# **RENEWABLE ENERGY APPROVAL**

# PROJECT DESIGN CHANGE SUMMARY REPORT

# **ADELAIDE WIND ENERGY CENTRE**

AUGUST 2012











# **GL** Garrad Hassan



# RENEWABLE ENERGY APPROVAL APPLICATION – PROJECT DESIGN CHANGE SUMMARY REPORT

# ADELAIDE WIND ENERGY CENTRE, ONTARIO

Client	NextEra Energy Canada, ULC
Contact	Ben Greenhouse
Document No.	1009-CAMO-R-08
Issue	C
Status	Final
Classification	Client's Discretion
Date	17 August 2012

Author

N. O'Blenes

Checked by

P. Henn

Approved by

P. Henn

GL Garrad Hassan Canada, Inc.

## IMPORTANT NOTICE AND DISCLAIMER

1. Acceptance of this document by the Client is on the basis that GL Garrad Hassan Canada, Inc. (hereafter "GL GH"), a GL Group member operating under the GL Garrad Hassan brand, is not in any way to be held responsible for the application or use made of the findings and the results of the analysis herein and that such responsibility remains with the Client.

This Report shall be for the sole use of the Client for whom the Report is prepared. The document is subject to the terms of the Agreement between the Client and GL GH and should not be relied upon by third parties for any use whatsoever without the express written consent of GL GH. The Report may only be reproduced and circulated in accordance with the Document Classification and associated conditions stipulated in the Agreement, and may not be disclosed in any offering memorandum without the express written consent of GL GH.

GL GH does not provide legal, regulatory, insurance, tax and/or accounting advice. The Client must make its own arrangements for consulting in these areas.

This document has been produced from information as of the date hereof and, where applicable, from information relating to dates and periods referred to in this document. The Report is subject to change without notice and for any reason including, but not limited to, changes in information, conclusion and directions from the Client.

2. This Report has been produced from information relating to dates and periods referred to herein. Any information contained in this Report is subject to change.

# KEY TO DOCUMENT CLASSIFICATION

Strictly Confidential	For disclosure only to named individuals within the Client's organization
Private and Confidential	For disclosure only to individuals directly concerned with the subject matter of the Report within the Client's organization
Commercial in Confidence	Not to be disclosed outside the Client's organization
GL GH only	Not to be disclosed to non-GL GH staff
Client's Discretion	Distribution for information only at the discretion of the Client (subject to the above Important Notice and Disclaimer)
Published	Available for information only to the general public (subject to the above Important Notice and Disclaimer)

© 2012 GL Garrad Hassan Canada, Inc.

# **REVISION HISTORY**

Issue	Issue Date	Summary
А	6 July 2012	Initial issue for review
В	8 August 2012	Updated to included addition land to Project substation, information on standardization of turbine disturbance areas and noise impact assessment
C	17 August 2012	Updated to Include Natural Heritage, archaeology and Built Heritage Addendums

# TABLE OF CONTENTS

1	PRE	EAMBLE	1
2	DES	SCRIPTION OF PROJECT	2
	2.1	Project Name and Project Proponent	2
	2.2	General Project Description	2
	2.3	Description of the Energy Source Namenlate Canacity and Class of Facility	5
	2.5 Description of the Energy Source, Nameplate Capacity, and Class of Pacifity		5
	2.4	2.4.1 Project Proponent	5
		2.4.2 Project Consultant	5
3	CHA	ANGES TO PROJECT DESIGN	7
	3.1	Design Change 1 – Permanent Meteorological Tower Location	7
		3.1.1 Description of Change	7
		3.1.2 Rationale for Change	7
		3.1.3 Archaeological Assessment	7
		3.1.4 Natural Heritage	8
	3.2	Design Change 2 – Removal of Access Road to Turbine 30	8
		3.2.1 Description of Change	8
		3.2.2 Rationale for Change	9
		3.2.5 Archaeological Assessment 3.2.4 Natural Heritage	9
	3.3	Design Change 3 – Reconfigured Access Roads to Turbines 13 and 14	9
		3.3.1 Description of Change	9
		3.3.2 Rationale for Change	10
		3.3.3 Archaeological Assessment	10
		3.3.4 Natural Heritage	10
	3.4	Design Change 4 – Reconfigured Collector Cable and Access Road to Turbine	33 11
		3.4.1 Description of Change	11
		3.4.2 Rationale for Change	11
		3.4.3 Archaeological Assessment	11
	35	5.4.4 Natural Heritage Design Change 5 Turbine 35 Move	12
	5.5	2.5.1 Description of Change	12
		3.5.1 Description of Change 3.5.2 Archaeological Assessment	12
		3.5.3 Natural Heritage	13
	3.6	Design Change 6 – Reconfigured Collector Cable between Turbines 36 and 37	13
		3.6.1 Description of Change	13
		3.6.2 Rationale for Change	14
		3.6.3 Archaeological Assessment	14
		3.6.4 Natural Heritage	14
	3.7	Design Change 7– Reconfigured Collector Cable to Turbines 24 and 25	15
		3.7.1 Description of Change	15
		3.7.2 Rationale for Change	15
		3.1.3 Archaeological Assessment	15

GL Garrad Hassan Canada, Inc.

38	3.7.4 Natural Heritage	16 16
5.0	2.8.1 Description of Change	10
	3.8.1 Description of Change	10
	3.8.3 Archaeological Assessment	17
	3.8.4 Natural Heritage	17
3.9	Design Change 9 – Relocated Collector Cable to Turbine 27	17
	3.9.1 Description of Change	17
	3.9.2 Rationale for Change	18
	3.9.3 Archaeological Assessment	18
	3.9.4 Natural Heritage	18
3.10	Design Change 10 – Partial Collector Cable to Turbine 8 Relocated	19
	3.10.1 Description of Change	19
	3.10.2 Rationale for Change	19
	3.10.5 Alchaeological Assessment	19
3 11	Design Change 11 – Partial Collector Cable from Turbine 4 Relocated South	20
5.11	3.11.1 Description of Change	20
	3.11.2 Rationale for Change	20
	3.11.3 Archaeological Assessment	21
	3.11.4 Natural Heritage	21
3.12	Design Change 12 – Partial Collector Cable from Turbine 4 Relocated North	21
	3.12.1 Description of Change	21
	3.12.2 Rationale for Change	22
	3.12.3 Archaeological Assessment	22
	3.12.4 Natural Heritage	23
3.13	Design Change 13 –12 Moved 62 m East	23
	3.13.1 Description of Change	23
	3.13.2 Rationale for Change	23
	3.13.3 Archaeological Assessment	24
2 1 4	3.13.4 Natural Heritage	24
5.14	2 14 1 Description of Change	24
	3.14.1 Description of Change	24
	3.14.3 Archaeological Assessment	25
	3.14.4 Natural Heritage	25
3.15	Design Change 15- Relocation of the Parkhill Substation, Re-configuration of	20
	Associated Transmission Lines and Access Road	26
	3.15.1 Description of Change	26
	3.15.2 Rationale for Change	26
	3.15.3 Archaeological Assessment	27
_	3.15.4 Natural Heritage	27
3.16	Design Change 16- Addition of approximately 5 acres to the Project substation and Operations and Maintenance (O&M) area	27
	3 16 1 Description of Change	 77
	3.16.2 Rationale for Change	28
	3.16.3 Archaeological Assessment	28

GL Garrad Hassan Canada, Inc.

