APPENDIX C HERITAGE ASSESSMENT ADDENDUM

From: <u>Kulpa, Paula (MTCS)</u>
To: <u>O"Neill, Nancy</u>

Cc: Constantin, Gabriel; Garcia, Andrea; Lange, Michael; Schiller, Chris (MTCS)

Subject: RE: Addendum to Heritage Report - Adelaide Wind Energy Centre

Date: August-22-13 5:03:42 PM

Nancy,

Thank you for providing us with Addendum C regarding the most recent project refinements. The addendum, dated August 19, 2013, captures the report, appendices and project refinements that have been submitted to the Ministry, along with the corresponding written comments and responses you have received from MTCS.

The ministry has reviewed the submitted documentation related to the most recent project refinements. These changes do not affect the original recommendations of the report. As a result these changes do not affect the comments provided by the ministry in the letter dated September 10, 2010. Therefore, a new MTCS written comments letter is not required.

If further changes to the project layout take place, please continue to keep our office informed.

Regards, Paula

Paula Kulpa

Team Lead – Heritage Land Use Planning Tel: 1.416.314.7137 | Fax: 1.416.314.7175 | E-mail: paula.kulpa@ontario.ca

From: O'Neill, Nancy [mailto:Nancy.O'neill@gl-garradhassan.com]

Sent: August 19, 2013 5:31 PM **To:** paula.kulpa@ontario.ca.

Cc: Constantin, Gabriel; Garcia, Andrea; Lange, Michael

Subject: Addendum to Heritage Report - Adelaide Wind Energy Centre

Hi Paula, alas, please see the attached addendum to the Heritage report for the Adelaide Wind Energy Centre. Generally speaking parts of the transmission line are proposed to move onto private land out of the ROW at the request of the municipality, additionally T30 is being proposed to move further north to avoid interference with a municipal drain. All properties in question had been previously considered for protected properties or having cultural heritage or interests as summarized in the attached.

Please feel free to contact me with any questions.

Look forward to hearing from you.

Sincerely,

Nancy O'Neill

Team Leader Environmental and Permitting Services GL Garrad Hassan 19 Carmody Lane, Uxbridge, ON, L9P 1A5, Canada Tel: +1 416 801 6822 Fax: +1 514 272 0410 www.gl-garradhassan.com

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From: <u>Kulpa, Paula (MTCS)</u>
To: <u>Constantin, Gabriel</u>

Cc: Garcia, Andrea; Nancy.O"neill@nexteraenergy.com; Lange, Michael (MICHAEL.LANGE@nexteraenergy.com);

Schiller, Chris (MTCS)

Subject: RE: Addendum to Heritage Report - Adelaide Wind Energy Centre

Date: January-10-14 11:53:09 AM

Importance: High

Subject: Heritage Assessment - Addendum D

Project: Adelaide Wind Farm

Location: Adelaide-Metcalfe, Middlesex

OPA Reference No.: FIT-FZEYQNB

MTCS File No.: 39EA022

Gabriel.

Thank you for providing us with Addendum D regarding the most recent project refinements to the above mentioned project. The addendum, dated January 8, 2014, captures the report, appendices and project refinements that have been submitted to the Ministry, along with the corresponding written comments and responses you have received from MTCS.

The ministry has reviewed the submitted documentation related to the most recent project refinements. These changes do not affect the original recommendations of the report. As a result these changes do not affect the comments provided by the ministry in the letter dated September 10, 2010. Therefore, a new MTCS written comments letter is not required.

If further changes to the project layout take place, please continue to keep our office informed.

