Grand Renewable Solar Park Project

FINAL DESIGN AMENDMENT REPORT

JULY 2013

DILLON CONSULTING

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1. Introduction

On June 15, 2012, Grand Renewable Solar LP/ Grand Renewable Solar GP Inc. was issued a Renewable Energy Approval (REA) to develop and operate a 100-megawatt (MW) solar photovoltaic project to be known as the Grand Renewable Solar Park Project (REA Number 9560-8UJJXS; see **Appendix A**). This project, together with the 148.6 MW wind project known as the Grand Renewable Wind Project, comprise the Grand Renewable Energy Park (GREP). The solar and wind projects will jointly own and share a transformer substation, an Operations and Maintenance building and a transmission line. At this time, Grand Renewable Solar LP/ Grand Renewable Solar GP Inc. is seeking a minor amendment to the REA issued for the Grand Renewable Solar Project.

The Grand Renewable Solar Project is located within Haldimand County, Ontario, north of the Lake Erie shoreline and west of the Grand River. The solar facility is generally bounded by Mount Olivet Road to the west, Sutor Road to the East, Meadows Road to the north and Haldimand Road 20 to the south.[1]

The REA application for the GREP was submitted to the Ontario Ministry of the Environment (MOE) in October 2011 in accordance with the requirements of *Ontario Regulation 359/09*.[2] Although the REA documents submitted as part of the application cover requirements for all aspects of the GREP, the REA issued from the Ministry of the Environment to which this minor amendment applies is based on the solar portion of the project only and does not affect the wind project or the jointly owned portions of both projects. None of the content of this REA Amendment Report is intended to include information on the wind project or the jointly owned portions related to the project substation, Operations and Maintenance building or transmission line, except insofar as the equipment used in these jointly owned portions contributes to the total noise from the solar portion of the project.

[1] Note that a small portion of the facility will be installed south of Haldimand Road 20, as shown in **Appendix B**.

[2] It should be noted that the Proposal to Engage for this project was issued prior to January 1, 2011, and as such, the proponent is permitted to continue under the 2009/2010 pre-submission rules. For clarity, this report has been prepared in accordance with the 2011 pre-submission rules and fulfills the requirements of *Ontario Regulation 359/09*, as amended on November 2, 2012.

2. Overview of the Minor Amendment

The basis for this minor amendment is the availability of more efficient equipment that allows for the reduction of the number inverter locations, each consisting of two DC to AC power inverters and a step up transformer. Based on this, detailed engineering designs for the Grand Renewable Solar Project have been undertaken and the proponent identified the need to amend the original REA. Through consultation with the MOE in May 2013, it is expected that the proposed modification detailed within this amendment report are insignificant in nature and represent a reduction in overall environmental effects of the project (see **Appendix C** for agency correspondence). As such, the proposed changes constitute a minor amendment.

If at any time the proposed amendments are not accepted by the MOE, it is the proponent's intention to construct and operate the Grand Renewable Solar Project in accordance with the original REA issued on June 15, 2012 (REA Number 9560-8UJJXS; see **Appendix A**).

To review the preliminary design and original REA submission made to the MOE, please visit: http://www.samsungrenewableenergy.ca/haldimand. This REA Amendment Report focuses on the following proposed changes:

- Reduction in the overall footprint of the project;
- Increase to the number of solar modules;
- Identification of temporary and permanent entrance gate locations; and,
- Reduction in the number of Medium Voltage Stations and transformers from 100 to 65, resulting in a revised Noise Study Report.

3. Proponent Contact Information

Should there be any questions about the minor amendments proposed for the Grand Renewable Solar Project, please contact:

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Grand Renewable Solar LP
181 University Ave., Suite 300
Toronto, ON M5H 3M7
Tel: 416-975-8800 Ext. 601 (Office)
Tel: 416-300-1088 (Cell)
Fax: 416-975-8900
Email: doxtoby@carbonfreetechnology.com

4. Project Size and Layout

The nameplate capacity of the project remains at up to 100 MW alternating current (AC), as specified in the REA for this project. However, the amount of direct current (DC) energy produced has increased from 120 MW DC to 130 MW DC. To facilitate this change, the number of solar photovoltaic (PV) panels has been adjusted from 425,000 panels to approximately 440,000 – 450,000 panels. Although this represents an increase in the number of panels from the original REA submission, the row spacing has been reduced and no additional land is required to accommodate the additional panels.