	3.16.4	Natural Heritage	28
4	STANDAR	DIZATION OF TURBINE DISTURBANCE AREAS	29
	4.1.1	Archaeological Assessment	29
	4.1.2	Natural Heritage	29
5	NOISE IMI	PACT ASESSMENT	30
6	CONSULT	ATIONS	31
7	REFEREN	CES	32
APP	ENDIX A	ORIGINAL VS. MODIFIED PROJECT DESIGN MAPS	
APP	ENDIX B	CONFIRMATION LETTERS FROM MTCS AND MNR	
APP	ENDIX C	BUILT HERITAGE ADDENDUM B	
APP	ENDIX D	ADDITIONAL ARCHAEOLOGY – PARKHILL	
APP	ENDIX E	ADDITIONAL ARCHAEOLOGY -ADELAIDE	
APP	ENDIX F	NATURAL HERITAGE ADDENDUM	

# LIST OF TABLES

		2
Table 7 1. Leangraphic coordinate	e of the Wind Hnergy Centre Study Area	4
1 a n c 2 - 1. Geographic containate		
	~ · · · · · · · · · · · · · · · · · · ·	+

# LIST OF FIGURES

Figure 2-1: Project study area	4
Figure 3-1: Design Change 1	7
Figure 3-2: Design Change 2	8
Figure 3-3: Design Change 3	10
Figure 3-4: Design Change 4	11
Figure 3-5: Design Change 5	12
Figure 3-6: Design Change 6	14
Figure 3-7: Design Change 7	15
Figure 3-8: Design Change 8	16
Figure 3-9: Design Change 9	18

Figure 3-10: Design Change 10	19
Figure 3-11: Design Change 11	20
Figure 3-12: Design Change 12	22
Figure 3-13: Design Change 13	23
Figure 3-14: Design Change 14	25
Figure 3-15: Design Change 15	26
Figure 3-16: Design Change 16	28

## 1 **PREAMBLE**

NextEra Energy Canada, ULC (the "Client") is proposing to develop the Adelaide Wind Energy Centre (the "Project") which is subject to Ontario Regulation 359/09 (Renewable Energy Approvals (REA) [1] under Part V.0.1 of the Ontario Environmental Protection Act (EPA)) and Regulation 521/10 [2]. Kerwood Wind, Inc. (the "Proponent"), was awarded a FIT Contract for this Project in July 2011, and is seeking a Renewable Energy Approval from the Ontario Ministry of the Environment (MOE). Kerwood Wind, Inc. is a wholly-owned subsidiary of NextEra Energy Canada ULC. The parent company of NextEra Energy Canada ULC is NextEra Energy Resources, LLC, a global leader in wind energy generation with a current operating portfolio of over 8,800 wind turbines across North America.

Subsequent to the public release of the Project's REA reports in April 2012, but prior to the final public open houses, the Project design has undergone a number of modifications with respect to the original Project layout as released in April, 2012. The ultimate layout as presented at the final public meetings included the changes described herein. Descriptions of and rationales for these changes are presented herein, as are the implications that these changes are anticipated to have on the Archaeological and Natural Heritage Assessments.

This Project Design Change Summary Report has been prepared in accordance with Chapter 10, Section 3 of MOE's "Technical Guide to Renewable Energy Approvals" [3].

## 2 DESCRIPTION OF PROJECT

#### 2.1 **Project Name and Project Proponent**

The name of the project is Adelaide Wind Energy Centre (hereafter referred to as "the Project"); Kerwood Wind, Inc. is the Project proponent (the "Proponent").

#### 2.2 General Project Description

The proposed Project Study Area comprises two main sectors, the Wind Energy Centre Study Area, which contains the wind farm itself, and its associated infrastructure, and the Transmission Line Study Area. Within the transmission line study area, Kerwood wind Inc. is proposing a 115 kV transmission line to run from the Project's substation on to a switchyard and then on to a second substation (Parkhill substation) where it will be transferred to a Hydro One-owned switchyard and on to Hydro One's 500 kV transmission line at the east end of the Transmission Line Study Area. It is important to note that the 115 kV line running from the switchyard to the Parkhill substation then to the Hydro One-owned switchyard on to Hydro One's existing 500 kV line is common to three of NextEra's Projects, i.e. Adelaide, Bornish and Jericho Wind Energy Centres.

The Wind Energy Centre Study Area is located in south-western Ontario, in the Township of Adelaide-Metcalfe, Middlesex County, Ontario. More specifically, the wind farm components are located south of Townsend Line, west of Centre Road, north of Napperton Drive and east of Sexton Road. The total Wind Energy Centre Study Area is approximately 6,515 ha. Project components will be installed on privately-owned agricultural lots within this area, though the Project's collection system will be partially located on public rights-of-way. General geographic coordinates of the Wind Energy Centre Study Area are presented in Table 1-1.

Site	Easting	Northing
Northwest corner	436378	4767049
Northeast corner	447998	4767049
Southwest corner	447998	4756197
Southeast corner	436378	4756197

 Table 1-1: Geographic coordinates of the Wind Energy Centre Study Area

The Project also comprises a proposed transmission route which is located to the north of the Wind Energy Centre Study Area and crosses into the Municipality of North Middlesex. The proposed transmission route is to travel north from the Project substation using the existing right-of-way along Kerwood Road to a switchyard located just south of Elginfield Road. From there the transmission route is proposed to run east along Elginfield and Nairn Roads within municipal rights-of-way to a second, Parkhill, substation then to a Hydro one-owned switchyard on to an existing Hydro One 500 kV transmission line. General natural heritage information in the vicinity of the transmission line route is provided in the Natural Heritage Assessment reports, which are submitted as part of the complete REA application package.

The location of the Wind Energy Centre Study Area was defined early in the planning process for the proposed wind energy facility, based on the wind resource, approximate area required for the proposed Project, and availability of existing infrastructure for connection to the electrical grid. The Project Study Area was used to facilitate information collection and Records Review.