Regards, Paula

Paula Kulpa

Team Lead – Heritage Land Use Planning

Tel: 1.416.314.7137 | Fax: 1.416.314.7175 | E-mail: paula.kulpa@ontario.ca

From: Constantin, Gabriel [mailto:gabriel.constantin@dnvgl.com]

Sent: January 8, 2014 4:52 PM

To: Kulpa, Paula (MTCS)

Cc: Garcia, Andrea; Nancy.O'neill@nexteraenergy.com; Lange, Michael

(MICHAEL.LANGE@nexteraenergy.com)

Subject: Addendum to Heritage Report - Adelaide Wind Energy Centre

Hi Paula,

Please see the attached addendum to the Heritage report for the Adelaide Wind Energy Centre (Addendum D). The Ontario Ministry of Transportation (MTO) requested modifications to the Project layout to avoid the currently permitted collection route crossing of Highway 402 along Kerwood Road. An alternate collection route crossing is proposed that extends from turbine 22 to the right-of-way (ROW) on the north side of Highway 402

and extends west along the ROW to Kerwood Road. All properties in question had been previously considered for protected properties or having cultural heritage or interests as summarized in the attached.

Please feel free to contact me with any questions.

Look forward to hearing from you.

Sincerely,

Gabriel Constantin

Project Analyst, Environmental and Permitting Services DNV GL - Energy

E-mail gabriel.constantin@dnvgl.com Mobile +1 416 320-4636 www.dnvgl.com | LinkedIn



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TECHNICAL NOTE

Title	Adelaide Wind Energy Centre – Addendum C, Heritage Assessment				
Client	NextEra Energy Canada, ULC				
Contact	Ben Greenhouse				
Document No.	2013-1009-CAMO-T-02				
Issue	A				
Classification	Client's Discretion				
Author	N. O'Blenes				
Checked	G. Constantin				
Approved	E. Crivella				

History

Issue	Date	Summary
A	19 August 2013	Original release

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1 INTRODUCTION

The Adelaide Wind Energy Centre (the "Project") was previously being developed by Air Energy TCI Inc., the North American subsidiary of TCI Renewables Ltd. The name of the Project at that time was the Adelaide Wind Farm. The Project has been acquired by Kerwood Wind, Inc. and is now being developed as the Adelaide Wind Energy Centre 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. was awarded a Feed-in-Tariff (FIT) Contract for this Project in July 2011 and the Project received a REA from the Ministry of the Environment (MOE) on 1 August 2013 [3]. Kerwood Wind, Inc. is a wholly-owned subsidiary of NextEra Energy Canada ULC (NextEra). The parent company of NextEra Energy Canada ULC is NextEra Energy Resources, LLC. GL Garrad Hassan Canada Inc. a GL Group member operating under the GL Garrad Hassan brand (hereafter "GL GH") has been retained by NextEra Energy Canada, ULC to assist with the REA application process.

A Heritage Resource Assessment was completed by Golder Associates in September 2010 [4] and submitted to the Ministry of Tourism, Culture and Sport (MTCS) for acceptance; the assessment considered 40 turbine locations, their access roads, collector system, and substation. An MTCS confirmation letter was provided to Mr. Thomas Bird (NextEra Energy Canada, ULC) in September 2010[5] for this assessment. Following issuance of the MTCS confirmation letter, the study area for the proposed development changed, namely by adding a transmission corridor, and the turbine layout was slightly modified. An addendum to the September 2010 report was submitted to the MTCS [6]on 21 March 2012 highlighting the changes and corresponding studies. Correspondence was received from the MTCS on 5 April 2012 [7]. A further addendum, Addendum B [8], was issued on 10 August 2012 to the MTCS for consideration to address the movement of 2 turbine locations, the Point of Interconnect substation relocation and a transmission line movement onto private land as a result of stakeholder consultation. An email of 13 August 2012 [9] was provided to Mr. Thomas Bird in response to this assessment.

As a result of stakeholder requests, sections of the transmission line are proposed to be relocated to private easements. For comparative purposes, the extent of the Project component adjustments is summarized in tabular and map formats in Table 1 and Appendix A, respectively, for MTCS' review. Structures A and B as presented on the comparison mapping correlate directly with Appendix A and Appendix B of the 2010 Golder report [4].