Due to an improved system layout, the size of the project location (e.g., area within the fence line) has been reduced from 298.06 hectares (736.52 acres) to 274.37 hectares (677.98 acres). Specifically, the perimeter fence line has been reduced in the northwest corner of the project location (i.e., is set back further from Meadows Road), and has been reduced in the southern portion of the project location by reconfiguring the panel layout south of Haldimand Road 20. A comparison of the preliminary design project location boundary and final design project location boundary is provided in **Appendix B**. The placement of berms around portions of the project location, as committed to in the original REA submission, has not been changed.

In addition to the overall project location footprint reduction, there will be an associated reduction in the amount of internal access/maintenance roads required and the amount of cabling required. The *Construction Plan Report* submitted as part of the original REA application indicated an anticipated 40 km of internal access/maintenance roads. With the reduction in Medium Voltage Stations and improved

productivity and layout of the solar facility, it is anticipated that only 25 km of internal access/ maintenance roads will be required.

4.1 Ministry of Natural Resources

This reduction in the overall footprint of the project has been reviewed with the Ministry of Natural Resources (MNR) at the request of the MOE. A Natural Heritage Assessment (NHA) Amendment Report was submitted to the MNR on June 27, 2013. The MNR responded with a letter on July 3, 2013 which confirmed that the proposed changes continue to meet the NHA requirements of Ontario Regulation 359/09. Copies of the NHA Amendment Report, the original June 30, 2011 confirmation letter and subsequent July 3, 2013 addendum letter to the confirmation letter are included as part of **Appendix C**.

4.2 Ministry of Tourism, Culture and Sport

The reduction in the project area does not require amendments to either the Cultural Heritage or Archaeological Assessments completed and reviewed by the Ministry of Tourism, Culture and Sport. Correspondence related to direction from the MOE and the MNR are included in **Appendix C**.

5. Entrance Gates

Within the *Construction Plan Report* submitted to the MOE in support of the REA, the locations for the entrance gates to be used during construction and operation of this project were not specified. For clarity, this REA Amendment Report includes the locations of both "permanent" (i.e., will remain after construction during operations) entrance gates along Wilson Road and around the perimeter of the project, and the "temporary" entrance gates that will be removed once construction of the facility is complete (see **Appendix B**). Permanent entrance gates have been located with consideration to participating landowners to the project. The temporary access gates are located off of Haldimand Road 20 and Sutor Road. These temporary entrance gates have been located strategically in an effort to reduce the overall transportation of materials and equipment through the project location and to construct the project in an efficient manner. The permanent access gates to be located off of Wilson Road are intended only for the movement of equipment and vehicles across Wilson Road. As Wilson Road is currently an unopened road allowance, there are no plans to upgrade this road to municipal standards and only the portion of the road between the east and west gates will be crossed.

6. Medium Voltage Stations

After a review of currently available equipment, it has been decided that a 1000 volt DC Medium Voltage Station housing two SMA SC 800CP-CA inverters will be used rather than the SMA Sunny Central 500HE-US Medium Voltage Station as indicated in the *Design and Operations Report* and *Noise Assessment Report* originally submitted to the MOE. The *Construction Plan Report* had initially indicated that 100 Medium Voltage Stations would be required; however the updated project layout only requires 65 Medium Voltage Stations. The increase in the voltage of the DC collector system to 1000 V from 600 V and the increase in the size of the inverters have resulted in a reduction in the number of medium voltage stations required at the 100 MWac Solar site. As a result of the project size changes discussed above, the locations of the Medium Voltage Stations have also changed. Please see **Appendix D** for a table of updated UTM coordinates of each Medium Voltage Station. It is not anticipated that the change in the location of the medium voltage stations will change the way the project is visually perceived by neighbouring residences. The proponent is committed to installing the berm to mitigate visual impacts of the project, as outlined in the original REA reporting.