## 2.3 Description of the Energy Source, Nameplate Capacity, and Class of Facility

The wind turbine generators of the Project will convert the wind's energy into electricity which will be fed into the Hydro One transmission system. This Project is considered to be a Class 4 Wind Facility. The Project is proposed to consist of 37, 1.62 MW turbines with a total nameplate capacity of up to 59.9 MW, though 38 turbine locations will be permitted.

## 2.4 Contact Information

## **Project Proponent**

The Project proponent is Kerwood Wind Inc., a developer of wind energy. The primary contact for Kerwood Wind Inc. for this Project is:

Ben Greenhouse NextEra Energy Canada, ULC North Service Road, Suite 205 Burlington, ON L7L 6W6 Phone 1-877-257-7330 Fax 905-335-5731 www.NextEraEnergyCanada.com Adelaide.Wind@NextEraEnergy.com

#### **Project Consultant**

GL Garrad Hassan Canada, Inc. (hereafter referred to as "GL GH"), a member of the GL Group and part of the GL Garrad Hassan brand, has been retained to lead the environmental assessment for the Adelaide Wind Energy Centre.

The Environmental and Permitting Services team of GL GH has completed mandates throughout Canada, the United States and in many other parts of the world. These mandates include permitting management, permit applications, environmental impact assessment, and various environmental studies for more than 15,000 MW of wind and solar-PV projects.

GL GH's environmental team is composed of over 20 environmental professionals, including environmental impact specialists, planners, GIS, technicians and engineers.

GL GH has no equity stake in any device or project. This rule of operation is central to its philosophy, distinguishing it from many other players and underscoring its independence.

GL GH's contact information is as follows:

Nancy O'Blenes GL Garrad Hassan Canada, Inc. 19 Carmody Lane Uxbridge, ON L9P 1A5 Tel.: (416) 801-6822 nancy.oblenes@gl-garradhassan.com

Further information about GL GH can be found at: www.gl-garradhassan.com.

## **3 CHANGES TO PROJECT DESIGN**

#### 3.1 Design Change 1 – Permanent Meteorological Tower Location

#### **Description of Change**

The permanent meteorological tower is located in the southwest section of the Project area. The proposed location is approximately 502 m west of Turbine 31.

Figure 3-1 below shows a screenshot of this design change.



Figure 3-1: Design Change 1

#### **Rationale for Change**

At the time the Site plan was released for public consultation the final location of the permanent meteorological tower had not been confirmed. Pursuant to consultation with the affected landowner and the development team a final location has been confirmed.

Specific to the Noise Impact Assessment (NIA), this change does not have a negative effect on points of reception identified by the NIA, which is available as part of the final REA submission package.

#### Archaeological Assessment

A Stage 2 archaeological study of the Project design change was conducted [5] and concluded that no negative impact on archaeological resources is anticipated as a result of this change. A copy of this report will be included as part of the complete REA Application Package.

MTCS had previously issued a written letter [4] informing the MOE that the MTCS was satisfied with the archaeological recommendations made during Stage 1 and Stage 2 archaeological assessments concerning those archaeological sites impacted by the original Project design (see Appendix B). Subsequent to the above-described Project design change and per MOE requirements [3], MTCS was duly notified of the design change and the details thereof. Pursuant to follow-up Stage 2 archaeological assessment and reporting to said regulatory body and its review of the additional reporting provided, the MTCS has determined that the Project design change has been addressed by this additional Stage 2 archaeological assessment.

## Natural Heritage

A Natural Heritage review of the natural features within 120 m of the Project design change was conducted and concluded that no negative impact on natural heritage features is anticipated as a result of this change.

MNR had previously issued a written letter confirming that the Natural Heritage Features within 120 m of the original Project Location have been adequately studied and effectively addressed through proposed mitigation measures [6] (see Appendix B). Subsequent to the above-described Project design change and as per MOE requirements [3], MNR has been duly notified of the design change and the details thereof. Pursuant to follow-up discussions with the said regulatory body and its review of the documentation provided, the MNR has determined that the Project design change is not expected to alter the conclusions drawn in the previously conducted Natural Heritage Assessment [7].

## **3.2** Design Change 2 – Removal of Access Road to Turbine 30

#### **Description of Change**

The west access road to Turbine 30 has been removed from the Project layout. Turbine 30 will be accessed via a new access road travelling south from Turbine 31.

Figure 3-2 below shows a screenshot of this design change.



Figure 3-2: Design Change 2

GL Garrad Hassan Canada, Inc.



#### **Rationale for Change**

The reconfigured access road to Turbine 30 is a result of consultation with the affected landowner to reduce the impact on active agricultural land by reducing the length of road required.

Specific to the Noise Impact Assessment (NIA), this change does not have a negative effect on points of reception identified by the NIA, which is available as part of the final REA submission package.

#### Archaeological Assessment

A Stage 2 archaeological study of the Project design change identified was conducted [5] and concluded that no negative impact on archaeological resources is anticipated as a result of this change. A copy of this report will be included as part of the complete REA Application Package.

MTCS had previously issued a written letter [4] informing the MOE that the MTCS was satisfied with the archaeological recommendations made during Stage 1 and Stage 2 archaeological assessments concerning those archaeological sites impacted by the original Project design (see Appendix B). Subsequent to the above-described Project design change and per MOE requirements [3], MTCS was duly notified of the design change and the details thereof. Pursuant to follow-up Stage 2 archaeological assessment and reporting to said regulatory body and its review of the additional reporting provided, the MTCS has determined that the Project design change has been addressed by this additional Stage 2 archaeological assessment.

#### Natural Heritage

A Natural Heritage review of the natural features within 120 m of the Project design change was conducted and concluded that no negative impact on natural heritage features is anticipated as a result of this change.

MNR had previously issued a written letter confirming that the Natural Heritage Features within 120 m of the original Project Location have been adequately studied and effectively addressed through proposed mitigation measures [6] (see Appendix B). Subsequent to the above-described Project design change and as per MOE requirements [3], MNR has been duly notified of the design change and the details thereof. Pursuant to follow-up discussions with the said regulatory body and its review of the documentation provided, the MNR has determined that the Project design change is not expected to alter the conclusions drawn in the previously conducted Natural Heritage Assessment [7].

## 3.3 Design Change 3 – Reconfigured Access Roads to Turbines 13 and 14

#### **Description of Change**

The access road for Turbines 13 and 14 has been re-configured to travel along the north property lines of the properties hosting the turbines.

Figure 3-3 below shows a screenshot of this design change.





Figure 3-3: Design Change 3

## **Rationale for Change**

Pursuant to consultation with the affected landowners the proposed layout was optimized to reduce the impact on the operation of active agricultural land by re-routing the access road and collector cable to follow the edge of crop lines as closely as possible.