Table 1: Project layout comparison: 2010-2013

2011 Layout Turbine/ID	2010 Layout Turbine/ID	2011 Distance Moved [m]	2012 Distance Moved[m]	2013 Distance Moved [m]	Comments	
1	2	20.0			turbine only 2011	
2	1	0.0	62.0		turbine only 2012	
3	3A	42.1			turbine only 2011	
4	4A	24.0			turbine only 2012	
5	5	0.0	0			
6	38	180.0			turbine and access road 2011	
7	7	11.0				
8	6	28.0			turbine only 2011	
9	8	40.0			turbine only 2011	

2011 Layout Turbine/ID	2010 Layout Turbine/ID	2011 Distance Moved [m]	2012 Distance Moved[m]	2013 Distance Moved [m]	Comments
10	9	42.0			turbine only 2010
11	11	31.0			turbine only 2010
12	10	0.0			
13	33A	51.4			turbine 2010 and collection 2011
14	12	0.0	195		collection 2012 access road 2012
15	13	0.0			collection only 2010
16	16	18.0			collection only 2011
17	18	0.0			
18	19	0.0			
19	15	11.0			turbine only 2011
20	21A	20.0			turbine only 2011
21	20	28.0			turbine and collection 2011
22	22	0.0			
23	24	19.3			turbine only 2011
N/A	27	N/A			turbine removed from revised layout 2011
24	29	166.3	770		turbine and collection 2011, collection 2012
25	31	26.0	770		turbine 2011 and collection 2012
26	40A	23.2	28		collection 2012
27	34	0.0	24		
N/A	35	N/A			turbine removed from revised layout 2011
28	36	0.0			collection only 2010
29	37	0.0			collection only 2010
30	39	9.0			turbine only 2010, access road to met removed 2011
31	14	0.0			
32	17	0.0			
33	23A	30.6	128		turbine 2010, access road and collection 2011
34	25A	0.3			
35	26A	0.3	5		turbine only 2012
36	28	0.0			collection only 2010
37	30	18.0			
38	32	100.0			turbine 2010, access road and collection 2011
Transmission Route	NA	New		<28	North and east of wind energy centre location approximately 24 km, refer to Figure 1 for details 2011. Sections moved into private easements up to 28 m east or west of 2011 position
Point of Interconnect	NA	New			northeast of wind energy centre, refer to Figure 1 and Table 1 for details
Adelaide	NA	New			Northwest corner of wind energy

2011 Layout Turbine/ID	2010 Layout Turbine/ID	2011 Distance Moved [m]	2012 Distance Moved[m]	2013 Distance Moved [m]	Comments
Substation					centre study area, refer to Figure 1 and Table 1 for details.
Switchyard	NA	New			Approximately 11.5 km north of the wind energy centre