Based on the reduction in the number of Medium Voltage Stations and their locations, an updated *Noise Assessment Report* has been prepared and is discussed in further detail in **Section 7.1**. Specifications for the equipment related to the Medium Voltage Stations have been included in the updated *Noise Assessment Report* provided in **Appendix E**.

7. Supporting Documentation

7.1 Noise Assessment Report

The proponent has prepared a final design *Noise Assessment Report* (Zephyr North, July 8, 2013), as included in **Appendix E**, based on the amendments discussed above. As shown by the comparison figure in **Appendix** B, the originally submitted 40 dBA noise contour compared to the revised final 40 dBA noise contour shows the overall 40 dBA noise contour footprint is reduced by using the amended locations of the 65 Medium Voltage Stations. The final design *Noise Assessment Report* concludes that the sound from the Grand Renewable Solar Park Project will meet the 40 dBA requirements from the MOE, and that no mitigation measures are recommended.

8. Environmental Effects

There are no additional potential environmental effects as a result of the proposed minor amendments that were not previously anticipated in the *Project Description Report*, *Design and Operations Report*, *Construction Plan Report, Natural Heritage Assessment Reports, Water Assessment and Water Body Report* and *Decommissioning Plan Report* that were submitted as part of the original REA application. Mitigation measures proposed to reduce or eliminate potential negative effects to the natural and human environments are documented in the *Construction Plan Report, Design and Operations Report, Water Assessment and Water Body Report* and *Natural Heritage Assessment Reports* provided with the original application.

9. Amendments to Original REA Submission Package

Based on the original REA submission to the MOE approved on June 15, 2012, the following table outlines which reports in the original REA submission would be affected by the proposed minor changes. For each proposed change, the report and section(s) affected are listed where the proposed changes as outlined in this REA Amendment Report would replace the text in the original report where the details are related to the Grand Renewable Solar Project. Changes to the *Noise Assessment Report* and the *Natural Heritage Assessment Reports* are addressed above.

Proposed Change	Report	Section Affected
Reduction in the overall footprint of the project.	Project Summary Report	2.2.2., Attachment A
	Project Description Report	1.2.2, Attachment A
	Construction Plan Report	Attachment A
	Design and Operations Report	Attachment A
	Noise Assessment Report	All sections related to Grand Renewable Solar Project have been revised; see **Appendix E** of this REA Amendment Report
	Water Assessment and Water Body Report	1.1
Increase to the number of solar modules.	Project Summary Report	Executive Summary, 1.1, 2.2.2, 2.3.2.1, Attachment A
	Project Description Report	Executive Summary, 1.1, 1.2.2, 2.3.2.1, Attachment A

Proposed Change	Report	Section Affected
	Construction Plan Report	Executive Summary, 1.0, 2.1.2.1, Attachment A
	Design and Operations Report	Executive Summary, 1.0, 3.1.2.1
	Decommissioning Plan Report	Executive Summary, 1.0, 2.2.3.2
	Noise Assessment Report	All sections related to Grand Renewable Solar Project have been revised; see **Appendix E** of this REA Amendment Report
	Water Assessment and Water Body Report	1.1
Identification of temporary and permanent entrance gate locations.	Project Summary Report	Attachment A
	Project Description Report	2.3.2.3, 2.4, Attachment A
	Construction Plan Report	2.1.2.3, 2.2.23, Attachment A
	Design and Operations Report	3.1.2.3, Attachment A
	Decommissioning Plan Report	2.2.3.2
	Noise Assessment Report	All sections related to Grand Renewable Solar Project have been revised; see **Appendix E** of this REA Amendment Report
	Water Assessment and Water Body Report	Not previously specified.
R**eduction in the number of medium voltage stations and transformers from 100 to 65.**	Project Summary Report	2.3.2.4, Attachment A
	Project Description Report	2.3.2.4, Attachment A
	Construction Plan Report	Executive Summary, 1.0, 2.1.2.1, 2.1.2.4, 2.2.10, Attachment A
	Design and Operations Report	Executive Summary, 1.1
	Decommissioning Plan Report	Executive Summary
	Noise Assessment Report	All sections related to Grand

