as follow:

- (1) All WTGs control the voltage at a point whose impedance (based on rated apparent power and voltage of the project) is not more than 13% from the connection point. Appropriate control slope is adopted for reactive power sharing among the WTGs as well as with adjacent generators. The reference voltage will be specified by the IESO during operation.
- (2) Capacitor banks are automatically switched in/out to regulate the overall WTGs' reactive generation to around zero output. The dead band for capacitor switching will be set to about  $\pm 60\%$  size of the smallest capacitor to avoid control hunting.
- (3) The main transformer ULTC is adjusted to regulate the collector bus voltage such that it is within normal range and close to about 1 pu. The IESO recommends the automatic control for this ULTC. Appropriate dead band shall be adopted to avoid voltage hunting.

In this control system, the voltage control by WTGs and the overall WTGs' reactive control by capacitor banks need to be coordinated by using different time constants.

In the event that the wind farm voltage control is not available, the IESO requires that each WTG control the power factor at its own terminal to unity. Depending on system conditions, further action such as curtailing the output of the project may be required for reliability purposes.

# 6.7 Thermal Analysis

The Ontario Resource and Transmission Assessment Criteria requires that all line and equipment loads be within their continuous ratings with all elements in service, and within their long-term emergency ratings with any element out of service. Immediately following contingencies, lines may be loaded up to their short-term emergency ratings where control actions such as re-dispatch, switching, etc. are available to reduce the loading to the long-term emergency ratings.

In the thermal analysis, the continuous ratings for the conductors were calculated at the lowest of the sag temperature or 93°C operating temperature, with a 35°C ambient temperature and 4 km/h wind speed. The long term emergency ratings (LTE) for the conductors were calculated at the lowest of the sag temperature or 127°C operating temperature, with a 35°C ambient temperature and 4 km/h wind speed. The short-term emergency ratings (STE) for the conductors were calculated at the sag temperature, with a 35°C ambient temperature and 4 km/h wind speed. The short-term emergency ratings (STE) for the conductors were calculated at the sag temperature, with a 35°C ambient temperature, with a 35°C ambient temperature, with a 35°C ambient temperature.

#### System Overview

The return of Bruce G1 and G2 combined with the addition of new Bruce and Southwest Ontario generation results in a higher flow eastward from Bruce. This naturally increases the flow along the 115 kV path of circuit S2S from Owen Sound TS to Stayner TS when circuit S2S is operated closed-loop. Table 13 shows the pre-contingency thermal results with S2S operated closed-loop under the defined shoulder load condition. It indicates the overloading of both circuit S2S from Meaford TS to Stayner TS and Stayner T1. To prevent the thermal overloading, circuit S2S will be required to operate open-loop under certain conditions after the integration of the committed generation projects in the area of Bruce and Southwest Ontario. Hydro One has investigated this mitigation action and is in agreement with it.

| 1 uoto 15, 110 volumento, alemanta volumento (1100 vice volo vice volumento volumento volumento vice volumento vice vice volumento vice vice volumento vice vice volumento vice vice vice vice vice vice vice vice | Table | 13: Pr | e-contingency | thermal | results | with S23 | S closed-lo | oop une | der sho | ulder | load | conditions |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|--------|---------------|---------|---------|----------|-------------|---------|---------|-------|------|------------|
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|--------|---------------|---------|---------|----------|-------------|---------|---------|-------|------|------------|

| Circuit               | Rie-Contingency Flow | Summer Continuous Retring | Lording (%) |
|-----------------------|----------------------|---------------------------|-------------|
| S2S (Meaford-Stayner) | 650 A                | 590 A*                    | 110         |
| Stayner T1            | 136 MVA              | 125 MVA                   | 109         |

\* Circuit continuous ratings are obtained based on 35°C ambient temperature at 4 km/hr wind velocity, with 93°C maximum operating temperature or individual sag temperature if lower.

Due to the fact that the opening of S2S results in increased flows on the parallel 230 kV and 500 kV circuits emanating from Bruce, circuit S2S was assumed open-loop at Owen Sound for the rest SIA study.

The impact of the projects on the overall system, in conjunction with other committed projects, was examined to identify if any system congestion issues exist in Central and Southwest Ontario due to 230 kV circuit or 500 kV auto-transformer thermal constraints. The studies concluded that under exceptionally high power transfers towards Toronto, generating stations in Bruce and Southwest Ontario may be required to curtail their outputs to relieve congestion. However, the flow into Toronto at the levels examined is not expected to materialize for the next several years. Future planning assessments for the west Greater Toronto Area (GTA) are currently being undertaken by the agencies.

With the addition of new committed generation projects in Bruce and Southwest Ontario, flows east into Toronto were maximized to reach 6913 MW under the defined peak load basecase, representing a high stress case for the west of GTA equipment. Under this high flow scenario, the additional new generation

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projects contributed to overloading some limiting elements in the central area. Table 14 and Table 15 show the thermal results of limiting circuits and transformers in Central area under peak load conditions after the integration of new committed generation projects. It shows both pre-contingency and post-contingency overloading of the limiting elements. Additional simulation results based on the defined shoulder load basecase show post-contingency overloading on circuits E8V/E9V for the loss of the companion circuit. If flows were to reach these high levels, the generating plants in the Bruce and Southwest Ontario may be required to curtail their outputs.

| Cheult                       | Contingency | Pre-Conti,<br>Floxy<br>(A) | Continuous<br>Rating (A)) <sup>C</sup> | Pie-Cont.<br>Lexiling | Post-Cont.<br>Plow<br>(A)) | LIII<br>Reime<br>(MIVA) *** | Post-Cont<br>Loreting<br>(%) |
|------------------------------|-------------|----------------------------|----------------------------------------|-----------------------|----------------------------|-----------------------------|------------------------------|
| R14T<br>(Trafalgar-Erindale) | R17T        | 1059                       | 1110                                   | 95                    | 1577                       | 1460                        | 108                          |
| R17T<br>(Trafalgar-Erindale) | R14T        | 1063                       | 1110                                   | 96                    | 1576                       | 1460                        | 108                          |
| R19TH<br>(Erindale-Hanlan)   | R14T+R17T   | 792                        | 840                                    | 94                    | 1131                       | 1090                        | 107                          |

| Fable 1 | 4: | Thermal      | results o | f limiting | circuit in | central | area under | neak-load | conditions |
|---------|----|--------------|-----------|------------|------------|---------|------------|-----------|------------|
|         |    | 1 1101 11101 | 1000100 0 | I III      | on our m   | COLLECT | arou anaor | pour rouu | vondition0 |

| Table 1: | 5: The | ermal res | sults of | limiting | transformers        | in | central | area under    | peak-load | conditions |
|----------|--------|-----------|----------|----------|---------------------|----|---------|---------------|-----------|------------|
| THOID IN |        |           |          |          | VI GILDI OI IIXOX D |    | ••••••  | and an and an |           |            |

|                 |                             | Concentration                 |                                    |                     | Loss of Trafe             | <u>kar TilS</u>                          |
|-----------------|-----------------------------|-------------------------------|------------------------------------|---------------------|---------------------------|------------------------------------------|
| Transformer     | Pre-Cont.<br>Flow<br>(MVA)) | Continuous<br>Rating<br>(MNA) | Pre-Coni,<br><u>Lording</u><br>(%) | LTE Rating<br>(MVA) | Post-Cont.<br>[Mox(MIVA)) | Posi-<br>Conii,<br><u>Londing</u><br>(%) |
| Trafalgar T14   | 858.84                      | 750                           | 114.51                             | 1004                | 1078.02                   | 107.37                                   |
| Trafalgar T15   | 830.20                      | 750                           | 110.69                             | 1132                | 0.00                      | -0.00                                    |
| Claireville T13 | 782.34                      | 750                           | 104.31                             | 988                 | 846.71                    | 85.70                                    |
| Claireville T14 | 796.55                      | 750                           | 106.21                             | 995                 | 861.85                    | 86.62                                    |
| Claireville T15 | 789.09                      | 750                           | 105.21                             | 995                 | 853.96                    | 85.83                                    |

### Local 230 kV Transmission Circuits

For thermal analysis of the local 230 kV transmission system of the project, the shoulder load basecase was used as the resulting flow eastward on the Bruce to Detweiler circuits were higher due to the lower load levels on those circuits. The contingencies considered for this study were:

- 1. Loss of 230 kV circuit B22D;
- 2. Loss of 230 kV circuit B23D;
- 3. Loss of 230 kV circuits B4V+B5V;
- 4. Loss of 500 kV circuits B560V+B561M.

Table 16 shows the pre-contingency flows and post-contingency flows for various circuits in the local area after the connection of the project. The pre-contingency results of the circuits include flow in ampere and loading in percentage of continuous rating. The post-contingency results include flow in ampere and loading in percentage of LTE rating.

The results show that after the connection of the project, the flow on the monitored 230 kV circuits in the area is within their continuous ratings with all elements in service. For the studied contingencies, the loadings of circuits in the area are within their LTE ratings.

### Local 115 kV Circuits and Transformer T5 and T6 at Seaforth TS

For thermal analysis of the local 115 kV circuits of the project and transformers T5 and T6 at Seaforth TS, the light load basecase was used as the project as well as Bluewater WEC results in reverse flow in these elements and the flow on these elements will be higher for the lower load levels behind Seaforth TS. The 115 kV circuits L7S and D8S were examined for thermal impact of the project since the LV tiebreaker at St. Mary TS is normally closed. The contingencies considered for this study were:

- 1. Loss of 230 kV circuit B22D/transformer T5;
- 2. Loss of 230 kV circuit B23D/transformer T6;

Table 17 and Table 18 show the flow of 115 kV circuits and transformers, respectively. Note that the flow direction of the transformers is from 115 kV to 230 kV. The results show that both pre-contingency and post-contingency flow of these elements is within the circuit ratings after the connection of the project.

### Local 115 kV Circuits – Emergency Operating Condition

In case that the project will remain connected to the system under emergency operating condition, the thermal impact on local 115 kV circuit of the project was examined for this operating condition.

Under emergency operating condition, the generation of the project firstly supplies the local load, reducing the circuit loading until the flow is reversed. When the load is light, the project may result in reverse flow on the circuit L7S/D8S, flowing into Detweiler TS, and gradually increase the circuit loading. Thus, the light load basecase was adopted for this study. Table 19 shows the thermal results of circuits L7S and D8S before and after the project is incorporated under the defined light load condition. It indicates that after the project is in-service, circuit L7S may be overloaded under light load conditions. Under such situation, the connection applicant may be required to curtail the project output.

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|--------------------------|------------------------------------------|----------------|--------|--------|---------|--------------|---------|--------------|------------|-------------|---------|-------------|-----------|-----------|
| CIRCUIT                  | FROM                                     | то             | Rating | Rating | Loading | Loading (%). | Loading | Loading (%); | Loading    | Loading (%) | Loading | Loading(X)  | Loading   | loading(C |
| (新)<br>第13章 第13章         |                                          |                | (A)    | (A)    | (A).    | Cont         | (A).    | SA UTE A     | ii (A) iii | 之间可以        | (A) 🕄   | a Sure Ma   | (A)       |           |
| B22D                     | Bruce A TS                               | Majestic Junc  | 1060   | 1400   | 87.2    | 8.2%         | 0.0     | 0.0%         | 128.0      | 9.1%        | 23.8    | 1.7%        | 109.0     | 7.8%      |
| 822D                     | Majestic Junc                            | Armow WF JCT   | 1060   | 1400   | 23.4    | 2.2%         | 0.0     | 0.0%         | 55.7       | 4.0%        | 91.5    | 6.5%        | 165.4     | 11.8%     |
| 822D                     | Armow WF JCT                             | Wingham Junc   | 1060   | 1400   | 426.5   | 40.2%        | 0.0     | 0.0%         | 482.0      | 34.4%       | 516.4   | 36.9%       | 574.3     | 41.0%     |
| B22D                     | Wingham Junc                             | Seaforth TS    | 1060   | 1400   | 397.1   | 37.5%        | 0.0     | 0.0%         | 422.3      | 30.2%       | 487.1   | 34.8%       | 545.1     | 38.9%     |
| B22D                     | Seaforth TS                              | Stratford Junc | 920    | 1210   | 595.7   | 64.7%        | 0.0     | 0.0%         | 702.9      | 58.1%       | 681.0   | 56.3%       | 735.7     | 60.8%     |
| B22D                     | Stratford Junc                           | Detweiler TS   | 920    | 1160   | 496.1   | 53.9%        | 0.0     | 0.0%         | 512.3      | 44.2%       | 581.2   | 50.1%       | 636.0     | 54.8%     |
| B23D                     | Bruce A TS                               | Majestic Junc  | 1060   | 1400   | 255.3   | 24.1%        | 197.2   | 14.1%        | 0.0        | 0.0%        | 343.7   | 24.5%       | 402.4     | 28.7%     |
| B23D                     | Majestic Junc                            | Wingham Junc   | 1060   | 1400   | 343.1   | 32.4%        | 336.5   | 24.0%        | 0.0        | 0.0%        | 432.0   | 30.9%       | 490.2     | 35.0%     |
| B23D                     | Wingham June                             | Seaforth TS    | 1060   | 1400   | 313.3   | 29.6%        | 273.2   | 19.5%        | 0.0        | 0,0%        | 402.2   | 28.7%       | 460.5     | 32.9%     |
| B23D                     | Seaforth TS                              | Grand Bend     | 920    | 1210   | 405.3   | 44.1%        | 546.9   | 45.2%        | 0.0        | 0.0%        | 492.1   | 40.7%       | 548.2     | 45.3%     |
| 823D                     | Grand Bend                               | Stratford Junc | 920    | 1210   | 657.1   | 71.4%        | 798.7   | 66.0%        | 0.0        | 0.0%        | 742.0   | 61.3%       | 796.6     | 65.8%     |
| B23D                     | Stratford June                           | Detweiler TS   | 920    | 1160   | 553.9   | 60.2%        | 607.2   | 52.3%        | 0.0        | 0.0%        | 637.6   | 55.0%       | 691.7     | 59.6%     |

Table 16: Thermal assessment results-230 kV circuits

#### Table 17: Thermal assessment results-115 kV circuits

|         | n forder fordere state<br>State fordere state s |                  | Cont   | ens de la<br>Secteria | Before the connection | e project   | After the pr | oject connection so<br>ontingency | After the pr | ojecticonnection<br>f,B22D/,T5 | After the proje | ct connection s<br>23D/T5 |
|---------|-------------------------------------------------------------------------------------------------------------------------------------------|------------------|--------|-----------------------|-----------------------|-------------|--------------|-----------------------------------|--------------|--------------------------------|-----------------|---------------------------|
| CIRCUIT | FROM                                                                                                                                      | то               | Rating | , Rating ,            | Loading               | Loading (%) | Loading      | Loading - A<br>to (%) to the      | Loading      | Loading<br>(X)                 | Coading<br>(A)  | Loading, 4<br>A(%)        |
|         |                                                                                                                                           |                  | (A) 😳  | (A)                   |                       | Stant Cont  |              | 2 Contine 1                       |              | 以                              |                 | 要認知らに変換                   |
| L7S     | Seaforth TS                                                                                                                               | Goshen<br>WEC    | 530    | 530                   | 183                   | 35%         | 304.7        | 57.5%                             | 265.6        | 50.1%                          | 295.7           | 55.8%                     |
| L7S     | Goshen<br>WEC                                                                                                                             | Kirkton Junc     | 530    | 530                   | 181.4                 | 34%         | 209.6        | 39.5%                             | 224.6        | 42.4%                          | 218.3           | 41.2%                     |
| L7S     | Kirkton<br>June                                                                                                                           | Devizes Junc     | 590    | 610                   | 66.4                  | 11%         | 93.9         | 15.9%                             | 110.5        | 18.1%                          | 103.2           | 16.9%                     |
| L7S     | Devizes<br>Junc                                                                                                                           | Portland<br>Junc | 300    | 300                   | 66.4                  | 22%         | 93.9         | 31.3%                             | 110.5        | 36.8%                          | 103.2           | 34.4%                     |
| L7S     | Portland<br>Junc                                                                                                                          | St_Marys TS      | 300    | 300                   | 58.9                  | 20%         | 86.3         | 28.8%                             | 102.9        | 34.3%                          | 95.6            | 31.9%                     |
| D8S     | St Marys                                                                                                                                  | Leong Junc       | 480    | 620                   | 30.9                  | 7%          | 63.1         | 13.2%                             | 79.5         | 12.8%                          | 72.5            | 11.7%                     |

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Table 18: Thermal assessment results-transformer loadings

|            | <u>607</u> 8      | Lie .  | Belore | Copoleg<br>Menon | Aliteriti<br>Gi | eproject connection<br>eContingency | (AlderCi<br>(J | epiolesiconicilian<br>SofiE-ED/IE | Alardepio)<br>Pasol | 1990 (1990)<br>1920 (109 |
|------------|-------------------|--------|--------|------------------|-----------------|-------------------------------------|----------------|-----------------------------------|---------------------|--------------------------|
| DAME       | REUDOS<br>(KNIVA) | (MIXA) | (CIVA) | (1030103(64)     | Load<br>(Lava)  | Loading(S))<br>Cont                 | LOAD<br>(MVA)  | licacing(S)                       | LOAD<br>(NAVA)      | 10361.03(03)             |
| SEAFORT TS | 250               | 280.6  | 48.6   | 19.4             | 91,1            | 36.4                                | 0.0            | 0.0                               | 120.3               | 42.9                     |
| SEAFORT T6 | 250               | 307.5  | 15.6   | 6.2              | 44.6            | 17.8                                | 115.5          | 37.6                              | 0.0                 | 0.0                      |

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#### Table 19: Thermal assessment results - 115 kV circuits under emergency operating condition

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                       |                                         | Cont   | Before    | Atheproject   | And |              |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------------------------|--------|-----------|---------------|-----------------------------------------|--------------|
| CONCERCING CONCERCINA | E CARLEROM AND AN AND | × ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ | Ratiby | lozing    | / Loading(93) | මාලකාව                                  | Loading(63)  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                       |                                         |        | e (A) e > | তেনাই         | - (A)                                   | <u>Conis</u> |
| L75                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Goshen WEC            | Kirkton junction                        | 530    | 4.4       | 0.8%          | 480.4                                   | 90.6%        |
| L7\$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Kirkton junction      | Devizes junction                        | 590    | 125.3     | 21.2%         | 361.8                                   | 61.3%        |
| L75                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Devizes junction      | Portland junction                       | 300    | 127.7     | 42.6%         | 360.7                                   | 120.2%       |
| L7S                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Portland junction     | St Marys                                | 300    | 133.3     | 44.4%         | 353.9                                   | 118.0%       |
| D85                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | St Marys              | Leong Junction                          | 480    | 150.9     | 31.4%         | 332.5                                   | 69.3%        |
| D8S                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Leong Junction        | Detweiler TS                            | 590    | 179.8     | 30.5%         | 304.5                                   | 51.6%        |

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### 6.8 Voltage Analysis

The Ontario Resource and Transmission Assessment Criteria states that with all facilities in service precontingency, the following criteria shall be satisfied:

- The pre-contingency voltage on 230 kV buses must not be less than 220 kV and voltages on 115kV buses cannot be less than 113 kV;
- The post-contingency voltage on 230 kV buses must not be less than 207 kV and voltages on 115V buses cannot be less than 108 kV; and

• The voltage drop following a contingency must not exceed 10% pre-ULTC and 10% post-ULTC. The voltage performance of the IESO-controlled grid was evaluated by examining if pre- and post-contingency voltages and post-contingency voltage declines remain within criteria at various facilities.

