# GOSHEN WIND ENERGY CENTRE Noise Assessment Report Summary

#### **SEPTEMBER 2012**

Goshen Wind, Inc., a wholly owned subsidiary of NextEra Energy Canada, ULC (NextEra) is proposing to construct a wind energy Project in Bluewater and South Huron, Huron County, Ontario. 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. The wind turbine technology proposed for the Project is the GE 1.6-100 Wind Turbine and one GE 1.56-100 Wind Turbine. With a total nameplate capacity of 102 MW, the Project is categorized as a Class 4 facility. Although NextEra is seeking a Renewable Energy Approval (REA) for up to 72 wind turbines, only 63 will be constructed for the Project.

The purpose of the Noise Assessment Report is to ensure that sound produced from the operating wind turbines and the transformer substations remain within Provincial guidelines for Points of Reception (Points of Reception are defined on page 2).

The Noise Assessment Report was prepared in accordance with the requirements outlined in Ontario Regulation 359/09, the regulation governing renewable energy projects in Ontario in addition to the Ministry of the Environment's "Noise Guidelines for Wind Farms".







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Corresponding section references are provided below to assist with reviewing the associated reports.

## **STUDY PROCESS**

According to Ontario Regulation 359/09, the regulation governing renewable energy approvals in the Province, turbines must be sited 550 metres (m) from non-participating Points of Reception. In addition, sound levels at non-participating points of reception cannot exceed 40 decibels (dBA) once the turbines and transformer substations are in operation. The Ministry of the Environment (MOE) also requires that the sound effects from existing wind turbines are included in the analysis. There is one wind farm within 5 kilometres of the Bluewater Wind Energy Centre. It is called The Zurich Wind Farm and consists of one wind turbine.

## **POINTS OF RECEPTION - SECTION 5**

A Point of Reception, or noise receptor, is a location on a property where someone may be impacted by sound. Points of Reception include buildings used for overnight stay, such as houses or apartments, in addition to schools, day care centres, churches and, within 30 metres of a dwelling or camp area. Note that the noise analysis also considers potential Points of Reception on vacant lands where there are currently no buildings or structures. These are referred to as Vacant Lot Points of Reception.

The following table describes the number and type of Points of Reception that were included in the noise analysis and whether MOE limits apply.

Number of Points of Reception	Description	Remarks
419	Non - participating	MOE Limits Apply
52	Participating	MOE Limits Do Not Apply
382	Vacant Lot Non - participating	MOE Limits Apply
57	Vacant Lot Participating	MOE Limits Do Not Apply



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Any Point of Reception classified as non-participating is subject to noise level limits outlined in the MOE guidelines. Participating Points of Reception are not subject to noise level limits because the parcels of land host infrastructure associated with the Project.

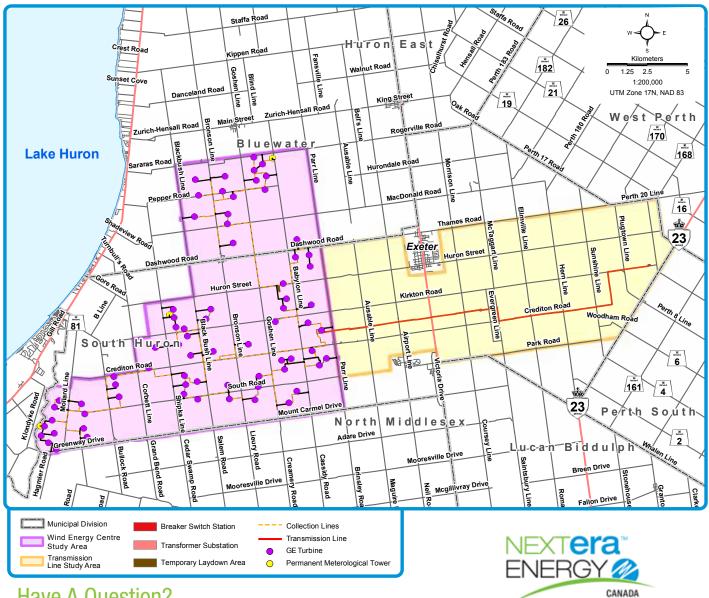
## **RESULTS - SECTION 7**

After modelling predicted noise levels from the proposed turbines, transformer substation and the existing Zurich Wind Farm, it was concluded that:

- All Non-Participating Points of Reception comply with MOE guidelines for wind turbines, meaning that they are predicted to be below the 40 dBA noise threshold and are greater than 550 m from the nearest wind turbine.
- All Non-Participating Vacant Lot Points of Reception comply with MOE guidelines for wind turbines, meaning that they are predicted to be below the 40 dBA noise threshold and are greater than 550 m from the nearest wind turbine.
- All Points of Reception comply with MOE guidelines for transformer substations.



## OSHEN WIND FNFRGY (CFN1 **Noise Assessment Report Summary**



### Have A Question?

We hope you find this Plain Language Summary helpful. In case you would like additional information or have any questions, please contact us directly:

#### **Project Proponent**

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