Table 2: Transmission route coordinates

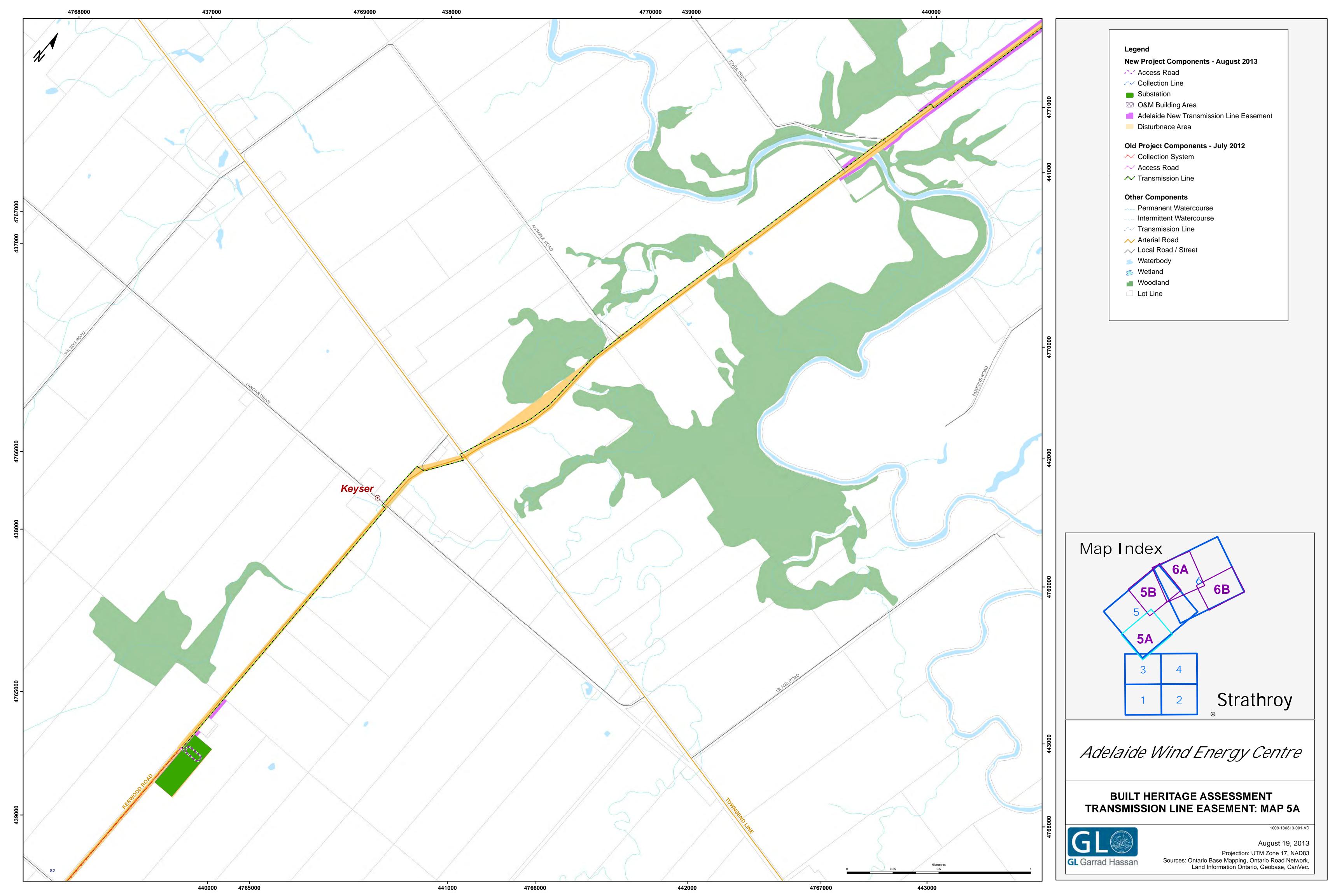
Site	Easting	Northing
Adelaide Substation	439495	4765334
Intersection Kerwood and Nairn Roads	441680	4776525
Parkhill TS (point of interconnection)	452869	4773932
Switchyard	441374	4775877