The contingencies considered for this study are listed below. Contingencies were simulated under both peak and light load conditions; however only results for the peak load case are provided as simulation results exhibited that peak load is more critical for voltage performance for the first four contingencies. The results for the last contingency are provided for both peak and light load conditions. To obtain potential highest voltage change, the studies for loss of Goshen WEC were performed with the project absorbing reactive power at its full capability for the light load case and injecting reactive power at its full capability for the light load case and injecting reactive power at its full capability for the light load case and injecting reactive power at its full capability for the light load case and injecting reactive power at its full capability for the light load case and injecting reactive power at its full capability for the light load case and injecting reactive power at its full capability for the light load case and injecting reactive power at its full capability for the light load case and injecting reactive power at its full capability for the light load case and injecting reactive power at its full capability for the light load case and injecting reactive power at its full capability for the light load case and injecting reactive power at its full capability for the light load case and injecting reactive power at its full capability for the light load case and injecting reactive power at its full capability for the light load case and injecting reactive power at its full capability for the light load case and injecting reactive power at its full capability for the light load case and injecting reactive power at its full capability for the light load case and injecting reactive power at its full capability for the light load case and injecting reactive power at its full capability for the light load case and injecting reactive power at its full capability for the light load case and injecting r

- 1. Loss of 230 kV circuit B22D;
- 2. Loss of 230 kV circuit B23D;
- 3. Loss of 230 kV circuits B4V+B5V;
- 4. Loss of 500 kV circuits B560V+B561M;
- 5. Loss of Goshen WEC.

The voltage analysis results are shown in Table 20 and Table 21. They show the pre-contingency voltages, post-contingency voltages before and after the ULTC action, and voltage changes at the buses in the vicinity of the project. The study results show that the project tends to improve the system voltage performance. It also indicates that system voltages after the integration of the project are within the criteria under both pre- and post-contingency conditions; and both declines of pre-ULTC and post-ULTC values are within the criteria of 10%.

#### **Emergency Operating Condition**

Voltage analysis was performed for the loss of Goshen WEC under emergency operating condition. Both peak and light load conditions were adopted for this study. Under the peak load condition, the load at Grand Bend TS was disconnected pre-contingency due to the voltage issues after the loss of Goshen WEC. The reactive power output of the project was adjusted to maintain appropriate voltage level at the connection point of the project.

The voltage analysis results are shown in Table 22 and Table 23. It indicates that system voltages after the integration of the project are within the criteria under both pre- and post-contingency conditions; and both declines of pre-ULTC and post-ULTC values are within the criteria of 10%.

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Table 20: Voltage assessment results

|                             | Pre          | 6.5             | loss of I     | 322D/T5         |               |                 | - loss of      | 323D/TS            |                   |                 | joss of E    | 4V+85V              |                                                                                             | West 148         | oss of 856                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 0V+B561M |       |
|-----------------------------|--------------|-----------------|---------------|-----------------|---------------|-----------------|----------------|--------------------|-------------------|-----------------|--------------|---------------------|---------------------------------------------------------------------------------------------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-------|
|                             | Contingency  | Pre-l           | ULTC          | Post-           | ULTC Market   | Pre-            | JLTC           | Post               | ULTC <sup>2</sup> | Pre-            | ULTC         | Post                | ULTCR                                                                                       | Pre              | JLTC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Post     | ULTC  |
| Bus Name                    | Voltage (kV) | Voltage<br>(kV) | Change<br>(%) | Voltage<br>(kV) | Change<br>(%) | voltage<br>(KV) | Changes<br>(%) | Voltage a<br>(kV)( | nge<br>Change     | Voltage<br>(kV) | Change State | voltage a<br>tracky | ke<br>se<br>th<br>E<br>th<br>E<br>th<br>E<br>th<br>E<br>th<br>E<br>th<br>E<br>th<br>E<br>th | 말<br>말<br>망<br>같 | Change - Cha |          |       |
| GOSHEN WEC POI<br>115 kV    | 122.3        | 122.3           | 0.0%          | 122.3           | 0.0%          | 122.3           | 0.0%           | 122.3              | 0.0%              | 122.3           | 0.0%         | 122.3               | 0.0%                                                                                        | 122.3            | 0.0%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 122.3    | 0.0%  |
| GOSHENWEC HV<br>115 kV      | 122.7        | 123.5           | 0.6%          | 123.5           | 0.6%          | 124.0           | 1.1%           | 123.8              | 0.9%              | 122.8           | 0.1%         | 122.8               | 0.0%                                                                                        | 122.8            | 0.1%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 122.8    | 0.1%  |
| GOSHEN Collector<br>34.5 kV | 34.3         | 34.9            | 1.8%          | 34.9            | 1.8%          | 35.4            | 3.0%           | 35.2               | 2.5%              | 34,4            | 0.2%         | 34.4                | 0.1%                                                                                        | 34.4             | 0.3%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 34.4     | 0.3%  |
| SEAFORTH TS<br>115 kV       | 123.6        | 123.0           | -0.5%         | 123.0           | -0.5%         | 122.5           | -0.9%          | 122.7              | -0.8%             | 123.6           | 0.0%         | 123.6               | 0.0%                                                                                        | 123.6            | 0.0%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 123.6    | 0.0%  |
| DETWEILER TS<br>230 kV      | 244.5        | 244.9           | 0.2%          | 245.2           | 0.3%          | 244.7           | 0.1%           | 245.1              | 0.2%              | 243.6           | -0.4%        | 244.2               | -0.1%                                                                                       | 244.2            | -0.1%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 244.2    | -0.1% |

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Table 21: Voltage assessment results-Loss of Goshen WEC

|            |                    | Pre-Contingency |         | Loss of Goshen WEC |         |             |  |  |  |
|------------|--------------------|-----------------|---------|--------------------|---------|-------------|--|--|--|
| Basecase   | Bus Name           |                 | Voltage | JLTC: A Change     | Voltaze | ULTG Change |  |  |  |
|            |                    | Voltage (kV)    | (kV)    | (%)                | (KV)    | (%)         |  |  |  |
| Light Load | GOSHEN WEC 115 kV  | 122.3           | 124.3   | 1.6%               | 124.3   | 1.6%        |  |  |  |
| Light Load | SEAFORTH TS 115 kV | 124.0           | 125.4   | 1.1%               | 125.4   | 1.1%        |  |  |  |
| Desk Load  | GOSHEN WEC 115 kV  | 122.1           | 116.3   | -4.7%              | 116.6   | -4.5%       |  |  |  |
| , can Loou | SEAFORTH TS 115 kV | 120.7           | 119.1   | -1.3%              | 1.19.2  | -1.2%       |  |  |  |

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|                                     | Pre-Contingency | Loss of Goshen WEC   |                   |                  |               |  |  |  |
|-------------------------------------|-----------------|----------------------|-------------------|------------------|---------------|--|--|--|
| Bue Name                            |                 | - Pre-L              | JLTC              | Post-ULTC        |               |  |  |  |
| <b>DUS INGILIE</b>                  | Voltage (kV)    | * Voltage***<br>(kV) | Ghange>=<br>+ (%) | Voltage,<br>(kV) | Change<br>(%) |  |  |  |
| GOSHEN WEC POI<br>115 kV            | 122.3           | 125.7                | 2.7%              | 125.0            | 2.2%          |  |  |  |
| GOSHENWEC HV<br>115 kV              | 121.0           | 0.0                  | •                 | 0.0              | -             |  |  |  |
| GOSHEN Collector Station<br>34.5 kV | 33.0            | 0.0                  | •                 | 0.0              | -             |  |  |  |
| DETWEILER TS<br>230 kV              | 244.2           | 244.8                | 0.3%              | 244.2            | 0.0%          |  |  |  |
| ST MARYS TS<br>115 kV               | 120.8           | 124.7                | 3.3%              | 124.2            | 2.8%          |  |  |  |
| DETWEILER TS<br>115 kV              | 122.9           | 123.8                | 0.7%              | 123.5            | 0.5%          |  |  |  |

| Table 22:  | Voltage   | assessment   | results | under | emergency    | operating | condition    | -light load | d case |
|------------|-----------|--------------|---------|-------|--------------|-----------|--------------|-------------|--------|
| 1 4010 22. | 1 0104690 | 400000110110 | 1000000 |       | onnon Somo J | operating | 5 •••••••••• |             |        |

Table 23: Voltage assessment results under emergency operating condition-peak load case

|                                     |                  | Loss of Goshen WEC |               |                 |               |  |  |
|-------------------------------------|------------------|--------------------|---------------|-----------------|---------------|--|--|
|                                     | Fre-Contingency. |                    | JLTC          | Rost-ULTC       |               |  |  |
| BusiName                            | Voltage((kV)     | Voltage<br>(kV)    | Change<br>(%) | Voltage<br>(kV) | Change<br>(%) |  |  |
| GOSHEN WEC POI<br>115 kV            | 122.3            | 114.5              | -6.3%         | 115.7           | -5.4%         |  |  |
| GOSHENWEC HV<br>115 kV              | 122.1            | 0.0                | -             | 0.0             | -             |  |  |
| GOSHEN Collector Station<br>34.5 kV | 33.8             | 0.0                | -             | 0.0             | -             |  |  |
| DETWEILER TS<br>230 kV              | 244.3            | 243.9              | -0.2%         | 244.2           | 0.0%          |  |  |
| ST MARYS TS<br>115 kV               | 120.1            | 116.4              | -3.1%         | 117.2           | -2.4%         |  |  |
| DETWEILER TS<br>115 kV              | 123.7            | 123.6              | -0.1%         | 123.8           | 0.1%          |  |  |

## 6.9 Transient Stability Performance

Transient stability simulations were completed to determine if the power system will be transiently stable with the incorporation of the project for recognized fault conditions. In particular, rotor angles of generators at Bruce GS, Greenfield GS, Sithe Goreway GS, and Saunders GS were monitored.

Transient stability analyses were performed considering recognized faults in Southwest area. The simulated contingencies are shown in Table 24. The protection changes proposed in the PIA were included for this analysis.

|     |                                     | H contraction            | Touli Trino | Fault-Cleasing<br>Thue (ms) |        | SPS refor(s) |       | Reedbaure        |  |
|-----|-------------------------------------|--------------------------|-------------|-----------------------------|--------|--------------|-------|------------------|--|
|     | Contingency                         | LOCATION                 | sharin nype | Local                       | Remote | LIRSS        | (CAR) | <u>1fime (s)</u> |  |
| SC1 | B560V+B561M                         | Willow Creek<br>Junction | LLG         | 66                          | 91     | 124          | -     | 10               |  |
| SC2 | B22D                                | Bruce-A TS               | 3 phase     | 83                          | 108    | -            | -     | 10               |  |
| SC3 | B22D                                | Detweiler TS             | 3 phase     | 83                          | 108    | -            | -     | 10               |  |
| SC4 | B4V+B5V                             | Bruce A- TS              | 3 phase**   | 83                          | 108    | -            | -     | 10               |  |
| SC5 | LV side of main step-up transformer | Goshen WEC               | 3 phase     | Un-cleared                  |        | -            | -     | -                |  |

\*LRSS denotes Longwood Reactor Switching Scheme.

\*\* 3-phase fault was simulated instead of LG or LLG fault specified by the ORTAC, as the system is stable under this fault which is more conservative.

Figure 6 to Figure 15 in Appendix A shows the transient responses of the rotor angles and bus voltages. The transient responses show that the generators remain synchronized to the power system and the oscillations are sufficiently damped following all simulated contingencies. It can be concluded that, with the project on-line, none of the simulated contingencies caused transient instability or un-damped oscillations.

It can also be concluded that the protection adjustments proposed in the PIA report have no material adverse impact on the IESO-controlled grid in terms of transient stability.

# 6.10 Voltage Ride-Through Capability

The IESO requires that the wind turbine generators and associated equipment at the project be able to withstand transient voltages and remain connected to the IESO-controlled grid following a recognized contingency unless the generators are removed from service by configuration. This requirement is commonly referred to as the voltage ride-through (VRT) capability.

The GE 1.6 MW WTGs to be installed will be equipped with the GE ZVRT option. The ZVRT capability of wind turbines is shown in Table 2.

The VRT capability of the WTGs was assessed based on the terminal voltages of the WTGs under simulated contingencies in Table 25.

|     | Contingency | Location                 | Eault Type       | Fault Clearing<br>Time (ms)<br>Local Remote |     | SPS en<br>(ii<br>LRSS 7 | tion(S)<br>IS)<br>CR | Re-closure<br>Time (5) |  |  |  |  |
|-----|-------------|--------------------------|------------------|---------------------------------------------|-----|-------------------------|----------------------|------------------------|--|--|--|--|
| SC1 | B560V+B561M | Willow Creek<br>Junction | LLG              | 66                                          | 91  | 124                     | -                    | 10                     |  |  |  |  |
| SC2 | T5+B22D     | Seaforth<br>115 kV K bus | 3phase**<br>+BKF | 227                                         | 123 | -                       | -                    | -                      |  |  |  |  |
| SC3 | B22D        | Bruce-A TS               | 3 phase          | 83                                          | 108 | -                       | -                    | 10                     |  |  |  |  |
| SC4 | B22D        | Detweiler TS             | 3 phase          | 83                                          | 108 | -                       | -                    | 10                     |  |  |  |  |
| SC5 | B4V+B5V     | Bruce A- TS              | 3 phase**        | 83                                          | 108 | -                       | -                    | 10                     |  |  |  |  |

#### Table 25: Simulated contingencies for LVRT

\*LRSS denotes Longwood Reactor Switching Scheme.

\*\* 3-phase fault was simulated instead of LG or LLG fault specified by the ORTAC, as the system is stable under this fault which is more conservative.

Figure 16, Appendix A shows the terminal voltages of the WTG at collector 1 under simulated contingencies. It shows that the terminal voltages of the WTGs remain below 0.45 pu for about 70 ms, and recover to 0.5 pu in less than 250 ms after the fault inception. As compared with the VRT capability of the GE 1.6 MW, the proposed WTGs are able to remain connected to the grid for recognized system contingencies that do not remove the project by configuration.

However, when the project is incorporated into the IESO-controlled grid, if actual operation shows that the WTGs trip for contingencies for which they are not removed by configuration, the IESO will require the VRT capability be enhanced by the applicant to prevent such tripping.

The VRT capability must also be demonstrated during commissioning by monitoring several variables under a set of IESO specified field tests and the results should be verifiable using the PSS/E model.

# 6.11 Steady-State Voltage Stability

The Ontario Resource and Transmission Assessment Criteria states that the maximum acceptable precontingency power transfer must be 10% lower than the voltage instability point of the pre-contingency P-V curve, and 5% lower than the voltage instability point of the post-contingency P-V curve.

The voltage performance of the IESO-controlled grid was evaluated by examining if the FABC transfer after the incorporation of the project meets the above requirement based on pre- and post-contingency and post-contingency P-V curves under peak load conditions. The contingency of simultaneous loss of B560V+B561M was selected for studying the post-contingency steady-state voltage stability as it is the worst-case contingency in terms of system voltage stability. For this recognized contingency, two post-contingency scenarios, either tripping the reactors at Bruce and Longwood or no tripping of these reactors are investigated. Only the voltage responses at Claireville 500kV were recorded as it is the most critical point in the system in terms of system voltage stability performance.

Figure 17 shows the steady-state voltage responses at Claireville 500kV as the FABC transfer increases under the pre-contingency scenario and two post-contingency scenarios. It indicates that the maximum FABC transfer under the pre-contingency scenario, post-contingency reactor tripping scenario, and post-contingency no reactor tripping scenario are 8748 MW, 7256 MW, and 6766 MW, respectively. The pre-contingency FABC transfer is 6412 MW. Thus, the pre-contingency FABC transfer is 10% lower than the voltage instability point of the pre-contingency P-V curve, and 5% lower than the voltage instability point of the pre-contingency P-V curve, and 5% lower tripping scenario. It can be
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concluded that the steady-state voltage stability of the system after the incorporation of the project conforms to the Market Rules' requirement.

-End of Section-

# **Appendix A: Figures**



Figure 1: Goshen Wind Energy Centre proposed connection arrangement

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Figure 2: Transmission system in the vicinity of the project



Figure 3: Seaforth 115 kV bus voltage duration curve

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Figure 4: Seaforth 230 kV transformer T5 flow Note: Positive flow is from 115 kV to the 230 kV system



Figure 5: Seaforth 230 kV transformer T6 flow Note: Positive flow is from 115 kV to the 230 kV system Appendix A: Figures



Figure 6: Major generator angle response due to a LLG fault on circuits B560V+B561M at Willow Creek Junction– with re-closure



Figure 7: Voltage response due to a LLG fault on circuits B560V+B561M at Willow Creek Junction– with re-closure

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Figure 8: Major generator angle response due to a 3-ph fault on circuit B22D @ Bruce-A TS - with re-closure



Figure 9: Voltage response due to a 3-ph fault on circuit B22D @ Bruce-A TS – with re-closure



Figure 10: Major generator angle response due to a 3-ph fault on circuit B22D @ Detweiler TS - with re-closure



Figure 11: Voltage response due to a 3-ph fault on circuit B22D@ Detweiler TS - with re-closure



Figure 12: Major generator angle response due to a 3 ph fault on circuits B4V+B5V@Bruce - with re-closure



Figure 13: Voltage response due to a 3ph fault on circuits B4V+B5V @Bruce TS – with re-closure



Figure 14: Major generator angle response due to an un-cleared 3 ph fault inside Goshen WEC



Figure 15: Voltage response due to an un-cleared 3 phase fault inside Goshen WEC



Figure 16: GE 1.6 MW WTG terminal voltages for studied contingencies



Figure 17: Voltage Responses at Claireville 500kV vs. FABC Transfer under Defined Scenarios

# Appendix B: PIA Report

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Hydro One Networks Inc. 483 Bay Street Toronto, Ontario M5G 2P5



**Protection Impact Assessment** 

GOSHEN WIND INC.