Specific to the Noise Impact Assessment (NIA), this change does not have a negative effect on points of reception identified by the NIA, which is available as part of the final REA submission package.

#### Archaeological Assessment

A Stage 2 archaeological study of the Project design change was conducted [5] and concluded that no negative impact on archaeological resources is anticipated as a result of this change. A copy of this report will be included as part of the complete REA Application Package.

MTCS had previously issued a written letter [4] informing the MOE that the MTCS was satisfied with the archaeological recommendations made during Stage 1 and Stage 2 archaeological assessments concerning those archaeological sites impacted by the original Project design (see Appendix B). Subsequent to the above-described Project design change and per MOE requirements [3], MTCS was duly notified of the design change and the details thereof. Pursuant to follow-up Stage 2 archaeological assessment and reporting to said regulatory body and its review of the additional reporting provided, the MTCS has determined that the Project design change has been addressed by this additional Stage 2 archaeological assessment.

## Natural Heritage

A Natural Heritage review of the natural features within 120 m of the Project design change was conducted and concluded that no negative impact on natural heritage features is anticipated as a result of this change.



MNR had previously issued a written letter confirming that the Natural Heritage Features within 120 m of the original Project Location have been adequately studied and effectively addressed through proposed mitigation measures [6] (see Appendix B). Subsequent to the above-described Project design change and as per MOE requirements [3], MNR has been duly notified of the design change and the details thereof. Pursuant to follow-up discussions with the said regulatory body and its review of the documentation provided, the MNR has determined that the Project design change is not expected to alter the conclusions drawn in the previously conducted Natural Heritage Assessment [7].

## 3.4 Design Change 4 – Reconfigured Collector Cable and Access Road to Turbine 33

## **Description of Change**

The collector cable and access road to Turbine 33 has been re-configured to travel directly west of Turbine 34.



Figure 3-4 below shows a screenshot of this design change.

Figure 3-4: Design Change 4

## **Rationale for Change**

Pursuant to consultation with the affected landowner and the construction team the layout has been optimized to reduce the length of access road and collector cable required.

Specific to the Noise Impact Assessment (NIA), this change does not have a negative effect on points of reception identified by the NIA, which is available as part of the final REA submission package.

#### Archaeological Assessment

A Stage 2 archaeological study of the Project design change identified was conducted [5] and concluded that no negative impact on archaeological resources is anticipated as a result of this change. A copy of this report will be included as part of the complete REA Application Package.

GL Garrad Hassan Canada, Inc.



MTCS had previously issued a written letter [4] informing the MOE that the MTCS was satisfied with the archaeological recommendations made during Stage 1 and Stage 2 archaeological assessments concerning those archaeological sites impacted by the original Project design (see Appendix B). Subsequent to the above-described Project design change and per MOE requirements [3], MTCS was duly notified of the design change and the details thereof. Pursuant to follow-up Stage 2 archaeological assessment and reporting to said regulatory body and its review of the additional reporting provided, the MTCS has determined that the Project design change has been addressed by this additional Stage 2 archaeological assessment.

## Natural Heritage

A Natural Heritage review of the natural features within 120 m of the Project design change was conducted and concluded that no negative impact on natural heritage features is anticipated as a result of this change.

MNR had previously issued a written letter confirming that the Natural Heritage Features within 120 m of the original Project Location have been adequately studied and effectively addressed through proposed mitigation measures [6] (see Appendix B). Subsequent to the above-described Project design change and as per MOE requirements [3], MNR has been duly notified of the design change and the details thereof. Pursuant to follow-up discussions with the said regulatory body and its review of the documentation provided, the MNR has determined that the Project design change is not expected to alter the conclusions drawn in the previously conducted Natural Heritage Assessment [7].

## 3.5 Design Change 5 – Turbine 35 Move

#### **Description of Change**

Turbine 35 has been relocated 5 m to the west of the original proposed layout.

Figure 3-5Figure 3-5 below shows a screenshot of this design change.



Figure 3-5: Design Change 5

GL Garrad Hassan Canada, Inc.



#### Archaeological Assessment

A Stage 2 archaeological study of the Project design change was conducted [5] and concluded that no negative impact on archaeological resources is anticipated as a result of this change. A copy of this report will be included as part of the complete REA Application Package.

MTCS had previously issued a written letter [4] informing the MOE that the MTCS was satisfied with the archaeological recommendations made during Stage 1 and Stage 2 archaeological assessments concerning those archaeological sites impacted by the original Project design (see Appendix B). Subsequent to the above-described Project design change and per MOE requirements [3], MTCS was duly notified of the design change and the details thereof. Pursuant to follow-up Stage 2 archaeological assessment and reporting to said regulatory body and its review of the additional reporting provided, the MTCS has determined that the Project design change has been addressed by this additional Stage 2 archaeological assessment.

#### Natural Heritage

A Natural Heritage review of the natural features within 120 m of the Project design change was conducted and concluded that no negative impact on natural heritage features is anticipated as a result of this change.

MNR had previously issued a written letter confirming that the Natural Heritage Features within 120 m of the original Project Location have been adequately studied and effectively addressed through proposed mitigation measures [6] (see Appendix B). Subsequent to the above-described Project design change and as per MOE requirements [3], MNR has been duly notified of the design change and the details thereof. Pursuant to follow-up discussions with the said regulatory body and its review of the documentation provided, the MNR has determined that the Project design change is not expected to alter the conclusions drawn in the previously conducted Natural Heritage Assessment [7].

#### **3.6** Design Change 6 – Reconfigured Collector Cable between Turbines 36 and 37

#### **Description of Change**

The collector cable from turbine 36 to turbine 37 has been reconfigured to the south to follow the access road.

Figure 3-6 below shows a screenshot of this design change.



Figure 3-6: Design Change 6

#### **Rationale for Change**

At the request of the landowner and in consultation with the construction team, the layout was optimized to follow the access road, reducing the disturbance of active agricultural land during construction.

Specific to the Noise Impact Assessment (NIA), this change does not have a negative effect on points of reception identified by the NIA, which is available as part of the final REA submission package.

#### Archaeological Assessment

A Stage 2 archaeological study of the Project design change identified was conducted [5] and concluded that no negative impact on archaeological resources is anticipated as a result of this change. A copy of this report will be included as part of the complete REA Application Package.