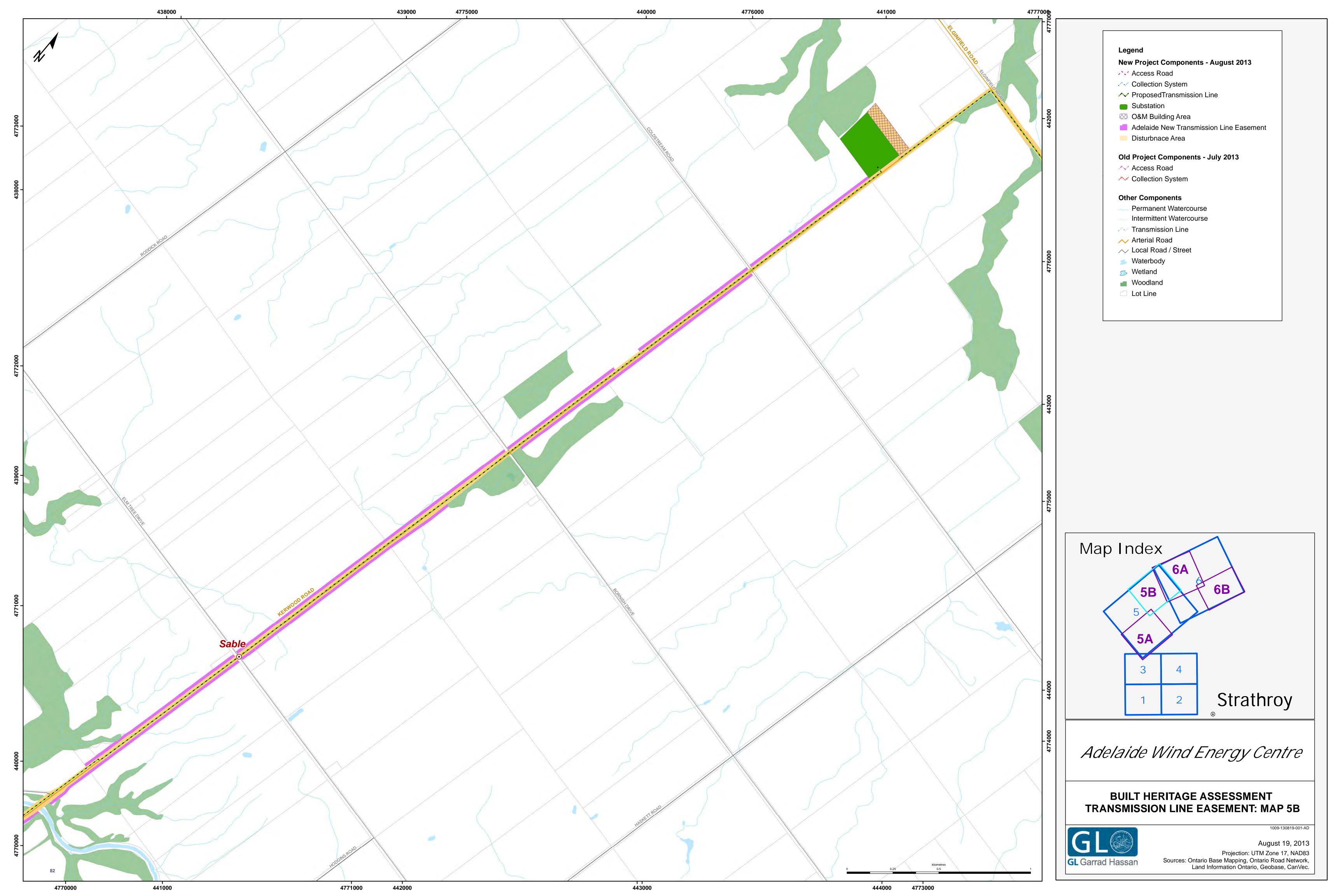
2 RESULTS

In summary, the changes made to the Project layout as presented in Table 1, 2013 and Appendix A have been considered by the GL Garrad Hassan (GL GH) Addendum [6], 21 March 2012, GL GH Addendum B, 10 August 2012 [8] and by the Golder 2010 report [4]. The proposed transmission line route has remained within previously studied areas and therefore has been evaluated accordingly for potential impact on cultural heritage features. In conclusion, the revised component locations for the Project do not directly or indirectly impact any protected properties or potential cultural heritage features of significance or interest.