**GOSHEN WIND ENERGY CENTRE** 

Date: Oct 18, 2011 P&C Planning Group Project # PCT-289-PIA

Prepared by:

Wojciech Ziolkowski P&C Specialist On Contract Asset Management Hydro One Networks Inc. Aaron Cooperberg P&C Specialist On Contract Asset Management Hydro One Networks Inc. Approved by:

Miroslav Kostic Manager – P&C Planning

Asset Management Hydro One Networks Inc.

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#### Disclaimer

This Protection Impact Assessment has been prepared solely for the IESO for the purpose of assisting the IESO in preparing the System Impact Assessment for the proposed connection of the proposed generation facility to the IESO–controlled grid. This report has not been prepared for any other purpose and should not be used or relied upon by any person, including the connection applicant, for any other purpose.

This Protection Impact Assessment was prepared based on information provided to the IESO and Hydro One by the connection applicant in the application to request a connection assessment at the time the assessment was carried out. It is intended to highlight significant impacts, if any, to affected transmission protections early in the project development process. The results of this Protection Impact Assessment are also subject to change to accommodate the requirements of the IESO and other regulatory or legal requirements. In addition, further issues or concerns may be identified by Hydro One during the detailed design phase that may require changes to equipment characteristics and/or configuration to ensure compliance with the Transmission System Code legal requirements, and any applicable reliability standards, or to accommodate any changes to the IESO-controlled grid that may have occurred in the meantime.

Hydro One shall not be liable to any third party, including the connection applicant, which uses the results of the Protection Impact Assessment under any circumstances, whether any of the said liability, loss or damages arises in contract, tort or otherwise.

#### **Revision History**

| Revision | Date         | Change                                     |
|----------|--------------|--------------------------------------------|
| R0       | Oct 03, 2011 | Initial Draft                              |
| R1       | Oct 18, 2011 | Title on page 4 – changed 100 MW to 102 MW |
|          |              |                                            |

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#### **EXECUTIVE SUMMARY**

It is feasible for Goshen Wind Energy Centre to connect the proposed 102 MW wind generation to 115 kV line L7S at the location as shown in Figure 1 as long as the proposed changes are made as per Section 2.



Figure 1: 62x1.6 MW and 1x1.56 Wind Turbines Connection to HONI Transmission System

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#### PROTECTION IMPACT ASSESSMENT GOSHEN WIND ENERGY CENTRE 102 MW WIND GENERATION CONNECTION

#### 1.0 INTRODUCTION

#### **1.1 Protection Impact Assessment**

This PIA study is prepared for the IESO to assess the potential impact of the proposed connection of the new 102 MW generation facility Goshen Wind Energy Centre to 115 kV line L7S. The primary focus of this study is on protecting Hydro One system equipment while meeting IESO System Reliability Criteria.

#### 1.2 Description of Proposed Connection to the Grid

Goshen Wind Inc. propose to connect 102 MW wind generation to circuit L7S via 22 km tap line. The tap will be located 23 km away from Seaforth TS as shown in figure 1.

#### 2.0 PROTECTION

#### 2.1 General

The connection of the 102 MW wind generation will result in the need for protection and protection setting revisions at Seaforth TS, Detweiler TS, Centralia TS, Goderich TS and St. Marys TS.

#### 2.2 Specific Protection Requirements

Protection work to be is described in the following.

#### 2.2.1 Seaforth TS

#### 115 kV Line L7S Protection

The existing 'A' and 'B' single zone instantaneous line protections consist of the electromechanical relays operating in a direct overreaching mode. The existing line settings cover 118% of the line to Grand Bend, 100% of the line to Centralia TS including 79% of the three transformers in parallel at Centralia TS. The line settings cover 69% of the line impedance to Detweiler TS.

#### Normal Operating Condition

Based on the existing line protection settings and the information received from OGCC normal operating condition is to supply tap load including transformer T2 at St Marys TS. St Mary's transformer T1 and Rush MTS are supplied from Detweiler TS. Seaforth and Detweiler stations are not paralleled via L7S/D8S circuits.

#### **Emergency Operating Condition**

Under emergency conditions the 115 kV in line switch L7S-61M18 can be closed and the load on circuit 61M18 can be supplied by the line L7S. For this condition the line L7S settings cover 100% of the line impedance to Goderich TS plus 79% of the three transformers in parallel at Goderich TS.

#### 115 kV Line 61M18 Protection

The existing line protections are similar to the line L7S. The existing line settings cover 100% of the line impedance to Goderich TS including 79% of the three transformers in parallel at Goderich station.

#### **Emergency Operating Condition**

Under emergency conditions the 115 kV in line switch L7S-M18 can be closed and the load on circuit L7S can be supplied by the line 61M18. For this condition the line 61M18 settings cover 100% of the line impedance to Centralia TS plus 79% of the three transformers in parallel at Centralia station. The line settings cover 69% of the line impedance to Detweiler TS.

Please note that the existing line protection settings will reach into the LV side at St. Marys TS when the LV tie breaker at St Marys TS is closed.

#### 2.2.2 Detweiler TS

#### 115 kV Line D8S Protection

The existing 'A' and 'B' protections consist of the digital relays operating in a direct over reaching mode for zone 1 and zone 2. There are two groups of settings. Group 1 caters to the supply St Marys TS and also the load on circuit L7S. Group 2 caters to the supply to St Marys TS.

#### Group 1

Zone 1 setting covers 125% of the line impedance to St. Mary TS. Zone 2 setting covers 125% of the line impedance to Grand Bend. Zone 2 will reach into the LV sides at Rush MTS and St. Mary TS. Zone 2 is time delayed by 1.6 s.

#### Group 2

Zone 1 and Zone 2 settings cover 125% of the line impedance to St. Mary TS. Zone 2 is time delayed by 0.4 s.

#### Normal Operating Condition

Based on the existing line protection settings and the information received from OGCC normal operating condition is to supply transformer T1 at St Marys TS. Transformer T2 is supplied from Seaforth TS. Setting Group 2 is selected.

#### Emergency Operating Condition

Under emergency conditions line D8S can supply St Marys TS and the load on circuit L7S including Grand Bend. Setting Group 1 is selected. Extending the supply to Grand Bend is unlikely due to the voltage issues associated with heavy loads and long line.

#### Connection of the Goshen Wind Farm

#### Seaforth TS

Connection of Goshen Wind farm will introduce the line apparent impedance at Seaforth TS. The line protection settings will have to be increased to cover the apparent impedance on both lines L7S and 61M18. As a result the instantaneous line protection at Seaforth TS will overreach into the LV side at Centralia TS, Goderich TS, St. Mary TS and Goshen Wind step up transformer. To maintain the instantaneous protection coverage of the line to St Mary TS (46.5 km), blocking signals will be required from Centralia TS, Goderich TS, St. Marys TS and Goshen Wind farm. The blocking signals must be incorporated into the protections on both lines L7S and 61M18, provided Goshen Wind Energy Centre will be connected during the emergency supply.

Transfer Trip (TT) facility will be required between Seaforth TS and Goshen Wind farm. Cascading of the new TT onto the existing transfer trip to St Marys TS will be also required.

If the incorporation of the blocking signals and the new transfer trip functions into the existing line protection is not feasible due to panel space etc. the electromechanical relays must be replaced with IED's.

The breakers for L7S and 61M18 at Seaforth TS shall not be permitted to automatically reclose until it has been established that the Goshen Wind Energy Centre HV line breaker has successfully opened. This can be implemented in either one of two ways. A GEO signal can be sent from the Goshen Wind facility to Seaforth TS. Alternatively, synchrocheck reclosing can be invoked for the breakers, excluding the lead breaker that automatically recloses on undervoltage and time.

#### Detweiler TS

Please note that if Goshen Wind farm will be connected to circuit L7S during emergency supply from Detweiler TS to include L7S load the following will be required:

Transfer trip facility will be required between Detweiler TS and Goshen Wind Energy Centre. Cascading of the new transfer trip onto the existing transfer trip to St Mary TS will be also required.

Connection of Goshen Wind farm will introduce the line apparent impedance at Detweiler TS. However, it is anticipated that the apparent impedance should not increase significantly due to the location of Goshen Wind Farm. The line protection settings should be revised accordingly.

The breakers for the line D8S shall not be permitted to automatically reclose until it has been established that the Goshen Wind Energy Centre HV line breaker has successfully opened. This can be implemented in either one of two ways. A GEO signal can be sent from the Goshen Wind facility to Detweiler TS.

#### Centralia TS, Goderich TS, St. Mary TS, Goshen Wind Energy Center

Blocking signals must be initiated at these stations for faults on the LV side. The blocking signals must be sent to Seaforth TS.

Please note that due to grounding of the HV winding of the step up transformer at Goshen Wind Energy Centre the line ground backup protections at St Marys and Goderich stations must be reviewed.

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#### **Tele-Protection**

New telecommunication facilities will be required between Seaforth and Centralia, Goderich, St Mary, Goshen Wind stations for the blocking signal.

New telecommunication facilities will be required between Seaforth TS and Goshen Wind Energy Centre for Transfer Trip facility.

New telecommunication facility may be required between Detweiler TS and Goshen Wind Energy Centre for Transfer Trip facility.

#### 3.0 SCADA/RTU

It is beyond the scope of the PIA; it will be developed in Appendix E according to HONI standard.

#### **4.0 POWER SYSTEM MONITORING**

It is beyond the scope of the PIA; it will be developed in Appendix E according to HONI standard.

#### 5.0 REVENUE METERING

It is beyond the scope of the PIA; it will be developed in Appendix E according to HONI standard.

#### 6.0 CYBER SECURITY

It is beyond the scope of the PIA; it will be developed in Appendix E according to NERC standards CIP-002 thru CIP-009, as applicable.

#### 7.0 STATION REQUIREMENTS

It is beyond the scope of the PIA; it will be developed in Appendix E.

#### 8.0 UPDATE DATABASES AND DOCUMENTATION

It is beyond the scope of the PIA; it will be developed in Appendix E

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Filed: 2013-04-03 Goshen Wind, Inc. Exhibit I Tab 1 Schedule 1 Page 1 of 1

#### CUSTOMER IMPACT ASSESSMENT

- 53. The final Customer Impact Assessment ("**CIA**") for the Applicant was issued by the IESO on December 23, 2011, a copy of which is attached at Exhibit I, Tab 1, Schedule 2.
- 54. The CIA found that the GWEC and the Facility do not have a material adverse impact on other customers. The Applicant will construct the Facility according to the recommendations and conditions outlined in the CIA.

Filed: 2013-04-03 Goshen Wind, Inc. Exhibit I Tab 1 Schedule 2 Pages: 31

CUSTOMER IMPACT ASSESSMENT

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Hydro One Networks Inc. 483 Bay Street Toronto, Ontario M5G 2P5

#### **CUSTOMER IMPACT ASSESSMENT**

Proposed 102 MW Generation Project Goshen Wind Energy Centre OPA Ref. # FIT – FETX82X

Revision:

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Date:

December 23, 2011

Issued by: Transmission Planning Department System Development Division Hydro One Networks Inc.

Prepared by:

a service of the service

Sacha Constantinescu Assistant Network Engineer. Transmission System Development Hydro One Networks Inc. Approved by:

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John Sabiston, P. Eng Manager Transmission Planning Transmission System Development Hydro One Networks Inc.

#### Disclaimer

This Customer Impact Assessment was prepared based on preliminary information available about the connection of the proposed generation on circuit L7S in Huron County, Ontario. It is intended to highlight significant impacts, if any, to affected transmission customers early in the project development process and thus allow an opportunity for these parties to bring forward any concerns that they may have including those needed for the review of the connection and for any possible application for leave to construct. Subsequent changes to the required modifications or the implementation plan may affect the impacts of the proposed connection identified in this Customer Impact Assessment. The results of this Customer Impact Assessment and the estimate of the outage requirements are also subject to change to accommodate the requirements of the IESO and other regulatory or municipal authority requirements.

Hydro One Networks shall not be liable to any third party which uses the results of the Customer Impact Assessment under any circumstances whatsoever, for any indirect or consequential damages, loss of profit or revenues, business interruption losses, loss of contract or loss of goodwill, special damages, punitive or exemplary damages, whether any of the said liability, loss or damages, arises in contract, tort or otherwise. · .

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#### CUSTOMER IMPACT ASSESSMENT

### PROPOSED 102 MW WIND GENERATION GOSHEN WIND ENERGY CENTRE PROJECT IN HURON COUNTY, ONTARIO.

#### **1.0** INTRODUCTION

#### 1.1 <u>Scope of the Study</u>

This Customer Impact Assessment (CIA) study assesses the potential impacts of the proposed Goshen Wind Energy Centre on the load customers and generators in the local vicinity. This study is intended to supplement the System Impact Assessment "CAA ID 2011-444" issued by the IESO.

This study covers the impact of the addition of the Goshen Wind Energy Centre on the Hydro One Networks Inc. (HONI) system in the area. The primary focus of this study is to identify the impact on the transmission customer connected facilities by assessing the voltage and fault level variations due to the connection of Goshen Wind Energy Centre.

This study does not evaluate the overall impact of the Goshen Wind Energy Centre on the bulk system. The impact of the new generator on the bulk system is the subject of the System Impact Assessment (SIA) which is issued by the Independent Electricity System Operator (IESO).

On November 23, 2011, a draft of this report was given to potentially impacted customers for their review, as required by the Transmission System Code. Any comments received by those customers have been incorporated.

#### 1.2 Background

Under the Ontario Power Authority's Feed-In Tariff (FIT) program, Goshen Wind Inc., a subsidiary of NextEra Energy Canada, is proposing to connect a 102 MW wind farm in Huron County located in southwestern Ontario. The new generation facility will consist of 63 wind turbines which will connect to HONI's L7S 115 kV transmission line south of Seaforth TS. Figure 1 on page 8 shows the geographical location of the proposed wind farm.

Goshen Wind Energy Centre will consist of 62 General Electric 1.6 MW Series wind turbine generators (WTGs) plus one WTG derated to 1.56 MW. Each WTG shall connect to a 34.5 kV collector feeder through 1800 kVA, 34.5 kV/690 V pad-mounted transformers. The collector station will have a total of four 34.5 kV collector feeders – one feeder with 15 WTGs and three with 16 WTGs. The collector station will have a step-up transformer rated at 69/92/115 MVA,

115 kV/34.5 kV. Figure 2 on page 9 shows the single-line diagram with the connection of the proposed wind farm.

The 115 kV Goshen collector substation will be connected via a 115 kV line, 22.3 km long, 1272 54/19 ACSR Pheasant single conductor to HONI's existing L7S Seaforth-Kirkton 115 kV line approximately 22.5 km south of Seaforth TS. Unlike other sections of the L7S line, the section of line where the Goshen project will interconnect is comprised of 477 mcm conductor.

#### 1.3 <u>Customers Connected</u>

The focus of this study is on transmission customers supplied by stations directly connected to circuit L7S and those connected close to Seaforth TS on the 230 kV circuits, B22D and B23D. The affected customers are shown below in Table 1.

| Station                | Customer                                                 |
|------------------------|----------------------------------------------------------|
| Seaforth TS            | Hydro One Networks Inc. (HONI)                           |
| Centralia TS           | HONI                                                     |
| Grand Bend East DS     | HONI                                                     |
| Grand Bend CTS         | Lake Huron WTP                                           |
| McGillivray CTS        | McGillivray R&BP                                         |
| Constance DS           | HONI                                                     |
| Goderich TS            | West Coast Huron Energy Inc., CP Kingsbridge N. WF, HONI |
| Enbridge Bryanston CTS | Enbridge Bryanston                                       |
| St. Mary's Cement CTS  | St. Mary's Cement                                        |
| St. Mary's TS          | Festival Hydro, HONI                                     |
| Wingham TS             | HONI                                                     |
| Stratford TS           | Festival Hydro, HONI                                     |

Table 1. Transmission customers connected to L7S, B22D and B23D.

The following potential impacts at the connection points of existing customers were conducted for this CIA:

- Supply Capacity
- Supply Reliability
- Voltage Performance
- Short-Circuit Analysis
- Preliminary Outage Impact Assessment

#### 2.0 LOAD FLOW RESULTS

The proposed Goshen Wind Energy Centre will increase the supply available in Huron county. It will provide generation in the area as well as the possibility of voltage support in the Huron region. It is not expected to adversely impact the transmission customers in the area. The findings of this Customer Impact Assessment are summarized below:

#### 2.1 Supply Capacity and Reliability

Load flow studies were carried out for the incorporation of Goshen Wind Energy Centre. The generating station is connected to a transmission line with enough capacity to allow the plant to deliver its full power. The addition of the generating station also may help, depending on the operating conditions of the wind farm, when one Seaforth TS auto-transformer is out of service and thereby improves customer reliability under contingency conditions. The heaviest L7S thermal loading results are shown in Table A1 in Appendix A. Please refer to the IESO's system impact assessment on this project - IESO Report - CAA ID 2010-444<sup>1</sup>.

#### 2.2 Voltage Performance

The voltage performance was assessed for the conditions listed in Appendix A. Voltage performance was improved with the Goshen Wind Energy Center in-service. Following a contingency and before the ULTC action, all the HV and LV buses were within the 10% voltage change allowed by the TSC. Following the ULTC response, the HV buses were within the 10% voltage change allowed by the TSC, and all the LV buses were within the 5% voltage change allowed. In addition, the steady state voltages at LV station loads were within 6% of the nominal voltage. Results are shown in Tables A2 to A8 in Appendix A.

#### 2.3 Short Circuit Study

Short-circuit studies were carried out to assess the fault level (with Goshen Wind Energy Centre in service) of the transmission stations in Huron County. The system conditions assumed are summarized in Appendix B.

Tables B1, B2 and B3 show the contribution of all transmission connected Feed-In-Tariff (FIT) project approved by the Ontario Power Authority (OPA), up to and including Goshen Wind Energy Centre, to the short circuit increase in the area by comparing the fault levels obtained with and without Goshen Wind Energy Centre for the 2011 base case, respectively.

Table B4 compares 3-phase fault levels at stations with the station equipment rating. Table B5 shows line-to-ground fault levels at the same stations. All fault levels are within the limits specified in Appendix 2 of the *Transmission System Code* (TSC). The TSC limits are summarized below for reference:

| Nominal Voltage (kV) | Max. 3-Phase Fault (kA) | Max. SLG Fault (kA) |
|----------------------|-------------------------|---------------------|
| 230                  | 63                      | 80 <sup>(1)</sup>   |
| 115                  | 50                      | 50                  |
| 44                   | 20 <sup>(2)</sup>       | 19 <sup>(2)</sup>   |
| 27.6                 | 17 <sup>(2)</sup>       | 12 <sup>(2)</sup>   |

Notes:

(1) – Usually limited to 63 kA

(2) - Effective September 1, 2010, Hydro One requires a 5 % margin on the acceptable TSC limits at voltage levels of <50kV to account for other sources of fault current on the distribution system such as unmodelled synchronous motors and data inaccuracies.