MTCS had previously issued a written letter [4] informing the MOE that the MTCS was satisfied with the archaeological recommendations made during Stage 1 and Stage 2 archaeological assessments concerning those archaeological sites impacted by the original Project design (see Appendix B). Subsequent to the above-described Project design change and per MOE requirements [3], MTCS was duly notified of the design change and the details thereof. Pursuant to follow-up Stage 2 archaeological assessment and reporting to said regulatory body and its review of the additional reporting provided, the MTCS has determined that the Project design change has been addressed by this additional Stage 2 archaeological assessment.

#### Natural Heritage

A Natural Heritage review of the natural features within 120 m of the Project design change was conducted and concluded that no negative impact on natural heritage features is anticipated as a result of this change.

MNR had previously issued a written letter confirming that the Natural Heritage Features within 120 m of the original Project Location have been adequately studied and effectively addressed through proposed mitigation measures [6] (see Appendix B). Subsequent to the above-described Project design change and



as per MOE requirements [3], MNR has been duly notified of the design change and the details thereof. Pursuant to follow-up discussions with the said regulatory body and its review of the documentation provided, the MNR has determined that the Project design change is not expected to alter the conclusions drawn in the previously conducted Natural Heritage Assessment [7].

## 3.7 Design Change 7– Reconfigured Collector Cable to Turbines 24 and 25

## **Description of Change**

The collector cable from Turbine 24 has been re-configured to travel north from Mullifarry Drive then east to Turbine 25. The collector cable from the original design to Turbine 24, east from Brown Road, has been removed.

Figure 3-7 below shows a screenshot of this design change.



Figure 3-7: Design Change 7

## **Rationale for Change**

At the request of the landowner and in consultation with the construction team, the layout has been optimized to reduce the disturbance of active agricultural land during construction.

Specific to the Noise Impact Assessment (NIA), this change does not have a negative effect on points of reception identified by the NIA, which is available as part of the final REA submission package.

## Archaeological Assessment

A Stage 2 archaeological study of the Project design change identified was conducted [5] and concluded that no negative impact on archaeological resources is anticipated as a result of this change. A copy of this report will be included as part of the complete REA Application Package.

MTCS had previously issued a written letter [4] informing the MOE that the MTCS was satisfied with the archaeological recommendations made during Stage 1 and Stage 2 archaeological assessments concerning



those archaeological sites impacted by the original Project design (see Appendix B). Subsequent to the above-described Project design change and per MOE requirements [3], MTCS was duly notified of the design change and the details thereof. Pursuant to follow-up Stage 2 archaeological assessment and reporting to said regulatory body and its review of the additional reporting provided, the MTCS has determined that the Project design change has been addressed by this additional Stage 2 archaeological assessment.

## Natural Heritage

A Natural Heritage review of the natural features within 120 m of the Project design change identified was conducted and concluded that no negative impact on natural heritage features is anticipated as a result of this change.

MNR had previously issued a written letter confirming that the Natural Heritage Features within 120 m of the original Project Location have been adequately studied and effectively addressed through proposed mitigation measures [6] (see Appendix B). Subsequent to the above-described Project design change and as per MOE requirements [3], MNR has been duly notified of the design change and the details thereof. Pursuant to follow-up discussions with the said regulatory body and its review of the documentation provided, the MNR has determined that the Project design change is not expected to alter the conclusions drawn in the previously conducted Natural Heritage Assessment [7].

## 3.8 Design Change 8 – Relocated Collector Cable to Turbine 26

#### **Description of Change**

The collector cable from Turbine 26 has been moved approximately 9-13 m to the east of the original proposed location.

Figure 3-8 below shows a screenshot of this design change.



Figure 3-8: Design Change 8



## **Rationale for Change**

In consultation with the affected landowner and the construction team, the layout was optimized to utilize private lands instead of the previous location proposed on the municipal right of way.

Specific to the Noise Impact Assessment (NIA), this change does not have a negative effect on points of reception identified by the NIA, which is available as part of the final REA submission package.

#### Archaeological Assessment

A Stage 2 archaeological study of the Project design change was conducted [5] and concluded that no negative impact on archaeological resources is anticipated as a result of this change. A copy of this report will be included as part of the complete REA Application Package.

MTCS had previously issued a written letter [4] informing the MOE that the MTCS was satisfied with the archaeological recommendations made during Stage 1 and Stage 2 archaeological assessments concerning those archaeological sites impacted by the original Project design (see Appendix B). Subsequent to the above-described Project design change and per MOE requirements [3], MTCS was duly notified of the design change and the details thereof. Pursuant to follow-up Stage 2 archaeological assessment and reporting to said regulatory body and its review of the additional reporting provided, the MTCS has determined that the Project design change has been addressed by this additional Stage 2 archaeological assessment.

#### Natural Heritage

A Natural Heritage review of the natural features within 120 m of the Project design change was conducted and concluded that no negative impact on natural heritage features is anticipated as a result of this change.

MNR had previously issued a written letter confirming that the Natural Heritage Features within 120 m of the original Project Location have been adequately studied and effectively addressed through proposed mitigation measures [6] (see Appendix B). Subsequent to the above-described Project design change and as per MOE requirements [3], MNR has been duly notified of the design change and the details thereof. Pursuant to follow-up discussions with the said regulatory body and its review of the documentation provided, the MNR has determined that the Project design change is not expected to alter the conclusions drawn in the previously conducted Natural Heritage Assessment [7].

## **3.9** Design Change 9 – Relocated Collector Cable to Turbine 27

#### **Description of Change**

The collector cable from Turbine 27 has been moved approximately 15- 32 m to the east of the original proposed location.

Figure 3-9 below shows a screenshot of this design change.





Figure 3-9: Design Change 9

#### **Rationale for Change**

In consultation with the affected landowner and the construction team, the layout was optimized to utilize private lands instead of the previous location proposed on the municipal right of way.

Specific to the Noise Impact Assessment (NIA), this change does not have a negative effect on points of reception identified by the NIA, which is available as part of the final REA submission package.

#### Archaeological Assessment

A Stage 2 archaeological study of the Project design change was conducted [5] and concluded that no negative impact on archaeological resources is anticipated as a result of this change. A copy of this report will be included as part of the complete REA Application Package.

MTCS had previously issued a written letter [4] informing the MOE that the MTCS was satisfied with the archaeological recommendations made during Stage 1 and Stage 2 archaeological assessments concerning those archaeological sites impacted by the original Project design (see Appendix B). Subsequent to the above-described Project design change and per MOE requirements [3], MTCS was duly notified of the design change and the details thereof. Pursuant to follow-up Stage 2 archaeological assessment and reporting to said regulatory body and its review of the additional reporting provided, the MTCS has determined that the Project design change has been addressed by this additional Stage 2 archaeological assessment.

#### **Natural Heritage**

A Natural Heritage review of the natural features within 120 m of the Project design change was conducted and concluded that no negative impact on natural heritage features is anticipated as a result of this change.

