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July 3, 2013

#### **VIA RESS and Courier**

Ontario Energy Board 2300 Yonge Street P.O. Box 2319 Suite 2700 Toronto, ON M4P 1E4

Attention: Kirsten Walli Board Secretary

Dear Ms. Walli:

Re: Goshen Wind Inc. Leave to Construct Application

**Board File No. EB-2013-0096** 

Goshen Wind Inc. - Responses to Board Staff Interrogatories

We are counsel to Goshen Wind Inc. (the "Applicant") in the above-noted proceeding. Please find enclosed the Applicant's Interrogatory Responses to Board Staff.

Sincerely,

Signed in the original

George Vegh Enclosure

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#### ONTARIO ENERGY BOARD

**IN THE MATTER OF** the *Ontario Energy Board Act*, 1998, S.O. 1998, c.15, Schedule B;

**AND IN THE MATTER OF** an application by Goshen Wind Inc. for an order or orders pursuant to section 92 of the *Ontario Energy Board Act*, 1998 granting leave to construct transmission facilities in the Municipalities of Bluewater and South Huron.

# GOSHEN WIND (the "APPLICANT") RESPONSES TO BOARD STAFF INTERROGATORIES

# **Interrogatory 1:**

Reference: Exh. B/Tab 1/Sch. 1/p. 1/par. 1

Preamble:

At the reference it is stated in part that:

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.

# Questions/Requests:

- (i) What experience does the Applicant have in the construction and operation of a similar type of facility as that proposed in this application?
- (ii) Please indicate what corporate organization capabilities exist to complete the applied for project.

(iii)Please indicate whether the Applicant intends to make use of contractors and provide a summary of their experience in regards to the construction of such projects.

#### **ANSWER 1:**

i) The Applicant is a wholly-owned subsidiary of NextEra Energy Canada, ULC ("NEER Canada") which in turn is a wholly-owned subsidiary of NextEra Energy Resources LLC, ("NEER"). NEER is a wholly-owned subsidiary of NextEra Energy, Inc. ("NextEra"). The applicant benefits from the vast experience of all of its affiliates and parent companies.

NextEra is a leading clean energy company with 2012 revenues of approximately \$14.3 billion, with a generating capacity of more than 42,000 megawatts and nearly 15,000 employees in the United States and Canada. The company holds an A-rated investment grade credit rating and has substantial experience in financing large electric infrastructure projects. NextEra operates and maintains an extensive network of distribution and transmission lines as well as substations.

NEER is the largest owner and operator of renewable energy generation facilities from the wind and sun in North America. NEER has standardized processes and procedures that ensure consistent, repeatable results from site to site. NEER operates a portfolio of facilities totalling 18,122 net megawatts from power plants in 24 states and 4 Provinces.

NEER Canada constructed, owns and operates two existing facilities in Canada:

- Ghost Pine Wind Energy Centre (82 MW), Kneehill County, AB
- Conestogo Wind Energy Centre (23 MW), Township of Mapleton, ON

In addition, NEER Canada owns and operates five existing facilities in Canada:

- Mount Miller Wind Energy Centre (54 MW), Murdochville, QC
- Mount Copper Wind Energy Centre (54 MW), Murchochville, QC
- Pubnico Point Wind Energy Centre (31 MW), Yarmouth, NS
- Moore Solar Energy Centre (20 MW), Lambton County, ON
- Sombra Solar Energy Centre (20 MW), Lambton County, ON
- ii) The corporate organizational capabilities that exist to complete the applied for project are considerable.

NextEra Energy, Inc. owns and maintains more than 7,300 miles of transmission lines between 69 kilovolts and 500 kilovolts and nearly 800 substations in North America. NextEra has successfully completed transmission projects in different regulatory and geographic environments.

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The relative size and technical and financial capabilities of NextEra Energy companies can provide significant benefits. One important advantage is our full access to the capabilities of NEER's affiliate, Florida Power & Light Company, which is one of the largest U.S. utility franchises, with over 6,500 miles of transmission and over 4,200 miles of distribution network.

NextEra's strengths in executing large and complex transmission projects include:

**Technical Expertise** – NextEra has the technical experience in development, engineering, procurement, construction, operations and maintenance of transmission systems. NextEra has successfully applied different technologies and a variety of designs in transmission line construction, in a safe and timely manner.

**Operational Excellence** –NextEra operates and maintains complex transmission and distribution systems to ensure safe and reliable operation as well as uninterrupted and efficient electric service. Extensive diagnostics are used to assess facility conditions, forming the basis to develop plans for asset maintenance and replacement. NextEra's state-of-the-art control centers allow the maintenance of our system reliability in a cost effective manner.