<sup>&</sup>lt;sup>1</sup> CAA ID 2010-444 please see – IESO Status of Committed Generation Project Queue page http://www.ieso.ca/imoweb/connAssess/caa\_StatusSummary-Committed-Generation.asp

#### 2.4 Preliminary Outage Impact Assessment

With appropriate construction and outage planning, it is expected that the connection of Goshen Wind Energy Centre can be performed with minimal supply impact to the existing transmission customers.

#### 3.0 CONCLUSIONS AND RECOMMENDATIONS

This CIA study has reviewed the impact of the Goshen Wind Energy Centre on the existing transmission customers connected to the L7S and Seaforth area circuits. The new plant will provide up to 102MW of power in Huron County and has no negative effect on the voltage in the area.

Fault levels at low voltage and high voltage buses are in accordance with the Transmission System Code Requirement.

All customers are required to check to ensure that the equipment and grounding system at their stations meet the expected increase in fault level.

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This appendix summarizes the result of the impact of the proposed Goshen WEC on the system voltage performance. The load flow studies were carried out using the 2011 System base case and the 115kV-Seaforth/L7S load was assumed to be 155 MW.

To assess the impact of the proposed generation, the contingency of losing circuit B22D along with the T5 auto-transformer was studied for the following cases:

| Case | Kingsbridge WF | Goshen WEC     | Bluewater WEC  |
|------|----------------|----------------|----------------|
| 1    | In-Service     | Out-of-Service | Out-of-Service |
| 2    | In-Service     | In-Service     | Out-of-Service |
| 3    | In-Service     | Out-of-Service | In-Service     |
| 4    | In-Service     | In-Service     | In-Service     |
| 5    | Out-of-Service | In-Service     | Out-of-Service |
| 6    | Out-of-Service | Out-of-Service | In-Service     |
| 7    | Out-of-Service | In-Service     | In-Service     |

#### **Thermal Loading**

Loading on all sections of L7S and on all station transformers fed by L7S were assessed following the contingency noted above. All loading on transformers was below 50% of their continuous ratings. All loading on the circuits was below 50% of their continuous ratings except for the section of L7S between the Goshen WEC point of interconnection (POI) and Kirkton Junction. The post-contingency loading on this section of L7S is shown in Table A1 for each case listed above. The loadings shown in Table A1 are acceptable based on HONI's maximum thermal loading criteria.

#### **Voltage Change**

The post-contingency voltage deviations for all buses in the Seaforth/L7S area are shown in tables A2 to A8 for the seven different cases listed above.

| Table A1. Thermal loading on L7S b | etween the Goshen | WEC POI and Kirkton | Junction, |
|------------------------------------|-------------------|---------------------|-----------|
| continuous rating of 108.1 MVA.    |                   |                     |           |

| Ca          | ise 1                   | Ca          | se 2                    | Ca          | se 3                    | Ca          | se 4                    | Ca          | se 5                    | Ca          | ise 6                   | Ca          | se 7                    |
|-------------|-------------------------|-------------|-------------------------|-------------|-------------------------|-------------|-------------------------|-------------|-------------------------|-------------|-------------------------|-------------|-------------------------|
| MVA<br>Load | % of<br>Cont-<br>Rating |
| 72.0        | 66.6%                   | 80.3        | 74.3%                   | 74.9        | 69.3%                   | 82.9        | 76.7%                   | 78.5        | 72.6%                   | 73.1        | 67.6%                   | 81.1        | 75.0%                   |

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| BUS # | BUS NAME     | BASE V | W/O<br>TAPS | %Delta | W/ TAPS | %Delta |
|-------|--------------|--------|-------------|--------|---------|--------|
| 7111  | SEAFORTH_B23 | 242.83 | 235.98      | -2.82  | 236.96  | -2.42  |
| 7306  | SEAFORTH_TS  | 126.52 | 121.73      | -3.79  | 122.55  | -3.13  |
| 7310  | SEAFORTH_JL7 | 126.51 | 121.72      | -3.79  | 122.55  | -3.13  |
| 7311  | SEAF_LSO_61M | 126.50 | 121.71      | -3.79  | 122.54  | -3.14  |
| 7722  | SEAFORTH_TS  | 29.10  | 27.96       | -3.93  | 29.23   | 0.44   |
| 6556  | WINGHAM_JB23 | 243.99 | 238.11      | -2.41  | 238.77  | -2.14  |
| 7191  | STRATFD_JB23 | 243.14 | 238.87      | -1.75  | 239.46  | -1.51  |
| 2     | GOSHEN_TAP   | 125.25 | 120.35      | -3.91  | 121.31  | -3.15  |
| 7334  | CONSTANCE_DS | 124.92 | 119.74      | -4.14  | 120.91  | -3.21  |
| 7628  | CONSTANCE_B2 | 29.10  | 27.85       | -4.32  | 29.30   | 0.70   |
| 7630  | CONSTANCE_B1 | 29.10  | 27.85       | -4.32  | 29.30   | 0.70   |
| 7350  | GODERICH_TS  | 123.79 | 118.19      | -4.52  | 119.75  | -3.26  |
| 7652  | GODERICH_TS  | 28.95  | 27.25       | -5.89  | 29.35   | 1.37   |
| 7372  | KIRKTON_J    | 124.70 | 119.78      | -3.94  | 120.77  | -3.15  |
| 7325  | BIDDULPH_J   | 123.77 | 118.68      | -4.11  | 119.76  | -3.24  |
| 7465  | GRD_BEND_E_J | 120.99 | 115.75      | -4.33  | 116.86  | -3.41  |
| 7349  | GRD_BEND_EAS | 120.98 | 115.75      | -4.33  | 116.85  | -3.41  |
| 7651  | GRD_BEND_EB1 | 29.11  | 27.80       | -4.52  | 29.21   | 0.34   |
| 7682  | GRD_BEND_EB2 | 29.11  | 27.80       | -4.52  | 29.21   | 0.34   |
| 7351  | GR_BEND      | 120.92 | 115.68      | -4.33  | 116.79  | -3.42  |
| 7650  | GR_BEND      | 4.24   | 4.05        | -4.51  | 4.09    | -3.56  |
| 7332  | CENTRALIA_TS | 123.76 | 118.66      | -4.12  | 119.75  | -3.24  |
| 7624  | CENTRALIA_TS | 29.29  | 28.02       | -4.32  | 29.09   | -0.66  |
| 7375  | MCGILLIVRAY  | 123.66 | 118.55      | -4.13  | 119.64  | -3.25  |
| 7701  | MCGILLIVRAY  | 4.44   | 4.26        | -4.19  | 4.29    | -3.30  |
| 7339  | DEVIZES_J    | 124.03 | 119.24      | -3.86  | 120.22  | -3.08  |
| 7356  | EN_BRYANSTON | 124.01 | 119.22      | -3.86  | 120.19  | -3.08  |
| 7666  | EN_BRYANSTON | 4.47   | 4.29        | -3.90  | 4.33    | -3.11  |
| 7379  | PORTLAND_J   | 122.94 | 118.35      | -3.73  | 119.29  | -2.96  |
| 7384  | ST_MARYS_L7S | 122.86 | 118.30      | -3.71  | 119.24  | -2.94  |
| 7733  | ST_MARYS_BY  | 14.57  | 14.20       | -2.52  | 14.45   | -0.78  |
| 7383  | ST_MARYS_CEM | 122.86 | 118.26      | -3.74  | 119.21  | -2.97  |
| 7732  | ST_MARYS_CEM | 4.44   | 4.27        | -3.83  | 4.30    | -3.04  |
| 7385  | ST_MARYS_D8S | 121.77 | 119.89      | -1.54  | 120.19  | -1.30  |
| 5600  | WAT_RUSH_D8S | 122.84 | 121.71      | -0.91  | 121.88  | -0.78  |
| 6206  | WAT_RUSH_MTS | 14.47  | 14.34       | -0.95  | 14.54   | 0.47   |
| 5404  | DETWEILER TS | 123.19 | 122.10      | -0.89  | 122.26  | -0.76  |

**Table A2.** Voltage deviations due to loss of B22D and Seaforth T5 with Kingsbridge WF I/S, Goshen WEC O/S, and Bluewater WEC O/S.

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|-------|--------------|--------|--------|--------|---------|--------------|
| BUS # | BUS NAME     | BASE V | TAPS   | %Delta | W/ TAPS | %Delta       |
| 7111  | SEAFORTH_B23 | 243.57 | 239.28 | -1.76  | 239.82  | -1.54        |
| 7306  | SEAFORTH_TS  | 126.87 | 123.93 | -2.31  | 124.39  | -1.95        |
| 7310  | SEAFORTH_JL7 | 126.86 | 123.93 | -2.31  | 124.38  | -1.95        |
| 7311  | SEAF_LSO_61M | 126.86 | 123.92 | -2.31  | 124.38  | -1.95        |
| 7722  | SEAFORTH_TS  | 29.25  | 28.55  | -2.40  | 29.04   | -0.72        |
| 6556  | WINGHAM_JB23 | 244.66 | 240.66 | -1.64  | 241.04  | -1.48        |
| 7191  | STRATFD_JB23 | 243.50 | 240.66 | -1.17  | 240.99  | -1.03        |
| 2     | GOSHEN_TAP   | 124.95 | 122.68 | -1.82  | 123.06  | -1.51        |
| 7334  | CONSTANCE_DS | 126.20 | 123.03 | -2.52  | 123.74  | -1.95        |
| 7628  | CONSTANCE_B2 | 29.17  | 28.40  | -2.62  | 29.06   | -0.37        |
| 7630  | CONSTANCE_B1 | 29.17  | 28.40  | -2.62  | 29.06   | -0.37        |
| 7350  | GODERICH_TS  | 126.18 | 122.75 | -2.72  | 123.75  | -1.93        |
| 7652  | GODERICH_TS  | 28.91  | 27.91  | -3.46  | 29.13   | 0.76         |
| 7372  | KIRKTON_J    | 124.34 | 122.05 | -1.84  | 122.45  | -1.52        |
| 7325  | BIDDULPH_J   | 123.39 | 121.03 | -1.92  | 121.47  | -1.56        |
| 7465  | GRD_BEND_E_J | 120.60 | 118.17 | -2.02  | 118.61  | -1.66        |
| 7349  | GRD_BEND_EAS | 120.60 | 118.17 | -2.02  | 118.61  | -1.66        |
| 7651  | GRD_BEND_EB1 | 29.25  | 28.64  | -2.10  | 29.20   | -0.18        |
| 7682  | GRD_BEND_EB2 | 29.25  | 28.64  | -2.10  | 29.20   | -0.18        |
| 7351  | GR_BEND      | 120.54 | 118.10 | -2.02  | 118.54  | -1.66        |
| 7650  | GR_BEND      | 4.23   | 4.14   | -2.10  | 4.15    | -1.73        |
| 7332  | CENTRALIA_TS | 123.39 | 121.02 | -1.92  | 121.47  | -1.56        |
| 7624  | CENTRALIA_TS | 29.20  | 28.61  | -2.02  | 29.13   | -0.24        |
| 7375  | MCGILLIVRAY  | 123.29 | 120.91 | -1.93  | 121.36  | -1.56        |
| 7701  | MCGILLIVRAY  | 4.43   | 4.34   | -1.95  | 4.36    | -1.59        |
| 7339  | DEVIZES_J    | 123.56 | 121.32 | -1.82  | 121.71  | <u>-1.50</u> |
| 7356  | EN_BRYANSTON | 123.54 | 121.30 | -1.82  | 121.69  | -1.50        |
| 7666  | EN_BRYANSTON | 4.45   | 4.37   | -1.84  | 4.38    | -1.51        |
| 7379  | PORTLAND_J   | 122.22 | 120.03 | -1.79  | 120.42  | -1.48        |
| 7384  | ST_MARYS_L7S | 122.12 | 119.93 | -1.79  | 120.32  | -1.47        |
| 7733  | ST_MARYS_BY  | 14.74  | 14.55  | -1.27  | 14.58   | -1.07        |
| 7383  | ST_MARYS_CEM | 122.14 | 119.95 | -1.80  | 120.33  | -1.48        |
| 7732  | ST_MARYS_CEM | 4.41   | 4.33   | -1.84  | 4.35    | -1.51        |
| 7385  | ST_MARYS_D8S | 122.19 | 121.15 | -0.85  | 121.29  | -0.74        |
| 5600  | WAT_RUSH_D8S | 122.96 | 122.18 | -0.63  | 122.27  | -0.56        |
| 6206  | WAT_RUSH_MTS | 14.49  | 14.39  | -0.66  | 14.59   | 0.70         |
| 5404  | DETWEILER_TS | 123.31 | 122.54 | -0.62  | 122.63  | -0.55        |

**Table A3.** Voltage deviations due to loss of B22D and Seaforth T5 with Kingsbridge WF I/S, Goshen WEC I/S, and Bluewater WEC O/S.

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|     | Table A4. Voltage deviations due to loss of B22D and Seaforth T5 with Kingsbridge WF I/S, |
|-----|-------------------------------------------------------------------------------------------|
| ÷ . | Goshen WEC O/S, and Bluewater WEC I/S.                                                    |

|       |              |        | W/O    |        |         |        |
|-------|--------------|--------|--------|--------|---------|--------|
| BUS # | BUS NAME     | BASE V | TAPS   | %Delta | W/ TAPS | %Delta |
| 7111  | SEAFORTH_B23 | 243.09 | 238.46 | -1.91  | 238.92  | -1.71  |
| 7306  | SEAFORTH_TS  | 126.56 | 123.44 | -2.46  | 123.83  | -2.16  |
| 7310  | SEAFORTH_JL7 | 126.55 | 123.44 | -2.46  | 123.82  | -2.16  |
| 7311  | SEAF_LSO_61M | 126.55 | 123.43 | -2.46  | 123.82  | -2.16  |
| 7722  | SEAFORTH_TS  | 29.11  | 28.37  | -2.56  | 29.18   | 0.26   |
| 6556  | WINGHAM_JB23 | 244.28 | 239.98 | -1.76  | 240.31  | -1.63  |
| 7191  | STRATED_JB23 | 243.24 | 240.24 | -1.24  | 240.53  | -1.12  |
| 2     | GOSHEN_TAP   | 125.25 | 122.05 | -2.56  | 122.50  | -2.20  |
| 7334  | CONSTANCE_DS | 125.91 | 122.62 | -2.62  | 123.22  | -2.14  |
| 7628  | CONSTANCE_B2 | 29.10  | 28.30  | -2.72  | 29.17   | 0.25   |
| 7630  | CONSTANCE_B1 | 29.10  | 28.30  | -2.72  | 29.17   | 0.25   |
| 7350  | GODERICH_TS  | 125.91 | 122.43 | -2.76  | 123.29  | -2.08  |
| 7652  | GODERICH_TS  | 29.24  | 28.28  | -3.29  | 29.43   | 0.65   |
| 7372  | KIRKTON_J    | 124.69 | 121.47 | -2.58  | 121.94  | -2.21  |
| 7325  | BIDDULPH_J   | 123.76 | 120.43 | -2.69  | 120.94  | -2.28  |
| 7465  | GRD_BEND_E_J | 120.98 | 117.55 | -2.83  | 118.08  | -2.40  |
| 7349  | GRD_BEND_EAS | 120.98 | 117.55 | -2.83  | 118.08  | -2.40  |
| 7651  | GRD_BEND_EB1 | 29.11  | 28.25  | -2.95  | 29.30   | 0.65   |
| 7682  | GRD_BEND_EB2 | 29.11  | 28.25  | -2.95  | 29.30   | 0.65   |
| 7351  | GR_BEND      | 120.91 | 117.49 | -2.83  | 118.01  | -2.40  |
| 7650  | GR_BEND      | 4.24   | 4.12   | -2.95  | 4.13    | -2.50  |
| 7332  | CENTRALIA_TS | 123.75 | 120.42 | -2.70  | 120.93  | -2.28  |
| 7624  | CENTRALIA_TS | 29.29  | 28.46  | -2.83  | 28.99   | -1.01  |
| 7375  | MCGILLIVRAY  | 123.65 | 120.31 | -2.70  | 120.83  | -2.28  |
| 7701  | MCGILLIVRAY  | 4.44   | 4.32   | -2.74  | 4.34    | -2.32  |
| 7339  | DEVIZES_J    | 124.00 | 120.86 | -2.53  | 121.32  | -2.16  |
| 7356  | EN_BRYANSTON | 123.98 | 120.84 | -2.53  | 121.30  | -2.16  |
| 7666  | EN_BRYANSTON | 4.47   | 4.35   | -2.56  | 4.37    | -2.18  |
| 7379  | PORTLAND_J   | 122.86 | 119.83 | -2.47  | 120.28  | -2.10  |
| 7384  | ST_MARYS_L7S | 122.78 | 119.77 | -2.45  | 120.21  | -2.09  |
| 7733  | ST_MARYS_BY  | 14.57  | 14.33  | -1.67  | 14.55   | -0.15  |
| 7383  | ST_MARYS_CEM | 122.78 | 119.75 | -2.47  | 120.20  | -2.10  |
| 7732  | ST_MARYS_CEM | 4.44   | 4.32   | -2.53  | 4.34    | -2.15  |
| 7385  | ST_MARYS_D8S | 121.89 | 120.62 | -1.04  | 120.78  | -0.91  |
| 5600  | WAT_RUSH_D8S | 122.88 | 122.05 | -0.67  | 122.14  | -0.60  |
| 6206  | WAT_RUSH_MTS | 14.48  | 14.38  | -0.70  | 14.57   | 0.66   |
| 5404  | DETWEILER_TS | 123.23 | 122.43 | -0.65  | 122.51  | -0.59  |