3 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] Ministry of the Environment, Renewable Energy Approval letter (8980-95RSLP) Adelaide Wind Energy Centre, 1 August 2013
- [4] Golder Associates, Heritage Assessment, Report Number 07-1112-0151-1800-R02, September 2010
- [5] Ministry of Tourism and Culture, DPR File No. 39EA022, 10 September 2010
- [6] GL Garrad Hassan, Adelaide Wind Energy Centre, Addendum, Heritage Assessment, 21 March 2012
- [7] Ministry of Tourism, Culture and Sport, Email Laura Hatcher, Heritage Planner, 5 April 2012
- [8] GL Garrad Hassan, Adelaide Wind Energy Centre, Addendum B, Heritage Assessment, 10 August 2012
- [9] Ministry of Tourism, Culture and Sport, Email Laura Hatcher, Heritage Planner, 13 August 2012





GL Garrad Hassan



TECHNICAL NOTE

Title	Adelaide Wind Energy Centre – Addendum D, Heritage Assessment
Client	NextEra Energy Canada, ULC
Contact	Ben Greenhouse
Document No.	1009-CAOT-T-04
Issue	A
Classification	Client's Discretion
Author	D. Boudreau
Checked	G. Constantin
Approved	E. Crivella

History

Issue	Date	Summary
А	8 January 2014	Original release

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1 INTRODUCTION

The Adelaide Wind Energy Centre (the "Project") previously had been developed by Air Energy TCI Inc., the North American subsidiary of TCI Renewables Ltd. The name of the Project at that time was the Adelaide Wind Farm. The Project has been acquired by Kerwood Wind, Inc. and is now being developed as the Adelaide Wind Energy Centre 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 *Ontario Regulation 521/10* [2]. Kerwood Wind, Inc. was awarded a Feed-in-Tariff (FIT) Contract for the Project in July 2011 and the Project received a REA from the Ministry of the Environment (MOE) on 1 August 2013 [3]. Kerwood Wind, Inc. is a wholly-owned subsidiary of NextEra Energy Canada ULC (NextEra). The parent company of NextEra Energy Canada ULC is NextEra Energy Resources, LLC. GL Garrad Hassan Canada, Inc. a GL Group member operating under the GL Garrad Hassan brand (hereafter "GL GH") has been retained by NextEra Energy Canada, ULC to assist with the REA application process.

A Heritage Resource Assessment (HRA) was completed for the Project in September 2010 [4] and submitted to the Ministry of Tourism, Culture and Sport (MTCS) for acceptance; the assessment considered 40 turbine locations, access roads, collection system, and substation. A confirmation letter from the MTCS was provided to Kerwood in September 2010 [5]. Following the issuance of the MTCS confirmation letter, the Project Study Area was revised with the addition of a transmission corridor and the alteration of the turbine layout. Addendum A to the September 2010 HRA was submitted to the MTCS on 21 March 2012 [6]. The addendum highlighted the proposed Project changes and corresponding studies. Correspondence from the MTCS was received on 5 April 2012 [7].

Addendum B to the September 2010 HRA was submitted to the MTCS on 10 August 2012 to address the relocation of two turbines, the Point of Interconnect (POI), substation relocation, and the transmission line relocation onto private lands as a result of stakeholder consultation [8]. Correspondence from the MTCS was received on 13 August 2012 [9].

A more detailed engineering review of the Project layout determined that the relocation of turbine 30 would be required to avoid interference with a municipal drain. Additionally, as a result of stakeholder requests, sections of the transmission line were proposed to be relocated to private easements. As a result of the proposed changes, Addendum C to the September 2010 HRA was submitted to the MTCS on 19 August 2013 [10]. Correspondence from the MTCS was received on 22 August 2013 [11].

Subsequently, the Ontario Ministry of Transportation (MTO) requested modifications to the Project layout to avoid the currently permitted collection route crossing of Highway 402 along Kerwood Road. An alternate collection route crossing is proposed that extends from turbine 22 to the right-of-way (ROW) on the north side of Highway 402 and extends west along the ROW to Kerwood Road. The collection route is proposed to be horizontally directionally drilled beneath Highway 402. For comparative purposes, the extent of the Project component adjustment is summarized in tabular and map format in Table 1-1 and Appendix A. Structures A and B, as presented on the comparison mapping, correlate directly with Appendix A and Appendix B of the 2010 Golder report [4].