**Financial Capabilities** – NextEra is a leading clean energy company with revenues of approximately \$14.3 billion in 2012, an A-rated investment grade credit rating, and experience in financing large electric infrastructure construction projects. These strong financial credentials also support NextEra Energy Transmission as a reliable partner with the ability to finance large projects.

iii)Yes, the Applicant intends to use contractors to construct the Facility. The electrical and civil engineering firm TetraTech has been retained to perform the engineering and design scope of work related to the Facility. An overview of their expertise is attached as Schedule "A".

The Request for Proposals for the Engineering and Procurement Contractor ("EPC") for construction of the Facility was issued on June 7, 2013 and is currently expected to be awarded in the 3<sup>rd</sup> quarter of 2013.

#### **Interrogatory 2:**

Reference: Exh. E/Tab 1/Sch. 1/pp. 1-2; Exh. C/Tab 1/Sch. 1/p. 1

On page 1 of the first reference at paragraph 27, it is stated that:

27. The 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.

On page 2 of the first reference, a table lists five "Documents and Permits Required", with no dates listed as to when a final determination is expected in regard to a requirement or issuance of a Permit, except for the REA proceeding as it was indicated in the second reference that receipt of the REA is expected by September 2013.

## Requests:

- (i) Please provide the status of the other four "Documents and Permits Required", including the date of expected completion or determination of "no requirement" as the case may be.
- (ii) Have there been any objections to granting of the REA to the Applicant? If so by which parties?
- (iii) Upon completion of the REA proceeding, please file a copy of the REA approval with the Board.

#### **ANSWER 2:**

- i) The status of the documents and permits required (including the REA, as the date of expected completion has been revised) is as follows:
  - a. **Renewable Energy Approval:** The REA was submitted to the Ministry of Environment ("MOE") on February 1, 2013, deemed complete by the MOE on June 27<sup>th</sup>, 2013 and posted to the Environmental Registry on the same date. In light of the six-month service standard for technical review, the date of expected completion for the REA is December 2013.
  - b. **County/Municipal Road Use Agreement:** The Applicant is still in discussion with the counterparties to these agreements (the Municipality of Bluewater, Municipality of South Huron and the County of Huron).
  - c. **Species at Risk:** Not applicable / no requirement.
  - d. **Ausable Bayfield Conservation Authority:** The Applicant submitted permit application documents on June 27, 2013 to the Ausable Bayfield Conservation Authority. The date of expected completion is Q3 2013.
  - e. **Upper Thames River Conservation Authority:** A permit for compensation for tree removal will be acquired. The Applicant is currently negotiating the terms of the permit. The date of expected completion is Q3 2013.
- ii) The Applicant is not aware of any objections to the granting of the REA to the Applicant to-date. However, the six-month technical review period for the Ministry of Environment and public comment period commenced on June 27, 2013.
- iii) The Applicant will file a copy of the REA upon completion.

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## **Interrogatory 3:**

Reference: Exh. F/Tab 1/Sch. 1/pp. 1 – 13; Exh. F/Tab 1/Sch. 2 & Sch. 3 & Sch. 4 & Sch. 5

Preamble:

At page 1, paragraph 28 of the first reference, it is stated in part that:

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").

At page 1, paragraph 30 of the first reference, it is stated in part that:

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.

At the second reference, four forms of Transmission Agreements are provided for use with applicable to landowners.

# Question/Request:

(i) Please clarify whether the Applicant secured all the applicable Transmission Agreements shown at the second reference that are needed from landowners across the Corridor including Adjacent Landowners? If not please provide an update to Tables A, B, C, and D listing in each of these Tables, only those having pending Agreements, and when to expect completion.

#### **ANSWER 3:**

i) The Applicant has secured the land agreements required for the transmission line. The only agreement outstanding is in relation to a railway crossing, as explained below. The Applicant has entered into an option to acquire a lease and rights-of-way ("License and Option Agreement (Interconnection)", see Exhibit F, Tab 1, Schedule 3 of the Application) with a landowner for the land required at the point of interconnection for the Breaker, and has entered into a license and option agreement ("License and Option Agreement (Substation)", see Exhibit F, Tab 1, Schedule 4) with a landowner for the land required for the Substation.

In respect of Tables A, B, C and D included at pages 2-10 of Exhibit F, Tab 1, Schedule 1, Table A describes the privately-owned land parcels with respect to which options for easement agreements have been signed, while Table B describes the Municipal right-of-

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way parcels with Transmission Line infrastructure, and Table D lists properties not hosting infrastructure which are adjacent to Municipal right-of-way parcels with Transmission Line infrastructure.