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|-------|--------------|--------|--------|--------|---------|--------|
| BUS # | BUS NAME     | BASE V | TAPS   | %Delta | W/ TAPS | %Delta |
| 7111  | SEAFORTH_B23 | 243.10 | 239.37 | -1.53  | 239.66  | -1.42  |
| 7306  | SEAFORTH_TS  | 126.33 | 123.73 | -2.06  | 123.97  | -1.87  |
| 7310  | SEAFORTH_JL7 | 126.32 | 123.73 | -2.06  | 123.96  | -1.87  |
| 7311  | SEAF_LSO_61M | 126.33 | 123.73 | -2.06  | 123.97  | -1.87  |
| 7722  | SEAFORTH_TS  | 29.12  | 28.50  | -2.13  | 28.94   | -0.63  |
| 6556  | WINGHAM_JB23 | 244.47 | 240.96 | -1.43  | 241.18  | -1.34  |
| 7191  | STRATFD_JB23 | 243.13 | 240.58 | -1.05  | 240.77  | -0.97  |
| 2     | GOSHEN_TAP   | 124.50 | 122.44 | -1.65  | 122.67  | -1.47  |
| 7334  | CONSTANCE_DS | 126.07 | 123.28 | -2.21  | 123.65  | -1.92  |
| 7628  | CONSTANCE_B2 | 29.13  | 28.46  | -2.30  | 29.28   | 0.49   |
| 7630  | CONSTANCE_B1 | 29.13  | 28.46  | -2.30  | 29.28   | 0.49   |
| 7350  | GODERICH_TS  | 126.52 | 123.53 | -2.36  | 124.06  | -1.94  |
| 7652  | GODERICH_TS  | 29.35  | 28.51  | -2.87  | 29.14   | -0.73  |
| 7372  | KIRKTON_J    | 123.87 | 121.79 | -1.68  | 122.03  | -1.48  |
| 7325  | BIDDULPH_J   | 122.91 | 120.76 | -1.75  | 121.04  | -1.52  |
| 7465  | GRD_BEND_E_J | 120.10 | 117.90 | -1.84  | 118.18  | -1.60  |
| 7349  | GRD_BEND_EAS | 120.10 | 117.89 | -1.84  | 118.18  | -1.60  |
| 7651  | GRD_BEND_EB1 | 29.36  | 28.80  | -1.92  | 29.10   | -0.88  |
| 7682  | GRD_BEND_EB2 | 29.36  | 28.80  | -1.92  | 29.10   | -0.88  |
| 7351  | GR_BEND      | 120.04 | 117.83 | -1.84  | 118.11  | -1.60  |
| 7650  | GR_BEND      | 4.21   | 4.13   | -1.91  | 4.14    | -1.67  |
| 7332  | CENTRALIA_TS | 122.90 | 120.75 | -1.75  | 121.03  | -1.52  |
| 7624  | CENTRALIA_TS | 29.07  | 28.54  | -1.84  | 29.02   | -0.20  |
| 7375  | MCGILLIVRAY  | 122.80 | 120.64 | -1.75  | 120.93  | -1.52  |
| 7701  | MCGILLIVRAY  | 4.41   | 4.33   | -1.78  | 4.34    | -1.55  |
| 7339  | DEVIZES_J    | 123.07 | 121.00 | -1.68  | 121.24  | -1.49  |
| 7356  | EN_BRYANSTON | 123.05 | 120.98 | -1.68  | 121.22  | -1.49  |
| 7666  | EN_BRYANSTON | 4.43   | 4.36   | -1.70  | 4.37    | -1.50  |
| 7379  | PORTLAND_J   | 121.68 | 119.61 | -1.70  | 119.84  | -1.51  |
| 7384  | ST_MARYS_L7S | 121.57 | 119.50 |        | 119.72  | -1.52  |
| 7733  | ST_MARYS_BY  | 14.70  | 14.53  | -1.18  | 14.54   | -1.06  |
| 7383  | ST_MARYS_CEM | 121.60 | 119.53 |        | 119.75  | -1.52  |
| 7732  | ST_MARYS_CEM | 4.39   | 4.32   | -1.74  | 4.32    | -1.55  |
| 7385  | ST_MARYS_D8S | 122.08 | 121.22 | -0.71  | 121.30  | -0.64  |
| 5600  | WAT_RUSH_D8S | 122.85 | 122.18 | -0.55  | 122.24  | -0.50  |
| 6206  | WAT_RUSH_MTS | 14.47  | 14.39  | -0.57  | 14.59   | 0.77   |
| 5404  | DETWEILER_TS | 123.20 | 122.54 | -0.54  | 122.60  | -0.49  |

**Table A5.** Voltage deviations due to loss of B22D and Seaforth T5 with Kingsbridge WF I/S, Goshen WEC I/S, and Bluewater WEC I/S.

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|       |              |        | W/O    |               |         |        |
|-------|--------------|--------|--------|---------------|---------|--------|
| BUS # | BUS NAME     | BASE V | TAPS   | %Delta        | W/ TAPS | %Deita |
| 7111  | SEAFORTH_B23 | 243.36 | 239.07 | -1.76         | 239.21  | -1.70  |
| 7306  | SEAFORTH_TS  | 126.79 | 123.99 | -2.21         | 124.11  | -2.12  |
| 7310  | SEAFORTH_JL7 | 126.78 | 123.99 | -2.20         | 124.10  | -2.11  |
| 7311  | SEAF_LSO_61M | 126.78 | 123.98 | -2.21         | 124.09  | -2.12  |
| 7722  | SEAFORTH_TS  | 29.23  | 28.56  | -2.29         | 28.97   | -0.89  |
| 6556  | WINGHAM_JB23 | 244.45 | 240.36 | -1.68         | 240.47  | -1.63  |
| 7191  | STRATED_JB23 | 243.42 | 240.61 | -1.15         | 240.70  | -1.12  |
| 2     | GOSHEN_TAP   | 124.91 | 122.77 | -1.7 <b>2</b> | 122.89  | -1.62  |
| 7334  | CONSTANCE_DS | 125.63 | 122.74 | -2.30         | 122.88  | -2.19  |
| 7628  | CONSTANCE_B2 | 29.27  | 28.57  | -2.39         | 29.09   | -0.64  |
| 7630  | CONSTANCE_B1 | 29.27  | 28.57  | -2.39         | 29.09   | -0.64  |
| 7350  | GODERICH_TS  | 125.07 | 122.11 | -2.37         | 122.28  | -2.23  |
| 7652  | GODERICH_TS  | 29.52  | 28.77  | -2.54         | 29.21   | -1.06  |
| 7372  | KIRKTON_J    | 124.31 | 122.16 | -1.73         | 122.30  | -1.62  |
| 7325  | BIDDULPH_J   | 123.36 | 121.14 | -1.80         | 121.31  | -1.66  |
| 7465  | GRD_BEND_E_J | 120.57 | 118.29 | -1.90         | 118.46  | -1.75  |
| 7349  | GRD_BEND_EAS | 120.57 | 118.28 | -1.90         | 118.46  | -1.75  |
| 7651  | GRD_BEND_EB1 | 29.48  | 28.90  | -1.98         | 29.17   | -1.05  |
| 7682  | GRD_BEND_EB2 | 29.48  | 28.90  | -1.98         | 29.17   | -1.05  |
| 7351  | GR_BEND      | 120.51 | 118.22 | -1.90         | 118.40  | -1.75  |
| 7650  | GR_BEND      | 4.23   | 4.14   | -1.98         | 4.15    | -1.83  |
| 7332  | CENTRALIA_TS | 123.36 | 121.13 | -1.81         | 121.31  | -1.66  |
| 7624  | CENTRALIA_TS | 29.19  | 28.63  | -1.90         | 29.08   | -0.36  |
| 7375  | MCGILLIVRAY  | 123.26 | 121.02 |               | 121.20  | -1.67  |
| 7701  | MCGILLIVRAY  | 4.43   | 4.35   | -1.84         | 4.35    | -1.69  |
| 7339  | DEVIZES_J    | 123.55 | 121.46 | -1.70         | 121.59  | -1.59  |
| 7356  | EN_BRYANSTON | 123.53 | 121.44 | -1.70         | 121.57  | -1.59  |
| 7666  | EN_BRYANSTON | 4.45   | 4.37   | -1.71         | 4.38    | -1.60  |
| 7379  | PORTLAND_J   | 122.25 | 120.24 | -1.64         | 120.37  | -1.54  |
| 7384  | ST_MARYS_L7S | 122.15 | 120.15 | -1.63         | 120.28  | -1.53  |
| 7733  | ST_MARYS_BY  | 14.74  | 14.56  | -1.20         | 14.57   | -1.14  |
| 7383  | ST_MARYS_CEM | 122.17 | 120.16 | -1.64         | 120.29  | -1.54  |
| 7732  | ST_MARYS_CEM | 4.41   | 4.34   |               | 4.34    | -1.57  |
| 7385  | ST_MARYS_D8S | 122.12 | 121.07 | -0.86         | 121.11  | -0.83  |
| 5600  | WAT_RUSH_D8S | 122.93 | 122.16 | -0.63         | 122.19  | -0.60  |
| 6206  | WAT_RUSH_MTS | 14.48  | 14.39  | -0.65         | 14.58   | 0.65   |
| 5404  | DETWEILER TS | 123.28 | 122.52 | -0.61         | 122.55  | -0.59  |

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**Table A6.** Voltage deviations due to loss of B22D and Seaforth T5 with Kingsbridge WF O/S, Goshen WEC I/S, and Bluewater WEC O/S.

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|       |              |        | W/O    |        |                 |        |
|-------|--------------|--------|--------|--------|-----------------|--------|
| BUS # | BUS NAME     | BASE V | TAPS   | %Delta | W/ TAPS         | %Delta |
| 7111  | SEAFORTH_B23 | 242.79 | 237.93 | -2.00  | 238.17          | -1.91  |
| 7306  | SEAFORTH_TS  | 126.43 | 123.28 | -2.49  | 123.46          | -2.35  |
| 7310  | SEAFORTH_JL7 | 126.42 | 123.27 | -2.49  | 123.45          | -2.35  |
| 7311  | SEAF_LSO_61M | 126.41 | 123.27 | -2.49  | 123.44          | -2.35  |
| 7722  | SEAFORTH_TS  | 29.08  | 28.33  | -2.59  | 29.09           | 0.05   |
| 6556  | WINGHAM_JB23 | 244.00 | 239.45 | -1.87  | 239.64          | -1.79  |
| 7191  | STRATFD_JB23 | 243.09 | 239.98 | -1.28  | 240.14          | -1.21  |
| 2     | GOSHEN_TAP   | 125.14 | 121.94 | -2.56  | 122.22          | -2.33  |
| 7334  | CONSTANCE_DS | 125.25 | 122.01 | -2.59  | 122.21          | -2.43  |
| 7628  | CONSTANCE_B2 | 29.18  | 28.40  | -2.70  | 29.16           | -0.08  |
| 7630  | CONSTANCE_B1 | 29.18  | 28.39  | -2.70  | 29.16           | -0.08  |
| 7350  | GODERICH_TS  | 124.69 | 121.35 | -2.68  | 121.59          | -2.48  |
| 7652  | GODERICH_TS  | 29.42  | 28.58  | -2.88  | 29.03           | -1.33  |
| 7372  | KIRKTON_J    | 124.59 | 121.37 | -2.58  | 121.69          | -2.33  |
| 7325  | BIDDULPH_J   | 123.65 | 120.32 | -2.69  | 120.71          | -2.37  |
| 7465  | GRD_BEND_E_J | 120.87 | 117.45 | -2.83  | 117.85          | -2.50  |
| 7349  | GRD_BEND_EAS | 120.87 | 117.45 | -2.83  | 117.85          | -2.50  |
| 7651  | GRD_BEND_EB1 | 29.32  | 28.45  | -2.95  | 29.24           | -0.26  |
| 7682  | GRD_BEND_EB2 | 29.32  | 28.45  | -2.95  | 29.24           | -0.26  |
| 7351  | GR_BEND      | 120.80 | 117.38 | -2.83  | 1 <b>1</b> 7.78 | -2.50  |
| 7650  | GR_BEND      | 4.24   | 4.11   | -2.95  | 4.13            | -2.61  |
| 7332  | CENTRALIA_TS | 123.65 | 120.32 | -2.69  | 120.71          | -2.37  |
| 7624  | CENTRALIA_TS | 29.26  | 28.43  | -2.83  | 29.34           | 0.27   |
| 7375  | MCGILLIVRAY  | 123.54 | 120.21 | -2.70  | 120.60          | -2.38  |
| 7701  | MCGILLIVRAY  | 4.44   | 4.32   | -2.74  | 4.33            | -2.42  |
| 7339  | DEVIZES_J    | 123.92 | 120.80 | -2.52  | 121.10          | -2.27  |
| 7356  | EN_BRYANSTON | 123.90 | 120.77 | -2.52  | 121.08          | -2.28  |
| 7666  | EN_BRYANSTON | 4.46   | 4.35   | -2.55  | 4.36            | -2.30  |
| 7379  | PORTLAND_J   | 122.82 | 119.83 | -2.43  | 120.13          | -2.19  |
| 7384  | ST_MARYS_L7S | 122.74 | 119.77 | -2.41  | 120.07          | -2.17  |
| 7733  | ST_MARYS_BY  | 14.75  | 14.50  | -1.71  | 14.52           | -1.56  |
| 7383  | ST_MARYS_CEM | 122.73 | 119.75 | -2.43  | 120.05          | -2.19  |
| 7732  | ST_MARYS_CEM | 4.43   | 4.32   | -2.49  | 4.33            | -2.24  |
| 7385  | ST_MARYS_D8S | 121.79 | 120.44 | -1.11  | 120.53          | -1.04  |
| 5600  | WAT_RUSH_D8S | 122.83 | 121.98 | -0.69  | 122.04          | -0.64  |
| 6206  | WAT_RUSH_MTS | 14.47  | 14.37  | -0.72  | 14.56           | 0.62   |
| 5404  | DETWEILER TS | 123.18 | 122.36 | -0.67  | 122.41          | -0.62  |

**Table A7.** Voltage deviations due to loss of B22D and Seaforth T5 with Kingsbridge WF O/S, Goshen WEC O/S, and Bluewater WEC I/S.

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|       |              | W/O    |        |        |         |        |
|-------|--------------|--------|--------|--------|---------|--------|
| BUS # | BUS NAME     | BASE V | TAPS   | %Delta | W/ TAPS | %Delta |
| 7111  | SEAFORTH_B23 | 242.58 | 238.76 | -1.57  | 238.95  | -1.50  |
| 7306  | SEAFORTH_TS  | 125.98 | 123.36 | -2.07  | 123.50  | -1.96  |
| 7310  | SEAFORTH_JL7 | 125.97 | 123.36 | -2.07  | 123.50  | -1.96  |
| 7311  | SEAF_LSO_61M | 125.96 | 123.35 | -2.07  | 123.49  | -1.96  |
| 7722  | SEAFORTH_TS  | 29.04  | 28.41  | -2.15  | 29.21   | 0.58   |
| 6556  | WINGHAM_JB23 | 244.05 | 240.43 | -1.49  | 240.58  | -1.42  |
| 7191  | STRATFD_JB23 | 242.85 | 240.32 | -1.04  | 240.46  | -0.98  |
| 2     | GOSHEN_TAP   | 124.24 | 122.21 | -1.64  | 122.36  | -1.52  |
| 7334  | CONSTANCE_DS | 124.76 | 122.10 | -2.14  | 122.26  | -2.01  |
| 7628  | CONSTANCE_B2 | 29.06  | 28.42  | -2.23  | 29.17   | 0.38   |
| 7630  | CONSTANCE_B1 | 29.06  | 28.42  | -2.23  | 29.17   | 0.38   |
| 7350  | GODERICH_TS  | 124.16 | 121.44 | -2.18  | 121.64  | -2.02  |
| 7652  | GODERICH_TS  | 29.25  | 28.60  | -2.23  | 29.05   | -0.70  |
| 7372  | KIRKTON_J    | 123.62 | 121.57 | -1.66  | 121.74  | -1.53  |
| 7325  | BIDDULPH_J   | 122.65 | 120.53 | -1.73  | 120.73  |        |
| 7465  | GRD_BEND_E_J | 119.84 | 117.66 | -1.82  | 117.87  | -1.65  |
| 7349  | GRD_BEND_EAS | 119.84 | 117.66 | -1.82  | 117.87  | -1.65  |
| 7651  | GRD_BEND_EB1 | 29.29  | 28.74  | -1.90  | 29.25   | -0.15  |
| 7682  | GRD_BEND_EB2 | 29.29  | 28.74  | -1.90  | 29.25   | -0.15  |
| 7351  | GR_BEND      | 119.78 | 117.59 | -1.82  | 117.80  | -1.65  |
| 7650  | GR_BEND      | 4.20   | 4.12   | -1.90  | 4.13    | -1.72  |
| 7332  | CENTRALIA_TS | 122.65 | 120.52 | -1.73  | 120.73  | -1.57  |
| 7624  | CENTRALIA_TS | 29.01  | 28.48  | -1.82  | 28.94   | -0.25  |
| 7375  | MCGILLIVRAY  | 122.54 | 120.42 | -1.74  | 120.62  | -1.57  |
| 7701  | MCGILLIVRAY  | 4.40   | 4.32   | -1.76  | 4.33    | -1.59  |
| 7339  | DEVIZES_J    | 122.85 | 120.83 | -1.65  | 120.99  | -1.51  |
| 7356  | EN_BRYANSTON | 122.83 | 120.81 | -1.65  | 120.97  | -1.52  |
| 7666  | EN_BRYANSTON | 4.42   | 4.35   | -1.66  | 4.36    | -1.53  |
| 7379  | PORTLAND_J   | 121.50 | 119.52 | -1.63  | 119.67  | -1.51  |
| 7384  | ST_MARYS_L7S | 121.39 | 119.41 | -1.63  | 119.57  | -1.50  |
| 7733  | ST_MARYS_BY  | 14.68  | 14.52  | -1.13  | 14.53   | -1.04  |
| 7383  | ST_MARYS_CEM | 121.42 | 119.43 | -1.64  | 119.59  | -1.51  |
| 7732  | ST_MARYS_CEM | 4.39   | 4.31   | -1.68  | 4.32    | -1.54  |
| 7385  | ST_MARYS_D8S | 121.93 | 121.06 | -0.72  | 121.13  | -0.66  |
| 5600  | WAT_RUSH_D8S | 122.77 | 122.12 | -0.53  | 122.17  | -0.49  |
| 6206  | WAT_RUSH_MTS | 14.46  | 14.38  | -0.55  | 14.58   | 0.78   |
| 5404  | DETWEILER TS | 123.12 | 122.47 | -0.52  | 122.52  | -0.48  |

**Table A8.** Voltage deviations due to loss of B22D and Seaforth T5 with Kingsbridge WF O/S, Goshen WEC I/S, and Bluewater WEC I/S.

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The short circuit levels at the customers interface point as well as the major buses in the Seaforth/L7S area are shown in Table B1, B2 and B3. Table B4 shows the short circuit level compare to the breaker ratings.