MNR had previously issued a written letter confirming that the Natural Heritage Features within 120 m of the original Project Location have been adequately studied and effectively addressed through proposed

mitigation measures [6] (see Appendix B). Subsequent to the above-described Project design change and as per MOE requirements [3], MNR has been duly notified of the design change and the details thereof. Pursuant to follow-up discussions with the said regulatory body and its review of the documentation provided, the MNR has determined that the Project design change is not expected to alter the conclusions drawn in the previously conducted Natural Heritage Assessment [7].

## 3.10 Design Change 10 – Partial Collector Cable to Turbine 8 Relocated

## **Description of Change**

Part of the collector cable for to Turbine 8 has been moved approximately 30 m west of the original proposed location.

Figure 3-10 below shows a screenshot of this design change.



Figure 3-10: Design Change 10

## **Rationale for Change**

In consultation with the affected landowner and the construction team, the layout was optimized to locate part of the collector cable to Turbine 8 on private lands instead of the previous location proposed on the municipal right of way.

Specific to the Noise Impact Assessment (NIA), this change does not have a negative effect on points of reception identified by the NIA, which is available as part of the final REA submission package.

## Archaeological Assessment

A Stage 2 archaeological study of the Project design change was conducted [5] and concluded that no negative impact on archaeological resources is anticipated as a result of this change. A copy of this report will be included as part of the complete REA Application Package.



MTCS had previously issued a written letter [4] informing the MOE that the MTCS was satisfied with the archaeological recommendations made during Stage 1 and Stage 2 archaeological assessments concerning those archaeological sites impacted by the original Project design (see Appendix B). Subsequent to the above-described Project design change and per MOE requirements [3], MTCS was duly notified of the design change and the details thereof. Pursuant to follow-up Stage 2 archaeological assessment and reporting to said regulatory body and its review of the additional reporting provided, the MTCS has determined that the Project design change has been addressed by this additional Stage 2 archaeological assessment.

## Natural Heritage

A Natural Heritage review of the natural features within 120 m of the Project design change was conducted and concluded that no negative impact on natural heritage features is anticipated as a result of this change.

MNR had previously issued a written letter confirming that the Natural Heritage Features within 120 m of the original Project Location have been adequately studied and effectively addressed through proposed mitigation measures [6] (see Appendix B). Subsequent to the above-described Project design change and as per MOE requirements [3], MNR has been duly notified of the design change and the details thereof. Pursuant to follow-up discussions with the said regulatory body and its review of the documentation provided, the MNR has determined that the Project design change is not expected to alter the conclusions drawn in the previously conducted Natural Heritage Assessment [7].

## 3.11 Design Change 11 – Partial Collector Cable from Turbine 4 Relocated South

#### **Description of Change**

The collector cable from Turbine 4 has been re-located approximately 150 m south of the original proposed location. The cable will run approximately 586 m west in this position along Cuddy Drive.



Figure 3-11: Design Change 11



## **Rationale for Change**

In consultation with the affected landowners and the construction team, the layout was optimized to locate part of the collector cable from Turbine 4 on private lands instead of the previous location proposed on the municipal right of way.

Specific to the Noise Impact Assessment (NIA), this change does not have a negative effect on points of reception identified by the NIA, which is available as part of the final REA submission package.

#### Archaeological Assessment

A Stage 2 archaeological study of the Project design change was conducted [5] and concluded that no negative impact on archaeological resources is anticipated as a result of this change. A copy of this report will be included as part of the complete REA Application Package.

MTCS had previously issued a written letter [4] informing the MOE that the MTCS was satisfied with the archaeological recommendations made during Stage 1 and Stage 2 archaeological assessments concerning those archaeological sites impacted by the original Project design (see Appendix B). Subsequent to the above-described Project design change and per MOE requirements [3], MTCS was duly notified of the design change and the details thereof. Pursuant to follow-up Stage 2 archaeological assessment and reporting to said regulatory body and its review of the additional reporting provided, the MTCS has determined that the Project design change has been addressed by this additional Stage 2 archaeological assessment.

## Natural Heritage

A Natural Heritage review of the natural features within 120 m of the Project design change was conducted and concluded that no negative impact on natural heritage features is anticipated as a result of this change.

MNR had previously issued a written letter confirming that the Natural Heritage Features within 120 m of the original Project Location have been adequately studied and effectively addressed through proposed mitigation measures [6] (see Appendix B). Subsequent to the above-described Project design change and as per MOE requirements [3], MNR has been duly notified of the design change and the details thereof. Pursuant to follow-up discussions with the said regulatory body and its review of the documentation provided, the MNR has determined that the Project design change is not expected to alter the conclusions drawn in the previously conducted Natural Heritage Assessment [7].

## 3.12 Design Change 12 – Partial Collector Cable from Turbine 4 Relocated North

## **Description of Change**

Part of the collector cable from Turbine 4 has been relocated approximately 25 m to the north of the original proposed location and runs approximately 1.2 km to the west along Cuddy Road.



Figure 3 -12 below shows a screenshot of this design change.



Figure 3-12: Design Change 12

## **Rationale for Change**

In consultation with the affected landowners and the construction team, the layout was optimized to locate part of the collector cable from Turbine 4 on private lands instead of the previous location proposed on the municipal right of way.

Specific to the Noise Impact Assessment (NIA), this change does not have a negative effect on points of reception identified by the NIA, which is available as part of the final REA submission package.

## Archaeological Assessment

A Stage 2 archaeological study of the Project design change was conducted [5] and concluded that no negative impact on archaeological resources is anticipated as a result of this change. A copy of this report will be included as part of the complete REA Application Package.

MTCS had previously issued a written letter [4] informing the MOE that the MTCS was satisfied with the archaeological recommendations made during Stage 1 and Stage 2 archaeological assessments concerning those archaeological sites impacted by the original Project design (see Appendix B). Subsequent to the above-described Project design change and per MOE requirements [3], MTCS was duly notified of the design change and the details thereof. Pursuant to follow-up Stage 2 archaeological assessment and reporting to said regulatory body and its review of the additional reporting provided, the MTCS has determined that the Project design change has been addressed by this additional Stage 2 archaeological assessment.

## Natural Heritage

A Natural Heritage review of the natural features within 120 m of the Project design change was conducted and concluded that no negative impact on natural heritage features is anticipated as a result of this change.

MNR had previously issued a written letter confirming that the Natural Heritage Features within 120 m of the original Project Location have been adequately studied and effectively addressed through proposed mitigation measures [6] (see Appendix B). Subsequent to the above-described Project design change and as per MOE requirements [3], MNR has been duly notified of the design change and the details thereof. Pursuant to follow-up discussions with the said regulatory body and its review of the documentation provided, the MNR has determined that the Project design change is not expected to alter the conclusions drawn in the previously conducted Natural Heritage Assessment [7].