Therefore, only Table C lists privately-owned land parcels with respect to which easement agreement negotiations between the Applicant and landowners are ongoing. These negotiations remain in progress. However, the Applicant notes that with one exception, in the case of each parcel listed in Table C, negotiations are in respect of easements for overhang which are not required for the transmission line to be built. The exception to this is in the fourth row of Table C in respect of PIN 412590024, with respect to which it is indicated that the nature of the impact is "infrastructure located on property." The agreement being negotiated in respect of PIN 412590024 is in relation to a railway crossing, and is required for the transmission line to be built. It is expected that this agreement will be finalized by the end of 2013.

## **Interrogatory 4:**

#### Preamble:

The pre-filed evidence did not address consequences and cost responsibility in the event of the proposed transmission assets being stranded due to uncontrollable events.

# Questions/Clarifications:

- (i) In the absence of any evidence addressing consequences and cost responsibility in the event of the proposed transmission assets being stranded due to uncontrollable events, please acknowledge the Applicant's responsibility for removing the transmission and related facilities if construction of these transmission facilities does not proceed or is interrupted due to unforeseen events such as the inability to acquire or secure the various permits or due to a force majeure event?
- (ii) Did the Applicant set aside funds to address the events outlined in (i) above leading to stranded assets as well as for decommissioning, or alternatively guaranteeing performance by any other means? Please provide details.

#### **ANSWER 4:**

i) As described in the Decommissioning Plan Report within the Renewable Energy
Approval application documents, the Applicant is responsible for the removal of the
transmission and related facilities if construction does not proceed.
 Please see sections 2.1, 2.2.7, and 2.3 of the Applicant's Decommissioning Plan. See
paragraph 47 (footnote 5) of the Applicant's pre-filed evidence (Exhibit G, Tab 1,
Schedule 1).

ii) Decommissioning activities are regulated through the Renewable Energy Approval permit that will ultimately be granted by the Ministry of Environment. Those regulations do not require the setting aside of funds for decommissioning.

# **Interrogatory 5:**

Note: This interrogatory requires that the Applicant seek assistance from Hydro One Networks Inc. ("HONI") to respond to the Requests below, making sure that the deadline for Interrogatory Responses is met.

Reference: Exh. B/Tab 2/Sch. 1/p1/par. 11; Exh. H/Tab 1/Sch. 2/p. 2/Transmitter Requirement – (2)/SIA Report, December 23, 2011/

At the first reference it is stated in part that:

[...] The Facility will connect the GWEC to HONI's 115 kV L7S Circuit (the "L7S Circuit"), all within the County.

At the second reference, the SIA Report states that:

(2) The transmitter shall modify the protections on circuit L7S and the 115 kV Seaforth TS to incorporate the project.

#### Request:

- (i) In regard to the above reference, please provide a description and cost of the reinforcements to be carried out by HONI on its L7S transmission line and the protection modification on circuit L7S and at the 115 kV Seaforth TS.
- (ii) Please provide the status of the Connection and Cost Recovery Agreement (the "CCRA") between HONI and the Applicant.
- (iii)Upon finalization of the CCRA, please file a copy with the Board.

# **ANSWER 5:**

- i) Please see the CCRA, which the Applicant will submit to the Board as soon as possible. The Applicant has been in communication with HONI regarding the filing of the CCRA in this proceeding.
- ii) The CCRA between HONI and the Applicant was executed on June 27, 2013.
- iii) As indicated, the Applicant will submit a copy of the CCRA as soon as possible.

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Goshen Wind Responses to Board Staff

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Schedule "A"

(Please see attached)



# 1.0 COMMERCIAL INFORMATION

# 1.1 Tetra Tech's History and Organization (Organization and Sister companies)

Tetra Tech was established in 1966 by a select group of technical experts providing engineering services related to waterways, harbors and coastal areas. In the past 45 years, Tetra Tech has hired prominent engineers and scientists while completing projects of global significance ranging from recent efforts to support the expansion of the Panama Canal; design and construction of improved New Orleans flood protection structures; and engineering design support in regards to Canadian participation in the U.S. Space Shuttle program. In supporting client needs worldwide, Tetra Tech has developed an enviable performance record of successfully completing projects in remote, austere and even hostile work locations.

Today, as a publicly traded company (U.S. NASDAQ Trading Symbol: TTEK), Tetra Tech provides comprehensive and integrated licensing, environmental, engineering design, facilities construction and construction support for a full suite of services related to power generation and distribution, hydropower and dam projects worldwide. Total company revenues at the completion of the last fiscal year were in excess of \$2.6 B.