The short circuit study was carried out with the following facilities and system assumptions:

### Scenario 1: EXISTING SYSTEM (results in Table B1)

**Existing Generation Facilities:** 

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|                          | Sout                      | h West                         |                     |  |
|--------------------------|---------------------------|--------------------------------|---------------------|--|
| Name                     | Units/Capacity            | Name                           | Units/Capacity      |  |
| Nanticoke                | G1, G2, G5-G8             | Kingsbridge WGS                | 39.6 MW             |  |
| Halton Hills GS          | G1-G3                     | Amaranth WGS                   | 199.5 MW            |  |
|                          | Bı                        | ruce                           |                     |  |
| Name                     | Units/Capacity            | Name                           | Units/Capacity      |  |
| Bruce A                  | G1-G4                     | Ripley WGS                     | 76 MW               |  |
| Bruce B                  | G5-G8                     | Underwood WGS                  | 198 MW              |  |
| Bruce A Standby          | SG1                       |                                |                     |  |
|                          | W                         | /est                           |                     |  |
| Name                     | Units/Capacity            | Name                           | Units/Capacity      |  |
| Lambton units            | G3-G4                     | Imperial Oil                   | G1                  |  |
| Brighton Beach           | G1, G1A, G1B              | Kruger Port Alma WGS           | 101.2 MW            |  |
| Greenfield Energy Centre | G1-G4                     | Gosfield Wind Project          | 50.6 MW             |  |
| St. Clair Energy Centre  | CTG3, STG3,<br>CTG4, STG4 | Kruger Energy Chatham WF       | 101 MW              |  |
| East Windsor Cogen       | G1-G2                     | Raleigh Wind Energy Centre     | 78 MW               |  |
| TransAlta Sarnia         | G861, G871,<br>G881, G891 | Talbot Wind Farm               | 98.9 MW             |  |
| Ford Windsor CTS         | STG5                      | Dow Chemicals                  | G1, G2, G5          |  |
| TransAlta Windsor        | G1, G2                    | Port Burwell (Erie Shores) WGS | 99 MW               |  |
| West Windsor Power       | G1, G2                    | Fort Chicago London Cogen      | 23 MVA<br>aggregate |  |
|                          |                           | Great Northern Tri-Gen Cogen   | 15 MVA<br>aggregate |  |
|                          | To                        | ronto                          |                     |  |
| Name                     | Units/Capacity            | Name                           | Units/Capacity      |  |
| Pickering units          | G1, G4-G8                 | Sithe Goreway                  | G11-13, G15         |  |
| Darlington               | G1-G4                     | TransAlta Douglas              | G1-G3               |  |
| Portlands GS             | G1-G3                     | GTAA                           | G1-G3               |  |
| Algonquin Power          | G1, G2                    | Brock west                     | G1                  |  |
| Whitby Cogen             | G1                        |                                |                     |  |
|                          | Nia                       | igara                          |                     |  |
| Name                     | Units/Capacity            | Name                           | Units/Capacity      |  |
| Thorold GS               | GTG1, STG2                | Beck 2                         | G11-G26             |  |
| Beck 1                   | G3-G10                    | Beck 2 PGS                     | G1-G6               |  |

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| Zone      | Project Name                          | CAA ID   | Generation Type | Capacity |
|-----------|---------------------------------------|----------|-----------------|----------|
| Bruce     | Bruce G1, G2                          | 2004-163 | Nuclear         | 1670M    |
| Essa      | York Energy Centre                    | 2008-348 | Simple Cycle    | 408MV    |
|           | Conestogo Wind Energy Centre 1        | 2010-387 | Wind            | 67.5MW   |
| Southwest | Dufferin Wind Farm                    | 2010-396 | Wind            | 98.9MW   |
|           | Summerhaven Wind Farm                 | 2010-388 | Wind            | 125MW    |
|           | Port Dover and Nanticoke Wind Project | 2010-398 | Wind            | 104.4M   |
|           | Grand Renewable Energy Park           | 2010-399 | Wind + Solar    | 254MW    |
| Toronto   | Greenfield South                      | 2004-178 | Combined Cycle  | 284MW    |
|           | Comber East C24Z                      | 2010-381 | Wind            | 82.8MW   |
| NV a at   | Comber West C23Z                      | 2010-382 | Wind            | 82.8MW   |
| west      | Pointe-Aux-Roches Wind                | 2010-383 | Wind            | 48.6MW   |
|           | South Kent Wind Farm                  | 2010-405 | Wind            | 270MW    |

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**Committed Generation Facilities:** 

Embedded Generation

| Name             | EG size (kW) |      | Name           | EG size (kW) |  |  |  |  |  |
|------------------|--------------|------|----------------|--------------|--|--|--|--|--|
|                  | ŀ            | Essa |                |              |  |  |  |  |  |
| ARMITAGE TS      | 2630         |      | MIDHURST TS    | 23499        |  |  |  |  |  |
| BEAVERTON TS     | 70500        | ]    | MUSKOKA TS     | 25330        |  |  |  |  |  |
| BROWN HILL TS    | 30026.52     |      | ORILLIA TS     | 30010        |  |  |  |  |  |
| HOLLAND TS       | 2100         |      | Wallace TS     | 3950         |  |  |  |  |  |
| LINDSAY TS       | 34499        |      | WAUBAUSHENE TS | 41250        |  |  |  |  |  |
|                  | Sou          | thw  | vest           |              |  |  |  |  |  |
| BLOOMSBURG MTS   | 10200        |      | HANOVER TS     | 25500        |  |  |  |  |  |
| CALEDONIA TS     | 20915        |      | JARVIS TS      | 1510         |  |  |  |  |  |
| CAMBRIDGE NDUM   |              |      |                | 1            |  |  |  |  |  |
| MTS#1            | 1741         |      | MEAFORD TS     | 28492.4      |  |  |  |  |  |
| CAMPBELL TS DESN | 1 4250       |      | NEBO TS DESN 1 | 3200         |  |  |  |  |  |
| CENTRALIA TS     | 1184.6       |      | NORFOLK TS     | 30990        |  |  |  |  |  |
| Detweiler TS     | 6225         | ]    | ORANGEVILLE    | 46525        |  |  |  |  |  |
| ELMIRA TS        | 3117         |      | OWEN SOUND     | 2300         |  |  |  |  |  |
| FERGUS TS        | 43454        | ]    | PALMERSTON TS  | 1550.4       |  |  |  |  |  |
| GALT TS          | 1258         |      | SCHEIFELE MTS  | 1125         |  |  |  |  |  |
| GODERICH TS      | 1060         |      | STAYNER TS     | 78535        |  |  |  |  |  |
| HALTON TS        | 1050         |      | STRATFORD TS   | 1140         |  |  |  |  |  |
| SEAFORTH TS      | 15000        |      | WINGHAM TS     | 18000        |  |  |  |  |  |
|                  | В            | ruc  | e              |              |  |  |  |  |  |
| Name             | EG size (kW) |      | Name           | EG size (kW) |  |  |  |  |  |
| DOUGLAS POINT TS | 26385        |      |                |              |  |  |  |  |  |
| West             |              |      |                |              |  |  |  |  |  |
| Name             | EG size (kW) |      | Name           | EG size (kW) |  |  |  |  |  |
| BELLE RIVER      | 10000        |      | ST.ANDREWS     | 20000        |  |  |  |  |  |
| BELLEVILLE       | 52687        |      | ST.THOMAS      | 10850        |  |  |  |  |  |
| BUCHANAN TS      | 23075        |      | STRATHROY TS   | 17650        |  |  |  |  |  |

| EDGEWARE TS   | 12357 | TILBURY        | 5000    |
|---------------|-------|----------------|---------|
| FOREST JURA   | 13300 | TILBURY WEST   | 10000   |
| INGERSOLL TS  | 19935 | TILLSONBURG    | 31145   |
| KEITH         | 45000 | WALKER         | 1143    |
| KENT          | 72530 | WALLACEBURG    | 10750   |
| KINGSVILLE TS | 19585 | WANSTEAD       | 12400   |
|               |       | WINDSOR MALDEN |         |
| LAMBTON       | 40000 | TS             | 51450   |
| LAUZON        | 22290 | WONDERLAND TS  | 1048.72 |
| MODELAND TS   | 62400 | WOODSTOCK TS   | 2390    |
| HIGHBURY      | 18000 |                |         |

Transmission System Upgrades

- Leaside Bridgman reinforcement: Leaside TS to Birch JCT: build new 115 kV circuit and birch to Bayfield: replace 115 kV cables (CAA2006-238) (COD: Q1 2014);
- St. Catherines 115 kV circuit upgrade: circuits D9HS, D10S and Q11S (CAA2007-257) (COD: inservice);
- Tilbury West DS second connection point for DESN arrangement using K2Z and K6Z (CAA2008-332) (COD: indefinite);
- Second 500kV Bruce-Milton double-circuit line (CAA2006-250) (COD: Q4 2012);
- Woodstock Area transmission reinforcement (CAA2006-253);
  - Karn TS in service and connected to M31W & M32W at Ingersol TS (COD: Q4 2011)
  - W7W/W12W terminated at LFarge CTS (COD: Q4 2011)
  - Woodstock TS connected to Karn TS (COD: Q4 2011)
- Lower Mattagami expansion H22D line extension from Harmon to Kipling (CAA2006-239) (COD: Q1 2014);
- Rodney (Duart) TS DESN connected to W44LC and W45LS 230 kV circuits (CAA2007-260) (COD: Q2 2012)

Note: The project of Windsor area transmission reinforcement (CAA2008-318) in previous scope of work has been cancelled.

System Operating Conditions

Maximum voltages on the buses

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Table B1. Max bus faults of existing system before incorporating the new FIT3 (plus Samsung) projects.

|       |          |         |       | BRKER | x      | THREE I | PHASE FAU | LTX         | X LINE | TO GROU | ND FAULTX   | X- LLG S | YMM I -X |        |        |         |        |
|-------|----------|---------|-------|-------|--------|---------|-----------|-------------|--------|---------|-------------|----------|----------|--------|--------|---------|--------|
| BUS#  | X NAME   | X BASKV | MAX V | TIME  | FLTHVA | SYMM I  | ASYMM I   | X/R FACTOR  | SYMM I | ASYMM I | X/R FACTOR  | PHASE    | 31A0     | RPOS   | XPOS   | RZERO   | XZERO  |
| 7350  | GODERICH | 118.05  | 1.076 | 0.025 | 723.6  | 3.539   | 3.734     | 4.56 1.055  | 2.298  | 2.368   | 3.67 1.031  | 3.181    | 1.701    | 0.0326 | 0.1487 | 0.1218  | 0.3897 |
| 7334  | CONSTANC | 118.05  | 1.076 | 0.025 | 1140.1 | 5.576   | 5.953     | 5.31 1.068  | 3.944  | 4.131   | 4.42 1.047  | 5.064    | 3.052    | 0.0178 | 0.0944 | 0.0550  | 0.2115 |
| 7306  | SEAFORTH | 118.05  | 1.076 | 0.025 | 2364.7 | 11.565  | 13.947    | 13.69 1.206 | 13.637 | 17.580  | 15.76 1.289 | 13.012   | 16.614   | 0.0033 | 0.0455 | 0.0007  | 0.0248 |
| 7110  | SEAF B22 | 220.00  | 1.136 | 0.025 | 2843.7 | 7.463   | 8,721     | 11.43 1.169 | 6.883  | 8.807   | 14.98 1.280 | 7.209    | 6.387    | 0.0035 | 0.0399 | 0.0017  | 0.0500 |
| 7111  | SEAF B23 | 220.00  | 1.136 | 0.025 | 2847.3 | 7.472   | 8.732     | 11.43 1.169 | 7.031  | 8.984   | 14.90 1.278 | 7.273    | 6.638    | 0.0035 | 0.0399 | 0.0016  | 0.0474 |
| 7356  | EN BRYAN | 118.05  | 1.076 | 0.025 | 597.7  | 2.923   | 3.087     | 4.61 1.056  | 1.801  | 1.868   | 3.95 1.037  | 2,614    | 1.301    | 0.0390 | 0.1800 | 0.1436  | 0.5166 |
| 7383  | ST M CEM | 118.05  | 1.076 | 0.025 | 496.5  | 2.428   | 2.636     | 6.40 1.086  | 1.438  | 1.501   | 4.28 1.044  | 2.164    | 1.021    | 0.0338 | 0.2167 | 0.1889  | 0.6645 |
| 7384  | ST MARL7 | 118.05  | 1.076 | 0.025 | 508.9  | 2.489   | 2.742     | 7.38 1.102  | 1.468  | 1.536   | 4.40 1.047  | 2.217    | 1.041    | 0.0287 | 0.2115 | 0.1874  | 0.6527 |
| 7385  | ST MARD8 | 118.05  | 1.076 | 0.025 | 581.8  | 2.845   | 3.109     | 6.84 1.093  | 1.526  | 1.615   | 4.91 1.058  | 2.519    | 1.043    | 0.0270 | 0.1850 | 0.1564  | 0.6644 |
| 7351  | LKHR WTP | 118.05  | 1.076 | 0.025 | 372.9  | 1,824   | 1.873     | 2.46 1.027  | 1.153  | 1.172   | 2.77 1.017  | 1.635    | 0.843    | 0.1171 | 0.2886 | 0.2603  | 0.7924 |
| 7349  | G BEND E | 118.05  | 1.076 | 0.025 | 385.6  | 1.886   | 1.938     | 2.52 1.028  | 1.194  | 1.214   | 2.80 1.017  | 1.690    | 0.873    | 0.1108 | 0.2791 | 0.2502  | 0.7646 |
| 7375  | MCGILLIV | 118.05  | 1.076 | 0.025 | 476.4  | 2.330   | 2.423     | 3.62 1.040  | 1.457  | 1.497   | 3.50 1.028  | 2.086    | 1.060    | 0.0624 | 0.2259 | 0.1846  | 0.6319 |
| 7332  | CENTRL7S | 118.05  | 1.076 | 0.025 | 606.0  | 2.964   | 3.109     | 4.18 1.049  | 1.917  | 1.974   | 3.63 1.030  | 2.663    | 1.416    | 0.0425 | 0.1775 | 0.1420  | 0.4686 |
| 5600  | RUSH D8S | 118.05  | 1.076 | 0.025 | 2826.1 | 13.822  | 15.152    | 7.04 1.096  | 11.231 | 12.196  | 6.18 1.086  | 12.870   | 9.458    | 0.0054 | 0.0381 | 0.0119  | 0.0644 |
| 5601  | RUSH D10 | 118.05  | 1.076 | 0.025 | 2865.0 | 14.012  | 15.408    | 7.25 1.100  | 11.289 | 12.285  | 6.28 1.088  | 13.023   | 9.452    | 0.0052 | 0.0376 | 0.0119  | 0.0647 |
| 5404  | DEIWEILE | 118.05  | 1.076 | 0.025 | 4958.3 | 24.250  | 30.579    | 17.68 1.261 | 27.114 | 36.242  | 19.72 1.337 | 26.026   | 30.745   | 0.0012 | 0.0217 | 0.0005  | 0.0148 |
| 5103  | DETWEILE | 220.00  | 1.136 | 0.025 | 8728.3 | 22.906  | 26.840    | 11.62 1.172 | 19.797 | 25.273  | 14.85 1.277 | 21.667   | 17.431   | 0.0011 | 0.0130 | 0.0008  | 0.0191 |
| 6557  | WINGHB22 | 220.00  | 1.136 | 0.025 | 2708.6 | 7.108   | 8.275     | 11.16 1.164 | 5.197  | 5.608   | 5.86 1.079  | 6.488    | 4.096    | 0.0038 | 0.0419 | 0.0218  | 0.0882 |
| 6558  | WINGHB23 | 220.00  | 1.136 | 0.025 | 2714.9 | 7.125   | 8.294     | 11.16 1.164 | 5.246  | 5.656   | 5.82 1.078  | 6.510    | 4.152    | 0.0038 | 0.0418 | 0.0218  | 0.0868 |
| 7192  | STRTFB22 | 220.00  | 1.136 | 0.025 | 3131.5 | 8,218   | 9.322     | 9.35 1.134  | 6.108  | 6.686   | 6.57 1.095  | 7.520    | 4.860    | 0.0039 | 0.0363 | 0.0145  | 0.0739 |
| 71,93 | STRTFB23 | 220.00  | 1.136 | 0.025 | 3149.4 | 8.265   | 9.395     | 9.50 1.137  | 6.148  | 6.731   | 6.59 1.095  | 7.565    | 4.894    | 0.0038 | 0.0361 | 0.0145  | 0.0733 |
| 7652  | GODERICH | 27.600  | 1.051 | 0.067 | 322.4  | 6.745   | 6.745     | 6.96 1.000  | 6.963  | 6.963   | 9.15 1.000  | 6.860    | 7.195    | 0.0469 | 0.3260 | 0.0098  | 0.2954 |
| 7630  | CONST B1 | 27.600  | 1.051 | 0.067 | 136.6  | 2.858   | 2.858     | 14.56 1.000 | 3.098  | 3.140   | 15.88 1.014 | 2,998    | 3.381    | 0.0528 | 0.7691 | 0.0284  | 0.5909 |
| 7628  | CONST B2 | 27.600  | 1.051 | 0.067 | 136.5  | 2.856   | 2.856     | 14.68 1.000 | 3.095  | 3.140   | 16.03 1.015 | 2,995    | 3.377    | 0.0524 | 0.7699 | 0.0281  | 0.5915 |
| 7722  | SEAFORTH | 27.600  | 1.051 | 0.067 | 576.8  | 12.067  | 12.067    | 18.95 1.000 | 9.997  | 10.632  | 22.70 1.064 | 11.287   | 8.533    | 0.0096 | 0.1822 | 0.0098  | 0.2954 |
| 7666  | EN BRYAN | 4.1600  | 1.000 | 0.067 | 82.8   | 11.485  | 11.485    | 13.13 1.000 | 12.490 | 12.490  | 0.02 1.000  | 12.073   | 13.687   | 0.0921 | 1.2084 | ******  | 0.9168 |
| 7732  | ST M CEM | 4.1600  | 1.000 | 0.067 | 176.2  | 24,459  | 24.459    | 10.69 1.000 | 28.993 | 28.993  | 0.03 1.000  | 27.665   | 35.591   | 0.0531 | 0,5674 | 53.0263 | 0.3012 |
| 7733  | ST MARYS | 13.800  | 1.029 | 0.067 | 277.6  | 11.614  | 11.614    | 15.36 1.000 | 5.610  | 6.198   | 28.35 1.105 | 10.226   | 3.698    | 0.0241 | 0.3707 | 0.0329  | 1.5608 |
| 7650  | LKHR WTP | 4.1600  | 1.000 | 0.067 | 92.6   | 12.856  | 12.856    | 6.13 1.000  | 0.000  | 0.000   | 1.00 1.000  | 11.133   | 0.000    | 0.1762 | 1.0796 | *****   | ****** |
| 7651  | G BD EB1 | 27.600  | 1.051 | 0.067 | 107.3  | 2.244   | 2.244     | 5.80 1.000  | 2.595  | 2.595   | 6.85 1.000  | 2,479    | 3.077    | 0.1690 | 0.9796 | 0.0330  | 0.5820 |
| 7682  | G BD EB2 | 27,600  | 1.051 | 0.067 | 107.3  | 2.244   | 2.244     | 5.80 1.000  | 2.595  | 2.595   | 6.85 1.000  | 2.479    | 3.077    | 0.1690 | 0.9796 | 0.0330  | 0.5820 |
| 7701  | MCGILLIV | 4.1600  | 1.000 | 0.067 | 111.5  | 15.469  | 15.469    | 7.98 1.000  | 0.000  | 0.000   | 1.00 1.000  | 13.397   | 0.000    | 0.1124 | 0.8972 | *****   | ****** |
| 7624  | CENTRALI | 27.600  | 1.051 | 0.067 | 256.7  | 5.370   | 5.370     | 7.14 1.000  | 5.920  | 5.920   | 8.95 1.000  | 5.701    | 6.595    | 0.0573 | 0.4094 | 0.0098  | 0.2954 |
| 6206  | RUSH     | 13.800  | 1.029 | 0.067 | 421.7  | 17.645  | 17.645    | 19.39 1.000 | 19.050 | 19.958  | 20.52 1.048 | 18.455   | 20.698   | 0.0126 | 0.2440 | 0.0079  | 0.1900 |
| 6008  | DETWEIBY | 27.600  | 1.051 | 0.067 | 696.1  | 14.561  | 14.561    | 18.88 1.000 | 6.808  | 7.088   | 19.64 1.041 | 12.804   | 4.443    | 0.0080 | 0.1510 | 0.0333  | 0.6668 |
| 6795  | WINGHAM  | 44.000  | 1.045 | 0.067 | 729.5  | 9.572   | 9.820     | 27.19 1.026 | 10.325 | 11.583  | 30.68 1.122 | 10.006   | 11.206   | 0.0053 | 0.1433 | 0.0024  | 0.1119 |
| 7737  | STRATFOR | 27.600  | 1.051 | 0.067 | 680.3  | 14.231  | 14.400    | 24.38 1.012 | 10.642 | 12.092  | 32.65 1.136 | 13.036   | 8.498    | 0.0063 | 0.1545 | 0.0063  | 0.3108 |