Table 1-1: Project layout comparison: 2010-2013

2011 Layout Turbine/ID	2010 Layout Turbine/ID	2011 Distance Moved [m]	2012 Distance Moved[m]	August 2013 Distance Moved [m]	December 2013 Distance Moved [m]	Comments
1	2	20.0				turbine only 2011
2	1	0.0	62.0			turbine only 2012
3	3A	42.1				turbine only 2011
4	4A	24.0				turbine only 2012
5	5	0.0	0			
6	38	180.0				turbine and access road 2011
7	7	11.0				
8	6	28.0				turbine only 2011
9	8	40.0				turbine only 2011
10	9	42.0				turbine only 2010
11	11	31.0				turbine only 2010
12	10	0.0				
13	33A	51.4				turbine 2010 and collection 2011
14	12	0.0	195			collection 2012 access road 2012
15	13	0.0				collection only 2010
16	16	18.0				collection only 2011
17	18	0.0				
18	19	0.0				
19	15	11.0				turbine only 2011
20	21A	20.0				turbine only 2011
21	20	28.0				turbine and collection 2011
22	22	0.0				
23	24	19.3				turbine only 2011
N/A	27	N/A				turbine removed from revised layout 2011
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27	34	0.0	24			
N/A	35	N/A				turbine removed from revised layout 2011
28	36	0.0				collection only 2010
29	37	0.0				collection only 2010
30	39	9.0		42		turbine only 2010, access road to met removed 2011, move to avoid municipal drain 2013.
31	14	0.0				
32	17	0.0				
33	23A	30.6	128			turbine 2010, access road and collection 2011
34	25A	0.3				

2011 Layout Turbine/ID	2010 Layout Turbine/ID	2011 Distance Moved [m]	2012 Distance Moved[m]	August 2013 Distance Moved [m]	December 2013 Distance Moved [m]	Comments
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36	28	0.0				collection only 2010
37	30	18.0				
38	32	100.0				turbine 2010, access road and collection 2011
Transmission Route	NA	New		< 28		north and east of wind energy centre location approximately 24 km, refer to Figure 1 for details 2011. Sections moved into private easements up to 28 m east or west of 2011 position.
Point of Interconnect	NA	New				northeast of wind energy centre, for details refer to Figure 1 and Table 2 of GL GH Addendum [6], 21 March 2012.
Adelaide Substation	NA	New				northwest corner of wind energy centre study area, for details refer to Figure 1 and Table 2 of GL GH Addendum [6], 21 March 2012.
Switchyard	NA	New				approximately 11.5 km north of the wind energy centre
Collection Route					the addition of 1.2 km	approximately 1.2 km of additional collection route proposed within disturbance area on the south side of Highway 402 between the highway and Turbine No. 22, directionally drilled beneath Highway 402, and within the ROW along Highway 402 to Kerwood Road.

2 RESULTS

In summary, the changes made to the Project layout as presented in Table 1-1 and Appendix A have been considered by the GL GH Addendum [6], 21 March 2012, GL GH Addendum B, 10 August 2012 [8] and by the Golder 2010 report [4]. The alternative collection route has remained within previously studied areas and therefore has been evaluated accordingly for potential impact on cultural heritage features. In conclusion, the revised component location for the Project do not directly or indirectly impact any protected properties or potential cultural heritage features of significance or interest.

3 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] Ministry of the Environment, Renewable Energy Approval letter (8980-95RSLP) Adelaide Wind Energy Centre, 1 August 2013.
- [4] Golder Associates, Heritage Assessment, Report Number 07-1112-0151-1800-R02, September 2010.
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- [9] Ministry of Tourism, Culture and Sport, Email Laura Hatcher, Heritage Planner, 13 August 2012.
- [10] GL Garrad Hassan, Adelaide Wind Energy Centre, Addendum C, Heritage Assessment, 19 August 2013.
- [11] Ministry of Tourism, Culture and Sport, Email Paula Kulpa, Heritage Planner, 19 August 2013.

APPENDIX A COMPARISON MAPPING