

## **APPENDIX F      NATURAL HERITAGE ADDENDUM**

***ADELAIDE WIND ENERGY CENTRE***  
**Natural Heritage Assessment**  
**Addendum Report**

**Prepared for:**  
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**ADELAIDE WIND ENERGY CENTRE**  
**Natural Heritage Assessment Addendum Report**

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## 1.0 Project Description

Natural Resource Solutions Inc. (NRSI) was retained in April 2011 by GL Garrad Hassan, on behalf of Kerwood Wind, Inc, a wholly-owned subsidiary of NextEra Energy Canada ULC to conduct a natural environment resource assessment in accordance with the Renewable Energy Approval (REA) Regulation. This assessment includes a records review, site investigation, evaluation of significance, and impact assessment of any potentially significant natural features at a proposed 60MW wind energy facility in Middlesex County and Township of Adelaide Metcalfe, Ontario. The analysis of the natural heritage features and biological factors affecting the proposed site is one issue being considered. Other factors, such as land ownership, social impacts, and cultural impacts are also being assessed by other team members, and will be addressed under separate covers as outlined by the regulation.

The general project area is roughly bordered by Centre Road, Townsend Line, Sexton road, and Napperton Drive. In addition, a transmission line is proposed to run north along Kerwood Road between Cuddy Drive and Nairn Road. This transmission line is then proposed to continue eastward across Nairn Road to an existing 500kV line and substation located west of Petty Street. The Adelaide Wind Energy Centre is proposed to consist of up to thirty-eight GE 1.6-100 (1.62MW) turbines for a total installed capacity of up to 61.56MW. The proposed GE 1.6-100 turbine is a 3-bladed, upwind, horizontal-axis turbine. The total rotor diameter of the turbine is 100m, resulting in a swept area of 7,854m<sup>2</sup>, and is designed to operate at between 9.75 and 16.18 revolutions per minute (rpm). The turbine rotor and nacelle are mounted on top of an 80m tubular tower which is manufactured in sections from steel plate. Each turbine is mounted on a steel reinforced concrete foundation and equipped with a transformer, located outside the base of the tower.

As identified the REA Regulation, the proposed layout of these features is collectively referred to as the 'project location'. For the purposes of this report, NRSI will refer to the areas within 120m of the project location as the 'project area'.

The records review, site investigation, evaluation of significance, and environmental impact study (EIS) for the Adelaide Wind Energy Centre were completed by NRSI over

the course of 2011/2012 as part of the Natural Heritage Assessment (NHA). The Adelaide Wind Energy Centre NHA (NRSI 2012) confirmation was granted on April 12, 2012 by the Ministry of Natural Resources' Renewable Energy Operations Team. As part of this confirmation, several pre-construction commitments were identified along with the commitment for the proponent to inform the MNR of any changes made to the project that would alter the NHA. This letter of confirmation is provided in Appendix I.

This document identifies and discusses minor layout changes that have been made to the Adelaide Wind Energy Centre project location since receiving the NHA confirmation from the MNR, but before the ultimate REA submission to the MOE. The update project layout addressed in this report is provided in Figures 1-2, with detailed comparative layouts provided in later sections.