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## Scenario 2: All new FIT3 plus Samsung Projects (results in Table B2)

Generation:

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### Tx Connected – FIT3

| Zone    | Project Name                            | CAA ID   | Generation<br>Type | Capacity<br>(KW) |
|---------|-----------------------------------------|----------|--------------------|------------------|
|         | Bluewater Wind Energy Centre            | 2011-440 | Wind               | 60,000           |
|         | Jericho Wind Energy Centre              | 2011-441 | Wind               | 150,000          |
| Bruce   | Bornish Wind Energy Centre              | 2011-443 | Wind               | 73,500           |
|         | Goshen Wind Energy Centre               | 2011-444 | Wind               | 102,000          |
|         | Cedar Point Wind Power Project Phase II | 2011-445 | Wind               | 100,000          |
|         | Adelaide Wind Energy Centre             | 2011-446 | Wind               | 60,000           |
|         | Grand Bend Wind Farms                   | 2011-447 | Wind               | 100,000          |
|         | Grand Valley Wind Farms (Phase 3)       | 2011-448 | Wind               | 40,000           |
|         | K2 wind                                 | 2011-452 | Wind               | 270,000          |
|         | Erieau Wind                             | 2011-438 | Wind               | 99,000           |
|         | East Lake St. Clair Wind                | 2011-439 | Wind               | 99,000           |
| West of | Adelaide Wind Power Project             | 2011-442 | Wind               | 40,000           |
| Longon  | Gunn's Hill Wind Farm                   | 2011-449 | Wind               | 25,000           |
|         | Silvercreek Solar Park                  | 2011-450 | Solar              | 10,000           |

### Tx Connected - Samsung

| Zone  | Project Name | Proposed Size | oposed Size Connection Point               |             |  |  |  |  |  |
|-------|--------------|---------------|--------------------------------------------|-------------|--|--|--|--|--|
| Bruce | Armow        | 180           | B22D/B23D (2 km east of Majestic Junction) | Siemens WTG |  |  |  |  |  |
| East  | Kingston     | 100           | X4H (27 km from Lennox)                    | Solar       |  |  |  |  |  |

### Dx Connected - FIT3

| Zone    | Project Name                       | <u>Station</u> | <u>Generation</u><br><u>Type</u> | <u>Capacity</u><br><u>(KW)</u> |
|---------|------------------------------------|----------------|----------------------------------|--------------------------------|
|         | East Durham Wind Energy Centre     | Hanover TS     | Wind                             | 23,000                         |
| Bruce   | St. Columban 2 Wind Energy Project | Seaforth TS    | Wind                             | 15,000                         |
|         | St. Columban 1 Wind Energy Project | Wingham TS     | Wind                             | 18,000                         |
|         | Majestic Wind Farm                 | Douglas Point  | Wind                             | 2,000                          |
|         | Meyer Wind Farm                    | Douglas Point  | Wind                             | 4,000                          |
|         | Q1WEC                              | Douglas Point  | Wind                             | 2,500                          |
|         | RE Adelaide 1                      | Strathroy TS   | Solar                            | 4,000                          |
|         | RE Sunningdale 1                   | Highbury TS    | Solar                            | 7,000                          |
| West of | RE Adelaide 1a                     | Strathroy TS   | Solar                            | 2,500                          |
| London  | RE Adelaide 1b                     | Strathroy TS   | Solar                            | 2,000                          |
|         | Napier Wind Farm                   | Strathroy TS   | Wind                             | 5,400                          |
|         | Ruby Farms Solar One               | Strathroy TS   | Solar                            | 2,000                          |

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CIA – Goshen Wind Energy Centre Transmission System Upgrades

• Same as scenario 1

System Operating Conditions

Maximum voltages on the buses

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Table B2. Max bus faults after incorporating all new FIT3 (plus Samsung) projects.

|       |           |            |       | BRKER | X      | THREE I | PHASE FAU  | LTX          | X LINE | TO GROU | ND FAULTX   | X- LLG S | YMM I -X |        |        |         |         |
|-------|-----------|------------|-------|-------|--------|---------|------------|--------------|--------|---------|-------------|----------|----------|--------|--------|---------|---------|
| BUS#  | X NAME    | X BASKV M  | IAX V | TIME  | FLTMVA | SYMM I  | ASYMM I    | X/R FACTOR   | SYMM I | ASYMM I | X/R FACTOR  | PHASE    | 31A0     | RPOS   | XPOS   | RZERO   | XZERO   |
| 7350  | GODERICH  | 118.05 1   | .076  | 0.025 | 754.8  | 3.691   | 3.889      | 4.46 1.054   | 2.360  | 2.429   | 3.60 1.029  | 3.312    | 1.734    | 0.0320 | 0.1426 | 0.1218  | 0.3839  |
| 7334  | CONSTANC  | 118.05 1   | 076   | 0.025 | 1227.1 | 6.001   | 6.393      | 5.17 1.065   | 4.142  | 4.326   | 4.29 1.044  | 5.433    | 3.163    | 0.0170 | 0.0877 | 0.0549  | 0.2057  |
| 7306  | SEAFORTH  | 118.05 1   | .076  | 0.025 | 2806.9 | 13.728  | 16.966     | 15.67 1.236  | 16.342 | 21.385  | 17.38 1.309 | 15.595   | 20.184   | 0.0024 | 0.0383 | 0.0007  | 0.0199  |
| 7110  | SEAF B22  | 220.00 1   | 136   | 0.025 | 3071.3 | 8.060   | 9.681      | 13.40 1.201  | 7.543  | 9.797   | 16.56 1.299 | 7.828    | 7.089    | 0.0028 | 0.0370 | 0.0016  | 0.0446  |
| 7111  | SEAF B23  | 220.00 1   | .136  | 0.025 | 3194.2 | 8.383   | 10.085     | 13.52 1.203  | 8.372  | 10.812  | 15.96 1.292 | 8.377    | 8.360    | 0.0026 | 0.0356 | 0.0014  | 0.0357  |
| 7356  | EN BRYAN  | 118.05 1   | 076   | 0.025 | 656.6  | 3.211   | 3.392      | 4.61 1.056   | 2.090  | 2.166   | 3.92 1.036  | 2.887    | 1.549    | 0.0355 | 0.1639 | 0.1216  | 0.4277  |
| 7383  | ST M CEM  | 118.05 1   | .076  | 0.025 | 533.4  | 2.609   | 2.823      | 6.20 1.082   | 1.612  | 1.681   | 4.22 1.043  | 2.333    | 1.167    | 0.0326 | 0.2017 | 0.1668  | 0.5757  |
| 7384  | ST MARL7  | 118.05 1   | .076  | 0.025 | 547.2  | 2.676   | 2.937      | 7.13 1.098   | 1.649  | 1.724   | 4.34 1.046  | 2.393    | 1.192    | 0.0276 | 0.1966 | 0.1653  | 0.5639  |
| 7385  | ST MARD8  | 118.05 1   | 076   | 0.025 | 584.2  | 2.857   | 3.125      | 6.89 1.094   | 1.529  | 1.618   | 4.92 1.058  | 2.529    | 1.044    | 0.0267 | 0.1842 | 0.1564  | 0.6643  |
| 7351  | LKHR WTP  | 118.05 1   | 076   | 0.025 | 396.4  | 1.939   | 1,990      | 2.42 1.027   | 1.267  | 1.286   | 2.69 1.015  | 1.744    | 0.941    | 0.1124 | 0.2714 | 0.2382  | 0.7036  |
| 7349  | G BEND E  | 118.05 1   | 076   | 0.025 | 410.8  | 2.009   | 2.064      | 2.47 1.027   | 1.316  | 1.337   | 2.72 1.016  | 1.807    | 0.978    | 0.1061 | 0.2619 | 0.2281  | 0.6758  |
| 7375  | MCGILLIV  | 118.05 1   | .076  | 0.025 | 515.5  | 2,521   | 2.621      | 3.62 1.040   | 1.644  | 1.688   | 3.46 1.027  | 2.267    | 1.219    | 0.0577 | 0.2087 | 0.1626  | 0.5431  |
| 7332  | CENTRL7S  | 118.05 1   | .076  | 0.025 | 670.8  | 3.280   | 3.445      | 4.24 1.050   | 2,253  | 2.318   | 3.58 1.029  | 2.968    | 1.716    | 0.0378 | 0.1604 | 0.1200  | 0.3798  |
| 5600  | RUSH D8S  | 118.05 1   | 076   | 0.025 | 2856.3 | 13.969  | 15.308     | 7.02 1.096   | 11.302 | 12.269  | 6.16 1.086  | 12.995   | 9.490    | 0.0054 | 0.0377 | 0.0119  | 0.0643  |
| 5601  | RUSH D10  | 118.05 1   | 076   | 0.025 | 2894.4 | 14.156  | 15.560     | 7.23 1.099   | 11.358 | 12.355  | 6.26 1.088  | 13.144   | 9.483    | 0.0051 | 0.0372 | 0.0119  | 0.0646  |
| 5404  | DETWEILE  | 118.05 1   | 076   | 0.025 | 5049.4 | 24.695  | 31.213     | 17.91 1.264  | 27.521 | 36.859  | 19.94 1.339 | 26.436   | 31.077   | 0.0012 | 0.0213 | 0.0005  | 0.0147  |
| 5103  | DETWEILE  | 220.00 1   | 136   | 0.025 | 9056.4 | 23.767  | 27.858     | 11.65 1.172  | 20.312 | 25.950  | 14.89 1.278 | 22,411   | 17.734   | 0.0011 | 0.0125 | 0.0008  | 0.0189  |
| 6557  | WINGHB22  | 220.00 1   | 136   | 0.025 | 2831.8 | 7.432   | 8.748      | 11.95 1.177  | 5.366  | 5.787   | 5.84 1.078  | 6.770    | 4.199    | 0.0034 | 0.0401 | 0.0218  | 0.0864  |
| 6558  | WINGHB23  | 220.00 1   | 136   | 0.025 | 2857.5 | 7.499   | 8.822      | 11.90 1.176  | 5.505  | 5.922   | 5.72 1.076  | 6.849    | 4.349    | 0.0033 | 0.0398 | 0.0217  | 0.0830  |
| 7192  | STRTFB22  | 220.00 1   | .136  | 0.025 | 3237.8 | 8.497   | 9.673      | 9.60 1.138   | 6.283  | 6.871   | 6.52 1.094  | 7.769    | 4.985    | 0.0037 | 0.0351 | 0.0145  | 0.0722  |
| 7193  | STRTFB23  | 220.00 1   | 136   | 0.025 | 3290.7 | 8.636   | 9.848      | 9.72 1.140   | 6.436  | 7.030   | 6.47 1.092  | 7,906    | 5.130    | 0.0036 | 0.0345 | 0.0144  | 0.0699  |
| 73060 | BLUEWTAP  | 118.05 1   | 076   | 0.025 | 1110.2 | 5.430   | 6.518      | 13.35 1.200  | 5.774  | 7.395   | 15.06 1.281 | 5.623    | 6.165    | 0.0073 | 0.0969 | 0.0036  | 0.0796  |
| 73101 | GOSHENTHV | 7 118.05 1 | 076   | 0.025 | 909.9  | 4.450   | 5.098      | 10.03 1.146  | 5.021  | 6.113   | 12.16 1.217 | 4.811    | 5.761    | 0.0118 | 0.1183 | 0.0023  | 0.0779  |
| 7652  | GODERICH  | 27.600 1   | 051   | 0.067 | 327.3  | 6.848   | 6.848      | 6.95 1.000   | 7.035  | 7.035   | 9.17 1.000  | 6.946    | 7.234    | 0.0462 | 0.3211 | 0.0098  | 0.2954  |
| 7630  | CONST B1  | 27.600 1   | .051  | 0.067 | 138.1  | 2.888   | 2.888      | 14.67 1.000  | 3.121  | 3.166   | 15.99 1.015 | 3.023    | 3.395    | 0.0519 | 0,7612 | 0.0284  | 0.5909  |
| 7628  | CONST B2  | 27.600 1   | 051   | 0.067 | 137.9  | 2.886   | 2.886      | 14.80 1.000  | 3.118  | 3.167   | 16.14 1.016 | 3.020    | 3.391    | 0.0515 | 0.7619 | 0.0281  | 0.5915  |
| 7722  | SEAFORTH  | 27.600 1   | 051   | 0.067 | 666.4  | 13.939  | 13.994     | 22,78 1.004  | 10.798 | 11.728  | 25.78 1.086 | 12.851   | 8.813    | 0.0069 | 0.1577 | 0.0098  | 0.2954  |
| 7666  | EN BRYAN  | 4.1600 1   | 000   | 0.067 | 83.9   | 11.649  | 11.649     | 13.48 1.000  | 12.619 | 12.619  | 0.02 1.000  | 12.213   | 13.764   | 0.0884 | 1.1914 |         | 0.9168  |
| 7732  | ST M CEM  | 4.1600 1   | 000   | 0.067 | 181.4  | 25,172  | 25,172     | 10.66 1.000  | 29.657 | 29.657  | 0.03 1.000  | 28.298   | 36.087   | 0.0517 | 0.5514 | 53.0263 | 0.3012  |
| 7733  | ST MARYS  | 13.800 1   | L.029 | 0.067 | 279.9  | 11.709  | 11.709     | 15.56 1.000  | 5.625  | 6.226   | 28.63 1.107 | 10.307   | 3.701    | 0.0236 | 0.3677 | 0.0329  | 1.5608  |
| 7650  | LKHR WTP  | 4.1600 1   | 1.000 | 0.067 | 94.2   | 13.069  | 13.069     | 6.20 1.000   | 0.000  | 0.000   | 1.00 1.000  | 11.318   | 0.000    | 0.1/13 | 1.0619 | 0 0220  | 0 0000  |
| 7651  | G BD EB1  | 27.600 1   | 1.051 | 0.067 | 109.6  | 2,292   | 2.292      | 5.87 1.000   | 2.638  | 2.538   | 6.95 1.000  | 2.521    | 3,107    | 0.1634 | 0.9592 | 0.0330  | 0.5820  |
| 7682  | G BD EB2  | 27.600 1   | 051   | 0.067 | 109.6  | 2,292   | 2.292      | 5.87 1.000   | 2.638  | 2.638   | 6.95 I.000  | 2,541    | 3.107    | 0.1634 | 0.9592 | 0.0330  | 0.5820  |
| 7701  | MCGILLIV  | 4.1600 1   | 1.000 | 0.067 | 113.7  | 15.787  | 15.787     | 8.18 1.000   | 0.000  | 0.000   | 1.00 1.000  | 13.672   | 0.000    | 0.1075 | 0.8791 | 0 0000  | 0 0054  |
| 7624  | CENTRALI  | 27.600 1   | L.051 | 0.067 | 268.2  | 5.611   | 5.611      | 7.48 1.000   | 6.112  | 6.112   | 9.41 1.000  | 5.906    | 6.713    | 0.0524 | 0.3910 | 0.0096  | 0.2954  |
| 6206  | RUSH      | 13.800 1   | 1.029 | 0.067 | 422.5  | 17.676  | 17.676     | 19.41 1.000  | 19.074 | 19.967  | 20.55 1.048 | 10,404   | 20.713   | 0.0125 | 0.2436 | 0.0073  | 0.1900  |
| 6008  | DETWEIBY  | 27.600 1   | 1.051 | 0.067 | 697.8  | 14.597  | 14.597     | 18.92 1.000  | 6.813  | 12 829  | 22 76 1 144 | 11 000   | 11 700   | 0.0080 | 0.1306 | 0.0333  | 0.0000  |
| 6795  | WINGHAM   | 44.000 1   | 1.045 | 0.067 | 819.5  | 10.753  | 14 593     | 30.29 1.041  | 10 680 | 12 202  | 22 26 1 141 | 13 143   | 2 514    | 0.0042 | 0 1571 | 0.0024  | 0.3109  |
| 7737  | STRATFOR  | 27.600 1   | 1.051 | 0.067 | 686.4  | 14.359  | 14.563     | 23.12 1.016  | 10.000 | 12.202  | 1 00 1 000  | 7 701    | 0.011    | 0.0089 | 0 1893 | ******* | ******* |
| 73061 | BLUEWT    | 34.500 1   | 1.000 | 0.067 | 531.4  | 0.893   | 10 5 6 9 3 | 21.35 1.000  | 0.002  | 0.002   | 1.00 1.000  | 9 153    | 0.001    | 0.0123 | 0 1593 | ******  | ******  |
| 73102 | GOSHENTLY | / 34.500 1 |       | 0.067 | 63I.6  | TO'268  | 10.569     | TT. 3T T.000 | 0.002  | 0.002   | 1.00 1.000  | 3.133    | 0.001    | 0.0123 | 0.1000 |         |         |

## Scenario 3: Incorporate Goshen WEC only (Results in Table B3)

Built off of scenario #1.