Operationally, Tetra Tech is divided into four business groups:

- Engineering & Consulting Services (ECS);
- Remediation & Construction Management (RCM);
- Engineering & Architecture Services (EAS);
- Technical Support Services (TSS).

Tetra Tech, under its ECS business group, has significantly expanded its geographic presence in recent years through strategic acquisitions and internal growth throughout Canada and the United States. Well-established Canadian subsidiary groups include: Tetra Tech WEI Inc. (formerly Wardrop), BPR, EBA Engineering Consultants, Ltd. (EBA), and Fransen Engineering, Ltd. (Fransen). These firms will be branded as Tetra Tech within the year.

#### 1.1.1 BPR-ENERGY INC.

Established 50 years ago, BPR is one of the largest engineering firms in Canada, providing a broad range of engineering and project management services to industrial and commercial entities, major institutions, and municipalities across the country. Major utility customers include Hydro-Québec.

### 1.1.2 TETRA TECH WEI INC. (PREVIOUSLY WARDROP ENGINEERING INC.)

Established in 1955, Tetra Tech WEI is a Canadian-based company providing frontend studies, engineering, and environmental services for the resource management, energy, and infrastructure markets. Tetra Tech WEI offers feasibility studies, conceptual and detailed design, procurement and construction management, among other technical consulting and engineering services.

#### 1.1.3 EBA

EBA provides a broad range of engineering services to diverse clients across western and northern Canada. Services include engineering design, site investigation and studies, planning, and project management for energy, mining, transportation and local governmental clients.

#### 1.1.4 FRANSEN

Fransen provides comprehensive multi-disciplinary engineering services to assist heavy industrial, utility and energy production clients in upgrading and sustaining their facilities. Fransen is headquartered in Richmond, BC.

#### 1.1.5 TETRA TECH

Tetra Tech serves as the lead entity. As wholly owned subsidiaries, Tetra Tech's WEI, BPR, EBA, and Fransen function seamlessly as fully integrated entities to support our Canadian clients—to NextEra, Tetra Tech is one company with one operating mandate. For contractual purposes, BPR will serve as the legal entity leading this opportunity and will be supported by WEI during execution of the work.

# 1.2 Tetra Tech In Numbers

With 13,000 employees and 330 offices worldwide, Tetra Tech's capabilities span the entire project life cycle. (Exhibit 1.1a, below, illustrates Tetra Tech's global presence).

- 3,800 employees in Canada; 688 in BC and 426 in Alberta
- 80 offices in Canada; including 10 in BC and 4 in Alberta
- \$2.6 B in revenue for 2011
- 60-year Canadian operating history

Tetra Tech is recognized as the first truly full-service wind energy environmental, engineering and construction firm in North America. Our success is a result of having worked on more than 350 wind projects, totalling more than 20,000 MW. Of that, over 15,000 MW of wind power generation is in operation or scheduled for construction.



Exhibit 1.1a. Tetra Tech's global offices and staff serve and provide innovative solutions to our clients.



# 1.3 LOCATION OF OFFICES IN CANADA AND THEIR ANNUAL CAPACITIES

Tetra Tech, under its ECS business group, has significantly expanded its geographic presence in recent years through strategic acquisitions and internal growth throughout Canada and the United States becoming one of the largest engineering firms in Canada.

In Canada, BPR and WEI totaled nearly \$ 70 Million in revenue in 2011 for Transmission and Distribution Electrical Engineering related services. This work is performed principally out of our Mississauga, Pickering and Montréal offices.

In Ontario specifically, Tetra Tech's expertise extends to all phases of a project life cycle, from feasibility studies through to design and construction, with strong experience in substation, transformers and electrical distribution. Our electrical utility experience includes major local clients (e.g. Hydro Ottawa, Hydro One, SunEdison, PowerStream, Brookfield Power, Guelph Hydro, Toronto Hydro,).

Our office in Mississauga comprises over 100 Ontario based staff dedicated to transmission, distribution and renewables design engineering work. This team has the full design engineering and project management expertise required by NextEra and meets Ontario content requirements per the OPA FIT contract.

With more than 3,800 employees across the country, Tetra Tech is a diverse and full-service engineering firm. Exhibit 1. 1b illustrates the wide-ranging locations of Tetra Tech offices in Canada.