Proposed Change	Report	Section Affected
		Renewable Solar Project have been revised; see **Appendix E** of this REA Amendment Report
	Water Assessment and Water Body Report	The number of medium voltage stations was not specified in this report
Reduction in the total length of internal access roads from 40 km to 25 km.	Project Summary Report	Executive Summary, 1.1, 2.3.2.3
	Project Description Report	Executive Summary, 1.1, 2.3.2.3
	Construction Plan Report	Executive Summary, 1.0, 2.1.2.3, 2.2.8
	Design and Operations Report	Executive Summary, 1.0. 3.1.2.3
	Decommissioning Plan Report	Executive Summary, 1.0
	Noise Assessment Report	All sections related to Grand Renewable Solar Project have been revised; see **Appendix E** of this REA Amendment Report
	Water Assessment and Water Body Report	1.1

10. Summary

The view of Grand Renewable Solar LP/ Grand Renewable Solar GP Inc. is that the above-listed amendments to the Grand Renewable Solar Project are improvements for the neighbouring residents and the environment. None of the amendments will create any new potential negative environmental effects to natural features or neighbouring residents. Mitigation measures included in the original REA submission with the preliminary design will continue to be implemented as stated.

Appendix A

REA NUMBER 9560-8UJJXS

RENEWABLE ENERGY APPROVAL

NUMBER 9560-8UJJXS
Issue Date: June 15, 2012

Grand Renewable Solar LP / Grand Renewable Solar GP Inc.
55 Standish Crt
Mississauga, Ontario
L5R 4B2

Project Location: Haldimand County, Near Haldimand Road 20
Haldimand County, Near Haldimand 20
Haldimand County,
N0A 1E0

You have applied in accordance with Section 47.4 of the Environmental Protection Act for approval to engage in a renewable energy project in respect of a Class 3 solar facility consisting of the following:

- the construction, installation, operation, use and retiring of a Class 3 solar facility with a total name plate capacity of up to approximately 100 megawatts.

For the purpose of this renewable energy approval, the following definitions apply:

1. "Acoustic Assessment Report" means the report included in the Application and entitled Grand Renewable Energy Park-Noise Assessment Report Revision 2, dated May 29, 2012 prepared by Zephyr North Ltd. and signed by Carl Brothers P.Eng., Zephyr North Ltd. and an addendum entitled Grand Renewable Energy Park — Noise Assessment Report — Revision 2 — Addendum 1 dated May 29, 2012 prepared by Zephyr North Ltd. and signed by Carl Brothers P. Eng., Zephyr North Ltd. May 29, 2012.

2. "Acoustic Audit" means an investigative procedure consisting of measurements and/or acoustic modelling of all noise sources due to the operation of the Equipment, assessed to determine compliance with the noise limits set out in this

3. "Acoustic Audit Report" means a report presenting the results of the Acoustic Audit.

4. "Acoustic Audit – Transformers and Inverters" means an investigative procedure consisting of measurements and/or acoustic modeling of the transformers and inverters, assessed to determine compliance with the Sound Power Level specification of the transformers and inverters described in the Acoustic Assessment Report;

5. "Acoustic Audit Report - Transformers and Inverters" means a report presenting the results of the Acoustic Audit - Transformers and Inverters.

6. "Acoustical Consultant" means a person currently active in the field of environmental acoustics and noise/vibration control, who is knowledgeable about Ministry noise guidelines and procedures and has a combination of formal university education, training and experience necessary to assess noise emissions from solar facilities;

7. "Act" means the *Environmental Protection Act* , R.S.O 1990, c.E.19, as amended;

8. "Adverse Effect" has the same meaning as in the Act;

9. "Application" means the application for a Renewable Energy Approval dated October 3, 2011, and signed by Jeong Tack Lee, President, Grand Renewable Solar GP Inc., on behalf of Grand Renewable Solar LP, and all supporting documentation submitted with the application, including amended documentation submitted up to the date this Approval was issued;