Generation:

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Tx Connected

| <u>Zone</u> | Project Name              | <u>CAA ID</u> | <u>Generation</u><br><u>Type</u> | <u>Capacity</u><br>(KW) |  |
|-------------|---------------------------|---------------|----------------------------------|-------------------------|--|
| Bruce       | Goshen Wind Energy Centre | 2011-444      | Wind                             | 102,000                 |  |

Transmission System Upgrades

• Same as scenario 1

System Operating Conditions

Maximum voltages on the buses

Table B3. Max bus faults after incorporating Goshen WEC only.

|       |           | BRKER X THREE PHASE FAULT X X LINE TO GROUND FAULTX X- LLG SYMM I -X |         |        |        |         |             |        |         |             |        |        |        |        |         |        |
|-------|-----------|----------------------------------------------------------------------|---------|--------|--------|---------|-------------|--------|---------|-------------|--------|--------|--------|--------|---------|--------|
| BUS#  | X NAME    | X BASKV MAX                                                          | V TIME  | FLTMVA | SYMM I | ASYMM I | X/R FACTOR  | SYMM I | ASYMM I | X/R FACTOR  | PHASE  | 3IA0   | RPOS   | XPOS   | RZERO   | XZERO  |
| 7350  | GODERICH  | 118.05 1.07                                                          | 6 0.025 | 736.9  | 3.604  | 3.799   | 4.49 1.054  | 2.321  | 2.391   | 3.64 1.030  | 3.236  | 1.711  | 0.0325 | 0.1460 | 0.1218  | 0.3883 |
| 7334  | CONSTANC  | 118.05 1.07                                                          | 6 0.025 | 1176.6 | 5.754  | 6.132   | 5.19 1.066  | 4.017  | 4.202   | 4.36 1.046  | 5,217  | 3.086  | 0.0176 | 0.0915 | 0.0550  | 0.2101 |
| 7306  | SEAFORTH  | 118.05 1.07                                                          | 6 0.025 | 2539.5 | 12.420 | 14.929  | 13.46 1.202 | 14.584 | 18.751  | 15.48 1.286 | 13.917 | 17,661 | 0.0031 | 0.0424 | 0.0007  | 0.0235 |
| 7110  | SEAF B22  | 220.00 1.13                                                          | 6 0.025 | 2927.8 | 7.683  | 8.997   | 11.57 1.171 | 7.070  | 9.057   | 15.09 1.281 | 7.416  | 6.548  | 0.0034 | 0.0388 | 0.0017  | 0.0489 |
| 7111  | SEAF B23  | 220,00 1.13                                                          | 6 0.025 | 2931.5 | 7.693  | 9.009   | 11.58 1.171 | 7.220  | 9.244   | 15.02 1.280 | 7.480  | 6.802  | 0.0033 | 0.0388 | 0.0016  | 0.0464 |
| 7356  | EN BRYAN  | 118.05 1.07                                                          | 6 0.025 | 645.7  | 3.158  | 3.338   | 4.67 1.057  | 2.072  | 2.148   | 3.95 1.037  | 2.841  | 1.541  | 0.0357 | 0.1666 | 0.1216  | 0.4288 |
| 7383  | ST M CEM  | 118.05 1.07                                                          | 6 0.025 | 526.6  | 2.576  | 2.790   | 6.26 1.083  | 1.602  | 1.672   | 4.25 1.043  | 2.305  | 1.163  | 0.0326 | 0.2043 | 0.1668  | 0.5768 |
| 7384  | ST MARL7  | 118.05 1.07                                                          | 6 0.025 | 540.2  | 2.642  | 2.903   | 7.21 1.099  | 1.639  | 1.714   | 4.37 1.046  | 2.364  | 1,188  | 0.0276 | 0.1992 | 0.1653  | 0.5650 |
| 7385  | ST MARD8  | 118.05 1.07                                                          | 6 0.025 | 583.0  | 2.851  | 3.119   | 6.90 1.094  | 1.528  | 1.617   | 4.92 1.058  | 2.524  | 1.043  | 0.0267 | 0.1846 | 0.1564  | 0.6644 |
| 7351  | LKHR WTP  | 118.05 1.07                                                          | 6 0.025 | 392.2  | 1.918  | 1.970   | 2.44 1.027  | 1.260  | 1.279   | 2.70 1.016  | 1.726  | 0.938  | 0.1126 | 0.2743 | 0.2383  | 0.7047 |
| 7349  | G BEND E  | 118.05 1.07                                                          | 6 0.025 | 406.3  | 1.987  | 2.042   | 2.49 1.027  | 1.308  | 1.329   | 2.74 1.016  | 1.789  | 0.975  | 0.1063 | 0.2648 | 0.2281  | 0.6769 |
| 7375  | MCGILLIV  | 118.05 1.07                                                          | 6 0.025 | 508.4  | 2.486  | 2.587   | 3.66 1.040  | 1.632  | 1.676   | 3.48 1.027  | 2,237  | 1.214  | 0.0579 | 0.2117 | 0.1626  | 0.5442 |
| 7332  | CENTRL7S  | 118.05 1.07                                                          | 6 0.025 | 658.8  | 3,222  | 3.386   | 4.30 1.051  | 2.231  | 2.297   | 3.61 1.029  | 2.918  | 1.707  | 0.0380 | 0.1633 | 0.1200  | 0.3809 |
| 5600  | RUSH D8S  | 118.05 1.07                                                          | 6 0.025 | 2833.2 | 13.857 | 15.188  | 7.03 1.096  | 11.247 | 12.212  | 6.17 1.086  | 12.899 | 9.464  | 0.0054 | 0.0380 | 0.0119  | 0.0644 |
| 5601  | RUSH D10  | 118.05 1.07                                                          | 6 0.025 | 2871.6 | 14.044 | 15.441  | 7.24 1.099  | 11.303 | 12.299  | 6.28 1.088  | 13.049 | 9.458  | 0.0052 | 0.0375 | 0.0119  | 0.0647 |
| 5404  | DETWEILE  | 118.05 1.07                                                          | 6 0.025 | 4978.4 | 24.348 | 30.703  | 17.68 1.261 | 27.199 | 36.357  | 19.73 1.337 | 26.113 | 30.806 | 0.0012 | 0.0216 | 0.0005  | 0.0148 |
| 5103  | DETWEILE  | 220.00 1.13                                                          | 6 0.025 | 8793.3 | 23.076 | 27.028  | 11.59 1.171 | 19.890 | 25.384  | 14.83 1.276 | 21,812 | 17.477 | 0.0011 | 0.0129 | 0.0008  | 0.0191 |
| 6557  | WINGHB22  | 220.00 1.13                                                          | 6 0.025 | 2738.9 | 7.188  | 8.369   | 11.18 1.164 | 5.237  | 5.647   | 5.84 1.078  | 6.557  | 4.119  | 0.0037 | 0.0415 | 0.0218  | 0.0878 |
| 6558  | WINGHB23  | 220.00 1.13                                                          | 6 0.025 | 2745.3 | 7.205  | 8.389   | 11.17 1.164 | 5.286  | 5.696   | 5.80 1.078  | 6.579  | 4.174  | 0.0037 | 0.0414 | 0.0218  | 0.0864 |
| 7192  | STRTFB22  | 220.00 1.13                                                          | 6 0.025 | 3166.2 | 8,309  | 9.424   | 9.35 1.134  | 6.157  | 6.736   | 6.55 1.094  | 7.600  | 4.890  | 0.0038 | 0.0359 | 0.0145  | 0.0735 |
| 7193  | STRTFB23  | 220.00 1.13                                                          | 6 0.025 | 3184.3 | 8.357  | 9.498   | 9.49 1.137  | 6.197  | 6.781   | 6.56 1.094  | 7.644  | 4.924  | 0.0038 | 0.0357 | 0.0145  | 0.0730 |
| 73101 | GOSHENTHV | 118.05 1.07                                                          | 6 0.025 | 892.5  | 4.365  | 5.005   | 10.11 1.147 | 4.946  | 6.027   | 12.21 1.219 | 4.736  | 5.705  | 0.0119 | 0.1206 | 0.0023  | 0.0781 |
| 7652  | GODERICH  | 27.600 1.05                                                          | 1 0.067 | 324.6  | 6.789  | 6.789   | 6.93 1.000  | 6.994  | 6.994   | 9.13 1.000  | 6.897  | 7.212  | 0.0467 | 0.3238 | 0.0098  | 0.2954 |
| 7630  | CONST B1  | 27.600 1.05                                                          | 1 0.067 | 137.3  | 2,871  | 2.871   | 14.55 1.000 | 3.108  | 3.151   | 15.87 1.014 | 3.009  | 3.387  | 0.0526 | 0.7657 | 0.0284  | 0.5909 |
| 7628  | CONST B2  | 27.600 1.05                                                          | 1 0.067 | 137.1  | 2.869  | 2.869   | 14.67 1.000 | 3,105  | 3.151   | 16.02 1.015 | 3.006  | 3.383  | 0.0522 | 0.7664 | 0.0281  | 0.5915 |
| 7722  | SEAFORTH  | 27.600 1.05                                                          | 1 0.067 | 586.3  | 12.264 | 12.264  | 18.93 1.000 | 10.087 | 10.729  | 22.72 1.064 | 11.452 | 8.566  | 0.0095 | 0.1793 | 0.0098  | 0.2954 |
| 7666  | EN BRYAN  | 4.1600 1.00                                                          | 0 0.067 | 83.7   | 11.621 | 11.621  | 13.49 1.000 | 12.597 | 12.597  | 0.02 1.000  | 12.188 | 13.751 | 0.0885 | 1.1943 | ******  | 0.9168 |
| 7732  | ST M CEM  | 4.1600 1.00                                                          | 0 0.067 | 180.5  | 25.046 | 25.046  | 10.70 1.000 | 29.540 | 29.540  | 0.03 1.000  | 28.186 | 36.000 | 0.0518 | 0.5541 | 53.0263 | 0.3012 |
| 7733  | ST MARYS  | 13.800 1.02                                                          | 9 0.067 | 279.3  | 11.686 | 11.686  | 15.57 1.000 | 5.621  | 6.222   | 28.62 1.107 | 10.288 | 3.700  | 0.0237 | 0.3684 | 0.0329  | 1.5608 |
| 7650  | LKHR WTP  | 4.1600 1.00                                                          | 0 0.067 | 93.9   | 13.032 | 13.032  | 6.21 1.000  | 0.000  | 0.000   | 1.00 1.000  | 11,286 | 0.000  | 0.1715 | 1.0649 | ******  | ****** |
| 7651  | G BD EB1  | 27.600 1.05                                                          | 1 0.067 | 109.2  | 2.284  | 2.284   | 5.88 1.000  | 2,631  | 2.631   | 6.96 1.000  | 2,513  | 3.102  | 0.1636 | 0.9627 | 0.0330  | 0.5820 |
| 7682  | G BD EB2  | 27.600 1.05                                                          | 1 0.067 | 109.2  | 2.284  | 2.284   | 5.88 1.000  | 2.631  | 2.631   | 6.96 1.000  | 2.513  | 3,102  | 0.1636 | 0.9627 | 0.0330  | 0.5820 |
| 7701  | MCGILLIV  | 4.1600 1.00                                                          | 0 0.067 | 113.4  | 15.732 | 15.732  | 8.19 1.000  | 0.000  | 0.000   | 1.00 1.000  | 13.624 | 0.000  | 0.1077 | 0.8822 | ******  | ****** |
| 7624  | CENTRALI  | 27.600 1.05                                                          | 1 0.067 | 266.2  | 5.568  | 5.568   | 7.51 1.000  | 6.079  | 6.079   | 9.43 1.000  | 5.870  | 6.692  | 0.0526 | 0.3948 | 0.0098  | 0.2954 |
| 6206  | RUSH      | 13.800 1.02                                                          | 9 0.067 | 421.9  | 17.652 | 17.652  | 19.39 1.000 | 19.055 | 19.964  | 20.53 1.048 | 18,462 | 20.702 | 0.0126 | 0.2439 | 0.0079  | 0.1900 |
| 6008  | DETWEIBY  | 27.600 1.05                                                          | 1 0.067 | 696.5  | 14.569 | 14.569  | 18.88 1.000 | 6.809  | 7.090   | 19.64 1.041 | 12,811 | 4.443  | 0.0080 | 0.1509 | 0.0333  | 0.6668 |
| 6795  | WINGHAM   | 44.000 1.04                                                          | 5 0.067 | 731.4  | 9.597  | 9.852   | 27.31 1.027 | 10.344 | 11.615  | 30.80 1.123 | 10.027 | 11.218 | 0.0052 | 0.1429 | 0.0024  | 0.1119 |
| 7737  | STRATFOR  | 27.600 1.05                                                          | 1 0.067 | 682.1  | 14.268 | 14.444  | 24.47 1.012 | 10.656 | 12,116  | 32.75 1.137 | 13.067 | 8.503  | 0.0063 | 0.1541 | 0.0063  | 0.3108 |
| 73102 | GOSHENTLY | 34.500 1.00                                                          | 0 0.067 | 626.1  | 10.477 | 10.477  | 12.89 1.000 | 0.002  | 0.002   | 1.00 1.000  | 9.074  | 0.001  | 0.0124 | 0.1597 | ******  | ****** |

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Table B4. Short circuit levels (3-phase fault) compared with breaker ratings.

|           |                       |      | Goshen      | WEC O/S       | Gosher      | WEC I/S      | Circuit Breaker Lowest |              |  |
|-----------|-----------------------|------|-------------|---------------|-------------|--------------|------------------------|--------------|--|
|           |                       |      |             | 3-Phase Fault | Ratings     |              |                        |              |  |
| BUS#      | NAME                  | kV   | Symmetrical | Asymmetrical  | Symmetrical | Asymmetrical | Symmetrical            | Asymmetrical |  |
| 7652      | Goderich TS BY        | 27.6 | 6.7         | 6.7           | 6.8         | 6.8          | 8.1                    | 8.4          |  |
| 7306      | Seaforth TS           | 115  | 11.6        | 13.9          | 13.7        | 17.0         | 30.9                   | 35.8         |  |
| 7383      | St. Mary's Cement CTS | 115  | 2.4         | 2.6           | 2.6         | 2.8          | 21.0                   | 28.7         |  |
| , 7733    | St. Mary's TS BY      | 13.8 | 11.6        | 11.6          | 11.7        | 11.7         | 15.9                   | 16.7         |  |
| 7651/7682 | Grand Bend East DS    | 27.6 | 2.2         | 2.2           | 2.3         | 2.3          | 12.0                   | 12.1         |  |
| 7624      | Centralia TS          | 27.6 | 5.4         | 5.4           | 5.6         | 5.6          | 8.1                    | 8.4          |  |
| 7722      | Seaforth TS BQ        | 27.6 | 12.1        | 12.1          | 13.9        | · 14.0       | 15.9                   | 16.7         |  |
| 5404      | Detweiler TS          | 115  | 24.3        | 30.6          | 24.7        | 31.2         | 34.7                   | 39.8         |  |
| 6008      | Detweiler TS BY       | 27.6 | 14.6        | 14.6          | 14.6        | 14.6         | 22.0                   | 22.3         |  |
| 6795      | Wingham TS BY         | 44   | 9.6         | 9.8           | 10.8        | 11.2         | 12.5                   | 13.3         |  |
| 7737      | Stratford TS BY       | 27.6 | 14.2        | 14.4          | 14.4        | 14.6         | 15.9                   | 16.7         |  |
| 6206      | Rush MTS              | 13.8 | 17.6        | 17.6          | 17.7        | 17.7         | 18.0                   | 18.2         |  |

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Goshen WEC O/S is the 2011 Base Case with no FIT generation Goshen WEC I/S includes all transmission connected FIT project that was approved by OPA including Goshen WEC.

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Table B5. Short circuit levels (line-to-ground fault).

|           |                       |      | Goshen              | WEC O/S      | Goshen WEC I/S |              |  |  |  |
|-----------|-----------------------|------|---------------------|--------------|----------------|--------------|--|--|--|
|           |                       |      | L-G Fault Type (kA) |              |                |              |  |  |  |
| BUS#      | NAME                  | kV   | Symmetrical         | Asymmetrical | Symmetrical    | Asymmetrical |  |  |  |
| . 7652    | Goderich TS BY        | 27.6 | 7.0                 | 7.0          | 7.0            | 7.0          |  |  |  |
| 7306      | Seaforth TS           | 115  | 13.6                | 17.6         | 16.3           | 21.4         |  |  |  |
| 7383      | St. Mary's Cement CTS | 115  | 1.4                 | 1.5          | 1.6            | 1.7          |  |  |  |
| 7733      | St. Mary's TS BY      | 13.8 | 5.6                 | 6.2          | 5.6            | 6.2          |  |  |  |
| 7651/7682 | Grand Bend East DS    | 27.6 | 2.6                 | 2.6          | 2.6            | 2.6          |  |  |  |
| 7624      | Centralia TS          | 27.6 | 5.9                 | 5.9          | 6.1            | 6.1          |  |  |  |
| 7722      | Seaforth TS BQ        | 27.6 | 10.0                | 10.6         | 10.8           | 11.7         |  |  |  |
| 5404      | Detweiler TS          | 115  | 27.1                | 36.2         | 27.5           | 36.9         |  |  |  |
| 6008      | Detweiler TS BY       | 27.6 | 6.8                 | 7.1          | 6.8            | 7.1          |  |  |  |
| 6795      | Wingham TS BY         | 44   | 10.3                | 11.6         | 11.2           | 12.8         |  |  |  |
| · 7737    | Stratford TS BY       | 27.6 | 10.6                | 12.1         | 10.7           | 12.2         |  |  |  |
| 6206      | Rush MTS              | 13.8 | 19.1                | 20.0         | 19.1           | 20.0         |  |  |  |

Note:

Goshen WEC O/S is the 2011 Base Case with no FIT generation Goshen WEC I/S includes all transmission connected FIT project that was approved by OPA including Goshen WEC.

Filed: 2013-04-03 Goshen Wind, Inc. Exhibit J Tab 1 Schedule 1 Page 1 of 1

# CONNECTION PROJECT IMPACTS ON TRANSMISSION SYSTEM

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55. No network reinforcements are required for the Facility. The Applicant does not attribute any market efficiency benefits to the Facility and therefore has not included any quantification of these benefits.