## 3.13 Design Change 13 – T2 Moved 62 m East

#### **Description of Change**

Turbine 2 and its associated road has been moved 62 m east of the location presented in the original proposed layout.

Figure 3-13 below shows a screenshot of this design change.



Figure 3-13: Design Change 13

#### **Rationale for Change**

This design change was made to address the concern of a landowner located directly west of the turbine location.

Specific to the Noise Impact Assessment (NIA), this change does not impact the noise compliance of turbine 2. All noise levels for non-participating points of reception remain below 40 dBA as identified by the NIA, which is available as part of the final REA submission package.

GL Garrad Hassan Canada, Inc.



#### Archaeological Assessment

A Stage 2 archaeological study of the Project design change was conducted [5] and concluded that no negative impact on archaeological resources is anticipated as a result of this change. A copy of this report will be included as part of the complete REA Application Package.

MTCS had previously issued a written letter [4] informing the MOE that the MTCS was satisfied with the archaeological recommendations made during Stage 1 and Stage 2 archaeological assessments concerning those archaeological sites impacted by the original Project design (see Appendix B). Subsequent to the above-described Project design change and per MOE requirements [3], MTCS was duly notified of the design change and the details thereof. Pursuant to follow-up Stage 2 archaeological assessment and reporting to said regulatory body and its review of the additional reporting provided, the MTCS has determined that the Project design change has been addressed by this additional Stage 2 archaeological assessment.

## Natural Heritage

A Natural Heritage review of the natural features within 120 m of the Project design change was conducted and concluded that no negative impact on natural heritage features is anticipated as a result of this change.

MNR had previously issued a written letter confirming that the Natural Heritage Features within 120 m of the original Project Location have been adequately studied and effectively addressed through proposed mitigation measures [6] (see Appendix B). Subsequent to the above-described Project design change and as per MOE requirements [3], MNR has been duly notified of the design change and the details thereof. Pursuant to follow-up discussions with the said regulatory body and its review of the documentation provided, the MNR has determined that the Project design change is not expected to alter the conclusions drawn in the previously conducted Natural Heritage Assessment [7].

#### 3.14 Design Change 14 – Relocation of Transmission Line

Subsequent to presenting the following proposed change to the Public and in consultation with Hydro One, the affected landowner and the engineering team, the proposed design change has been revoked. The originally proposed transmission line routing within existing rights-of-way will be used in the area described below.

#### **Description of Change**

The transmission line has been relocated approximately 50 m east of the original proposed location. This section runs approximately 1 km to the north along the private easement then returns to municipal right-of-way.

Figure 3-14 below shows a screenshot of this design change.





Figure 3-14: Design Change 14

## **Rationale for Change**

In consultation with the affected landowners and the construction team, the layout was optimized to use private easements where possible.

Specific to the Noise Impact Assessment (NIA), this change does not have a negative effect on points of reception identified by the NIA, which is available as part of the final REA submission package.

#### Archaeological Assessment

A Stage 2 archaeological study of the Project design change was conducted [5] and concluded that no negative impact on archaeological resources is anticipated as a result of this change. A copy of this report will be included as part of the complete REA Application Package.

MTCS had previously issued a written letter [4] informing the MOE that the MTCS was satisfied with the archaeological recommendations made during Stage 1 and Stage 2 archaeological assessments concerning those archaeological sites impacted by the original Project design (see Appendix B). Subsequent to the above-described Project design change and per MOE requirements [3], MTCS was duly notified of the design change and the details thereof. Pursuant to follow-up Stage 2 archaeological assessment and reporting to said regulatory body and its review of the additional reporting provided, the MTCS has determined that the Project design change has been addressed by this additional Stage 2 archaeological assessment.

## Natural Heritage

A Natural Heritage review of the natural features within 120 m of the Project design change was conducted and concluded that no negative impact on natural heritage features is anticipated as a result of this change.

MNR had previously issued a written letter confirming that the Natural Heritage Features within 120 m of the original Project Location have been adequately studied and effectively addressed through proposed

mitigation measures [6] (see Appendix B). Subsequent to the above-described Project design change and as per MOE requirements [3], MNR has been duly notified of the design change and the details thereof. Pursuant to follow-up discussions with the said regulatory body and its review of the documentation provided, the MNR has determined that the Project design change is not expected to alter the conclusions drawn in the previously conducted Natural Heritage Assessment [7].

## 3.15 Design Change 15- Relocation of the Parkhill Substation, Re-configuration of Associated Transmission Lines and Access Road

## **Description of Change**

The Parkhill substation has been relocated approximately 135 m west and approximately 520 m north of the original proposed location. The change in the substation location has resulted in the reconfiguration of the transmission line, which now runs approximately 208 m west and approximately 700 m north of the original location.

Figure 3-15 below shows a screenshot of this design change.



Figure 3-15: Design Change 15

## **Rationale for Change**

In consultation with the construction team and the Ausable Bayfield Conservation Authority (ABCA), the substation was re-located to a more favourable position.

Specific to the Noise Impact Assessment (NIA), this change does not impact the noise compliance of the Parkhill Substation. All noise levels for non-participating points of reception remain below 40 dBA as identified by the NIA, which is available as part of the final REA submission package.

#### **Archaeological Assessment**

A Stage 2 archaeological study of the Project design change was conducted [5] and concluded that no negative impact on archaeological resources is anticipated as a result of this change. A copy of this report will be included as part of the complete REA Application Package.

MTCS had previously issued a written letter [4] informing the MOE that the MTCS was satisfied with the archaeological recommendations made during Stage 1 and Stage 2 archaeological assessments concerning those archaeological sites impacted by the original Project design (see Appendix B). Subsequent to the above-described Project design change and per MOE requirements [3], MTCS was duly notified of the design change and the details thereof. Pursuant to follow-up Stage 2 archaeological assessment and reporting to said regulatory body and its review of the additional reporting provided, the MTCS has determined that the Project design change has been addressed by this additional Stage 2 archaeological assessment.

#### Natural Heritage

A Natural Heritage review of the natural features within 120 m of the Project design change was conducted and concluded that no negative impact on natural heritage features is anticipated as a result of this change.

MNR had previously issued a written letter confirming that the Natural Heritage Features within 120 m of the original Project Location have been adequately studied and effectively addressed through proposed mitigation measures [6] (see Appendix B). Subsequent to the above-described Project design change and as per MOE requirements [3], MNR has been duly notified of the design change and the details thereof. Pursuant to follow-up discussions with the said regulatory body and its review of the documentation provided, the MNR has determined that the Project design change is not expected to alter the conclusions drawn in the previously conducted Natural Heritage Assessment [7].