10. "Approval" means this Renewable Energy Approval issued in accordance with Section 47.4 of the Act, including any schedules to it;

11. "A-weighting" means the frequency weighting characteristic as specified in the International Electrotechnical Commission (IEC) Standard 61672, and intended to approximate the relative sensitivity of the normal human ear to different frequencies (pitches) of sound. It is denoted as "A";

12. "A-weighted Sound Pressure Level" means the Sound Pressure Level modified by application of an A-weighting network. It is measured in decibels, A-weighted, and denoted "dBA";

13. "Class 1 Area" means an area with an acoustical environment typical of a major population centre, where the background sound level is dominated by the activities of people, usually road traffic, often referred to as "urban hum";

14. "Class 2 Area" means an area with an acoustical environment that has qualities representative of both Class 1 and Class 3 Areas:

(a) sound levels characteristic of Class 1 during daytime (07:00 to 19:00 or to 23:00 hours);

(b) low evening and night background sound level defined by natural environment and infrequent human activity starting as early as 19:00 hours (19:00 or 23:00 to 07:00 hours);

(c) no clearly audible sound from stationary sources other than from those under impact assessment.

15. "Class 3 Area" means a rural area with an acoustical environment that is dominated by natural sounds having little or no road traffic, such as the following:

(a) a small community with less than 1000 population;

(b) agricultural area;

(c) a rural recreational area such as a cottage or a resort area; or

(d) a wilderness area.

16. "Company" means Grand Renewable Solar GP Inc., as general partner for and on behalf of Grand Renewable Solar LP, the partnership under the laws of Ontario, and includes its successors and assignees;

17. “Decibel" means a dimensionless measure of Sound Level or Sound Pressure Level, denoted as dB;

18. "Director" means a person appointed in writing by the Minister of the Environment pursuant to section 5 of the Act as a Director for the purposes of section 47.5 of the Act;

19. "District Manager" means the District Manager of the appropriate local district office of the Ministry where the Facility is geographically located;

20. "Equipment" means the one hundred (100) inverter enclosures (containing 200-500 kW inverters), one hundred (100) transformers, and one (1) 65/86/108 MVA solar transformer, identified in this Approval and as further described in the Application, to the extent approved by this Approval;

21. "Equivalent Sound Level" is the value of the constant sound level which would result in exposure to the same total A-weighted energy as would the specified time-varying sound, if the constant sound level persisted over an equal time interval. It is denoted L_{eq} and is measured in dB A-weighting (dBA);

22. "Facility" means the renewable energy generation facility, including the Equipment, as described in this Approval and as further described in the Application, to the extent approved by this Approval;

23. "Independent Acoustical Consultant" means an Acoustical Consultant who is not representing the Company and was not involved in preparing the Acoustic Assessment Report. The Independent Acoustical Consultant shall not be retained by the Acoustical Consultant involved in the noise impact assessment;

24. "Ministry" means the ministry of the government of Ontario responsible for the Act and includes all officials, employees or other persons acting on its behalf;

25. "Noise Control Measures" means measures to reduce the noise emissions from the Facility and/or Equipment including, but not limited to, barriers, silencers, acoustical louvres, hoods and acoustical treatment, described in the Acoustic Assessment Report;

26. "O. Reg. 359/09" means Ontario Regulation 359/09 "Renewable Energy Approvals under Part V.0.1 of the Act" made under the Act;

27. "Point of Reception" has the same meaning as in Publication NPC-205 or Publication NPC-232, as applicable, and is subject to the same qualifications described in those documents;

28. "Publication NPC-103" means the Ministry Publication NPC-103, "Procedures", August 1978;

29. "Publication NPC-104" means the Ministry Publication NPC-104, "Sound Level Adjustments", August 1978;

30. "Publication NPC-205" means the Ministry Publication NPC-205, "Sound Level Limits for Stationary Sources in Class 1 & 2 Areas (Urban)", October 1995;

31. "Publication NPC-232" means the Ministry Publication NPC-232, "Sound Level Limits for Stationary Sources in Class 3 Areas (Rural)", October 1995;