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Exhibit 1.1b. Tetra Tech's 80 offices and 3,800 employees throughout Canada

For the transmission and distribution (T&D) industry and to meet the requirements of NextEra, Tetra Tech offers:

- A strong commitment to the T&D business. Tetra Tech has one of Canada's largest and most experienced team of T&D experts, engineers, and designers with knowledge of the full project life-cycle planning, design, construction and commissioning. With nearly 350 T&D equipment experts and specialists, Tetra Tech has executed projects involving 500kV substations and transmission lines, HVDC systems, overhead and underground distribution systems. Tetra Tech also performs associated services in line routing, environmental permitting, management consulting, asset management and LIDAR (more than 200 staff supporting environmental and geotechnical services in BC). Tetra Tech's total portfolio of services in the T&D market represents more than \$110M in revenue annually;
- A senior management team with experience in multi-year and multi-project agreements in the electric utility market. Tetra Tech's long-term clients include

Hydro One, Manitoba Hydro, Hydro- Québec, Ontario Power Generation and SaskPower. Outside of Canada, Tetra Tech's T&D team is working with large utilities such as PacifiCorp, Pacific Gas & Electric, Iberdrola and others. Tetra Tech has developed a client-centric delivery model to make the best use of our complementary resources;

 A local presence in Ontario With over 250 staff committed to Energy projects in Ontario, Tetra Tech has a good understanding of NextEra's requirements and a strong commitment to the local economy. Exhibit 1.1c, illustrates some of Tetra Tech's long-term relationships and Master Services Agreements with some of our largest customers in Canada.

Exhibit 1.1c. Tetra Tech's long-term client relationships.





# 1.4 PLANS FOR FUTURE OFFICES ADDITIONS/EXPANSIONS

We currently do not have plans for future office additions or expansions. Our current locations have been established with our business growth plan in mind.

# 1.5 DESCRIPTION OF MAJOR PROJECTS IN CONSTRUCTION AND OPERATION

CLIENT	WINDFARM	MANDATE	POWER
IPR GDF SUEZ / BOREA CONSTRUCTION	Plateau I,II (Ontario)	Plateau I,II windfarm  Detailed engineering of the collection system and the GE 1.5xle wind turbine foundations, including construction inspections. In operation since 2012.	18MW
IPR GDF SUEZ / BOREA CONSTRUCTION	Plateau III (Ontario)	Plateau III windfarm  Detailed engineering of the collection system and the GE 1.5xle wind turbine foundations, including construction inspections. In operation since 2012.	9 MW
EDF-EN / BOREA CONSTRUCTION	LAC ALFRED & La Mitis	Lac Alfred windfarm (95% completed)  Detailed engineering of the complete windfarm, which included the 315kV/34.5kV substation, the collection system and the wind turbine foundations. The wind turbines are Repower MM82 and MM92, 2.05 MW. Under construction.	324 MW (300+24 MW)
EDF-EN / BOREA CONSTRUCTION	Saint Robert & Le Granit	Saint Robert windfarm (95% completed)  Detailed engineering of the 35 kV collection system and the wind turbine foundations. The wind turbines are Repower MM82 and MM92, 2.05 MW. Under construction.	104 MW (80+24 MW)
BOREA CONSTRUCTION/ NORTHLAND POWER	Mont Louis	Mont-Louis 100.5 MW windfarm  Detailed design of the 230kV/34.5 kV substation and collection system, including all required HQ studies. In operation since 2010.	100.5 MW
ELECTROSAGUE NAY/NOR THLAND POWER	St Ulric Jardin d'Éole	Preliminary electrical engineering Preliminary engineering and cable optimization of the 34.5kV collector network. St-Ulric windfarm consists of eighty-five (85) wind turbines installed in the province of Québec (Canada). In operation since 2009.	127.5MW

CLIENT	WINDFARM	MANDATE	POWER
ELECTROSAGUE NAY/NOR THLAND POWER	St-Ulric Jardin d'Éole	Detailed electrical engineering Detailed engineering of the 34.5kV collector network including network configuration and layout, cable dimensioning optimization, losses optimization, load flow, short circuit calculations, protective coordination study, insulation coordination study, and drawings. St- Ulric windfarm consists of eighty-five (85) wind turbines installed in the province of Québec (Canada). In operation since 2009.	127.5MW
BOREA CONSTRUCTION/ TRANSELEC COMMON INC. / CARTIER ENERGIE ÉOLIENNE	Carleton	Carleton windfarm engineering  Detailed engineering, of the substation including testing and commissioning, site survey, including all electrical studies, wind turbine foundations, and road work engineering The Carleton windfarm consists of seventy three (73) 1.5MW wind turbines installed in the Gaspésie region, in the province of Québec (Canada). In operation since 2008.	109,5MW

To illustrate our Transmission Line experience, we have included a project profile in Appendix  ${\sf F}.$ 

# 1.6 LIST OF MAJOR SUBCONTRACTORS

We do not anticipate the use of subcontractors for the work quoted in this proposal.