# **3.16** Design Change 16- Addition of approximately 5 acres to the Project substation and Operations and Maintenance (O&M) area

#### **Description of Change**

An additional 5 acres of land has been added to the proposed substation and O& M area. The additional land is added directly south of the previously proposed substation and O&M location.

Figure 3-15 below shows a screenshot of this design change.



Figure 3-16: Design Change 16

## **Rationale for Change**

In consultation with the construction team it was agreed that a larger area should be permitted as a contingency to ensure sufficient area for the construction of the Project substation and O&M building.

Specific to the Noise Impact Assessment (NIA), because the proposed location of the transformer within this parcel has not changed, this change does not have a negative effect on points of reception identified by the NIA, which is available as part of the final REA submission package.

## Archaeological Assessment

A Stage 2 archaeological study of the Project design change was conducted [5] and concluded that no negative impact on archaeological resources is anticipated as a result of this change. A copy of this report will be included as part of the complete REA Application Package.

MTCS had previously issued a written letter [4] informing the MOE that the MTCS was satisfied with the archaeological recommendations made during Stage 1 and Stage 2 archaeological assessments concerning those archaeological sites impacted by the original Project design (see Appendix B). Subsequent to the above-described Project design change and per MOE requirements [3], MTCS was duly notified of the design change and the details thereof. Pursuant to follow-up Stage 2 archaeological assessment and reporting to said regulatory body and its review of the additional reporting provided, the MTCS has determined that the Project design change has been addressed by this additional Stage 2 archaeological assessment.

## Natural Heritage

A Natural Heritage review of the natural features within 120 m of the Project design change identified was conducted and concluded that no negative impact on natural heritage features is anticipated as a result of this change.



MNR had previously issued a written letter confirming that the Natural Heritage Features within 120 m of the original Project Location have been adequately studied and effectively addressed through proposed mitigation measures [6] (see Appendix B). Subsequent to the above-described Project design change and as per MOE requirements [3], MNR has been duly notified of the design change and the details thereof. Pursuant to follow-up discussions with the said regulatory body and its review of the documentation provided, the MNR has determined that the Project design change is not expected to alter the conclusions drawn in the previously conducted Natural Heritage Assessment [7].

## 4 STANDARDIZATION OF TURBINE DISTURBANCE AREAS

For all turbine locations, disturbance areas for construction purposes were standardized at an area of 121 m x 121 m (14,641 m<sup>2</sup>). Previously, disturbance areas ranged from 9,100 m<sup>2</sup> to 17,400 m<sup>2</sup>. This change was done in consultation with the construction team. The additional area is minimal in comparison to the original proposed disturbance area design and will be reduced following construction in accordance with the details outlined in the Construction Plan Report.

Specific to the noise impact assessment, this change does not have a negative effect on points of reception identified by the Noise Impact Assessment, which is available as part of the final REA submission package.

## Archaeological Assessment

A Stage 2 archaeological study of the Project design change was conducted [5] and concluded that no negative impact on archaeological resources is anticipated as a result of this change. A copy of this report will be included as part of the complete REA Application Package.

MTCS had previously issued a written letter [4] informing the MOE that the MTCS was satisfied with the archaeological recommendations made during Stage 1 and Stage 2 archaeological assessments concerning those archaeological sites impacted by the original Project design (see Appendix B). Subsequent to the above-described Project design change and per MOE requirements [3], MTCS was duly notified of the design change and the details thereof. Pursuant to follow-up Stage 2 archaeological assessment and reporting to said regulatory body and its review of the additional reporting provided, the MTCS has determined that the Project design change has been addressed by this additional Stage 2 archaeological assessment.

## Natural Heritage

A Natural Heritage review of the natural features within 120 m of the Project design change was conducted and concluded that no negative impact on natural heritage features is anticipated as a result of this change.

MNR had previously issued a written letter confirming that the Natural Heritage Features within 120 m of the original Project Location have been adequately studied and effectively addressed through proposed mitigation measures [6] (see Appendix B). Subsequent to the above-described Project design change and as per MOE requirements [3], MNR has been duly notified of the design change and the details thereof. Pursuant to follow-up discussions with the said regulatory body and its review of the documentation



provided, the MNR has determined that the Project design change is not expected to alter the conclusions drawn in the previously conducted Natural Heritage Assessment [7].

# 5 NOISE IMPACT ASESSMENT

Subsequent to the submission of the Noise Impact Assessment dated January 2012, provided for public review and consultation, NextEra has received updated technical specifications for the GE 1.6-100 turbine with a lower predicted sound output level. The noise model was re-run using the updated specifications, which can be found in Appendix E of the Noise Impact Assessment (July 2012).

Since the Manufacturer's Guaranteed sound levels are lower this change does not have a negative effect on points of reception identified by the Noise Impact Assessment, which is available as part of the final REA submission package.

# 6 CONSULTATIONS

Pursuant to the above-described Project design changes and in accordance with MOE guidelines [3], the Proponent took the necessary measures to notify the public, municipalities, and Aboriginal communities of these changes. The proposed design changes were presented to the stakeholders as part of the final public meeting. In addition to this reports being made available for public review, presentation boards (36" x 48") were used to highlight the design changes and bring them to the attention of the public. Subject matter experts were made available at the meeting to address any questions or concerns stakeholders may have regarding the Project including the potential impact of the changes presented herein. Any comments received, along with a copy of the presentation material, will be included in the consultation report as part of the complete REA application submission.

## 7 **REFERENCES**

- [1] Ontario Regulation 359/09, made under the *Environmental Protection Act*, Renewable Energy Approvals under Part 1.0 of the Act.
- [2] Ontario Regulation 521/10, made under the *Environmental Protection Act*, Renewable Energy Approvals under Part 1.0 of the Act.
- [3] Draft Technical Guide to Renewable Energy Approvals, Ontario Ministry of the Environment, July 2012.
- [4] Ministry of Tourism and Culture Letter, April 2012.
- [5] Stage 2 Archaeological Assessments, Golder Associates, 2012.
- [6] Ministry of Natural Resources Letter, April 2012.
- [7] Adelaide Wind Energy Centre, Natural Heritage Assessment, Natural Resources Solutions Inc., 2012.

# APPENDIX A ORIGINAL VS. MODIFIED PROJECT DESIGN MAPS



GL GL Garrad Hassan



GL Gurrau massan Canaaa, mc.





GL Garrad Hassan Canada, Inc.

GL GL Garrad Hassan



GL Garraa Hassan Canaaa, Inc.

GL@ GL Garrad Hassan