32. "Publication NPC-233" means the Ministry Publication NPC-233, "Information to be Submitted for Approval of Stationary Sources of Sound", October 1995;

33. "Sound Level" means the A-weighted Sound Pressure Level;

34. "Sound Level Limit" is the limiting value described in terms of the one hour A-weighted Equivalent Sound Level L_{eq};

35. "Sound Power Level" is ten times the logarithm to the base of 10 of the ratio of the sound power (Watts) of a noise source to standard reference power of 10^{-12} Watts;

36. "Sound Pressure" means the instantaneous difference between the actual pressure and the average or barometric pressure at a given location. The unit of measurement is the micro pascal (µPa);

37. "Sound Pressure Level" means twenty times the logarithm to the base 10 of the ratio of the effective pressure (µPa) of a sound to the reference pressure of 20 µPa;

38. "UTM" means Universal Transverse Mercator coordinate system.

You are hereby notified that this approval is issued to you subject to the terms and conditions outlined below:

TERMS AND CONDITIONS

A - GENERAL

A1. The Company shall construct, install, use, operate, maintain and retire the Facility in accordance with the terms and conditions of this Approval and the Application and in accordance with the following schedules attached hereto:

Schedule A - Facility Description

Schedule B - Coordinates of the Equipment and Noise Specifications

A2. Where there is a conflict between a provision of this Approval and any document submitted by the Company, the conditions in this Approval shall take precedence. Where there is a conflict between one or more of the documents submitted by the Company, the document bearing the most recent date shall take precedence.

A3. The Company shall ensure a copy of this Approval is:

(1) accessible, at all times, by Company staff operating the Facility and;

(2) submitted to the clerk of each local municipality and upper-tier municipality in which the Facility is situated.

A4. If the Company has a publicly accessible website, the Company shall ensure that the Approval and the Application are posted on the Company's publicly accessible website within five (5) business days of receiving this Approval.

A5. The Company shall, at least six (6) months prior to the anticipated retirement date of the entire Facility, or part of the Facility, review its Decommissioning Plan Report to ensure that it is still accurate. If the Company determines that the Facility cannot be decommissioned in accordance with the Decommissioning Plan Report, the Company shall provide the Director and District Manager a written description of plans for the decommissioning of the Facility.

A6. The Facility shall be retired in accordance with the Decommissioning Plan Report and any directions provided by the Director or District Manager.

A7. The Company shall, at least six (6) months prior to the anticipated retirement date of the entire Facility, or part of the Facility, contact the Ministry of Agriculture, Food and Rural Affairs to discuss plans for the decommissioning of the Facility, including the Company's objective to restore the project location to its previous agricultural capacity

A8. The Company shall provide the District Manager and the Director at least ten (10) days written notice of the following:

(1) the commencement of any construction or installation activities at the project location; and

(2) the commencement of the operation of the Facility.

B - EXPIRY OF APPROVAL

B1. Construction and installation of the Facility must be completed within three (3) years of the later of:

(1) the date this Approval is issued; or

(2) if there is a hearing or other litigation in respect of the issuance of this Approval, the date that this hearing or litigation is disposed of, including all appeals.

B2. This Approval ceases to apply in respect of any portion of the Facility not constructed or installed before the later of the dates identified in Condition No. B1.

C - NOISE PERFORMANCE LIMITS

C1. The Company shall ensure that:

(1) the Sound Levels from the Equipment, at the Points of Reception identified in the Acoustic Assessment Report, comply with the Sound Level Limit of 40 dBA as described in Publication NPC-232, subject to adjustment for tonality as described in Publication NPC-104;

(2) the Equipment is constructed and installed at either of the following locations:

(a) at the locations identified in Schedule B of this Approval; or

(b) at a location that does not vary by more than 10 metres from the locations identified in Schedule B of this Approval and provided that,

i) the Equipment will comply with Condition No. C1 (1), and

ii) all setback prohibitions established under O. Reg. 359/09 are complied with.

(3) the Equipment complies with the noise specifications set out in Schedule B of this Approval; and

(4) all of the Noise Control Measures are fully implemented prior to the commencement of the operation of the Facility.

C2. If the Company determines that some or all of the Equipment cannot be constructed in accordance with Condition No. C1 (2), prior to the construction and installation of the Equipment in question, the Company shall apply to the Director for an amendment to the terms and conditions of the Approval.

C3. Within three (3) months of the completion of the construction of the Facility, the Company shall submit to the Director a written confirmation signed by an individual who has the authority to bind the Company that the UTM coordinates of the "as constructed" Equipment comply with the requirements of Condition No. C1 (2).

D - ACOUSTIC AUDIT

D1. The Company shall carry out an Acoustic Audit - Transformers and Inverters and shall submit to the District Manager and the Director an Acoustic Audit Report – Transformers and Inverters prepared by an Independent Acoustical Consultant no later than six (6) months after the commencement of the operation of the Facility.

D2. The Company shall carry out an Acoustic Audit of the Equipment in accordance with the procedures set out in Publication NPC-103, and shall submit to the District Manager and the Director an Acoustic Audit Report prepared by an Independent Acoustical Consultant in accordance with the requirements of Publication NPC-233, no later than six (6) months after the commencement of the operation of the Facility.

E - GROUNDWATER MONITORING

E1. Prior to the construction and installation of the Facility, the Company shall develop, and implement for a minimum period of two (2) years after it is developed, a pre- and post-construction ground water monitoring program, which shall include, as a minimum, the following information:

(1) Identification of ground water monitoring wells to be established at appropriate up and down gradient boundary locations of the project location.

(2) Identification of ground water monitoring parameters, monitoring frequency, and trigger concentrations based on appropriate information as deemed necessary for the monitoring wells as described in Condition No. E1 (1).

E2. The Company shall report the summary of the results of the pre- and post-construction ground water monitoring program on an annual basis to the District Manager.

F - STORMWATER MANAGEMENT

General

F1. The Company shall employ best management practices for stormwater management and sediment and erosion control during construction, installation, use, operation, maintenance and retiring of the Facility, as described in the Application including the report entitled Grand Renewable Energy Park Stormwater Management Report, dated February 10, 2011 and signed by Scott Robertson, P. Eng., Associate, Water Resources Project Manager .

F2. The Company shall design, construct, install, use, operate, maintain and retire stormwater management works that shall cover the transformer substation area and the operation and maintenance building drainage area, for a total area of 59 hectares (ha), in accordance with any plans and specifications set out in this Approval and the Application.

F3. The stormwater management works shall include the following, all in accordance with the plans and specifications set out in the Application:

(1) a Transformer Substation area with an extended detention dry pond;

(2) an operation and maintenance building area with a constructed wetland; and

(3) a vegetated swale / ditch system to divert and control clean stormwater from entering the developed areas within the Transformer Substation and operation and maintenance building areas and to control external flows.

F4. The Company shall notify the Director prior to making any material changes to the design and specifications described in Condition F3 and the Grand Renewable Energy Park Stormwater Management Report, dated February 10, 2011 and signed by Scott Robertson, P. Eng., Associate, Water Resources Project Manager.

Operation and Maintenance

F5. The Company shall ensure that the pond/wetland design minimum liquid retention volume is maintained at all times.

F6. The Company shall maintain the permanent pool depth to 1.0m within the forebay areas and monitor the accumulation of oil within the forebay or main cell.

F7. The Company shall inspect the stormwater management works semi-annually, i.e. twice per year, and, if necessary, clean and maintain the works to prevent the excessive build-up of sediments and/or vegetation.

F8. The Company shall include the following information in the operations and maintenance manual prepared under Condition K and the written records created under Condition I:

(1) operating procedures for routine operation of the stormwater management works;

(2) the date and results of all inspection, maintenance, and cleaning activities, including an estimate of the quantity of any materials removed; and

(3) the date of each spill within the catchment area, including follow-up actions / remedial measures undertaken.

Effluent Visual Operations

F9. The Company shall ensure that the effluent from the stormwater management works is essentially free of floating and settle-able solids and does not contain oil or any other substance in amounts sufficient to create a visible film, sheen or foam on the receiving waters.

F10. The Company shall conduct semi-annual, i.e. twice per year, walking inspections to identify areas of bare soil and/or the formation of erosive gullies, remediative efforts, areas of isolated ponding or sediment build-up.

Monitoring

F11. Upon commencement of the operation of the Facility, the Company shall establish and implement a monitoring program for the stormwater management works for a minimum period of five (5) years (with the option to request that the Director reduce the frequency of monitoring after three (3) years of satisfactory performance of the stormwater management works) in accordance with the following:

(1) the Company shall take all samples and measurements for the purposes of Condition F10 (2) at a time and in a location characteristic of the quality and quantity of the effluent stream over the time period being monitored;

(2) the Company shall collect and analyze the required samples at the sampling points listed in the table below in accordance with the measurement frequency and sample type specified, for each parameter in the table, and create a written record of the monitoring results:

Surface Water Monitoring	
Sample points: § at pond/wetland inlets. § at pond/wetland effluent discharge points.	
Frequency	Quarterly, i.e. four (4) times per year, at least once for the snowmelt freshet and the remaining within 72hours after a 15mm rainfall event.
Sample Type	Grab
Parameters	Total Suspended Solids, Total Phosphorus, Dissolved Oxygen, Oil & Grease, E. Coli, pH and Temperature.

(3) the Company's methods and protocols for any sampling, analysis and recording undertaken in accordance with Condition F10 (2) shall conform, in order of precedence, to the methods and protocols specified in the following documents:

(a)The Ministry's Procedure F-10-1, "Procedures for Sampling and Analysis Requirements for Municipal and Private Sewage Treatment Works (Liquid Waste Streams Only)", as amended from time to time by more recently published editions.(b)

(b) The Ministry's publication "Protocol for the Sampling and Analysis of Industrial/Municipal Wastewater" (January 1999), ISBN 0-7778-1880-9, as amended from time to time by more recently published editions.

(c)The publication "Standard Methods for the Examination of Water and Wastewater" (21st edition), as amended from time to time by more recently published editions.

(4) The Company shall include all written records and information related to, or resulting from, the monitoring activities undertaken in accordance with Condition F10 in the written records created under Condition P.

Annual Reporting

F12. By March 31st of each calendar year, the Company shall prepare and submit to the District Manager an annual report for the previous calendar year which summarizes all of the activities undertaken and written records created in accordance with Condition F, including monitoring data collected, data analysis and interpretation of results, and inspection, operations and maintenance activities, as well as recommendations for any preventive, remediative and reactive measures needed to ensure compliance with Condition F and protection of the environment.

G - SEWAGE WORKS OF THE TRANSFORMER SUBSTATION SPILL CONTAINMENT FACILITY

G1. Prior to the construction of the transformer substation, the Company shall retain an independent Professional Engineer licensed in Ontario, and knowledgeable about electrical transformer substations and their associated sewage works, to prepare a design report on the spill containment facility for the transformer substation that shall contain the following:

(1) final design drawings and specifications of the spill containment area and associated sewage works;
(2) operation and maintenance procedures for the spill containment facility including an emergency/contingency plan; and
(3) a monitoring program, including a groundwater monitoring program if a subsurface disposal system is proposed, which shall contain at a minimum one monitoring well immediately around the spill containment works and one on the property boundary down gradient from the transformer substation.

G2. The Company shall ensure that the spill containment facility for the transformer substation meets the following requirements:

(1) the containment facility shall have an impervious concrete floor and walls sloped toward an outlet, maintaining a freeboard of 0.25 metres terminating approximately 0.30 metres above grade, with an impervious plastic liner or equivalent, and 1.0 metre layer of crushed stoned within;

(2) the containment pad shall drain to an oil control device, such as an oil/water separator, a pump-out sump, an oil absorbing material in a canister or a blind sump; and

(3) the oil control device shall be equipped with an oil detection system and appropriate sewage appurtenances as necessary (pumpout manhole, submersible pumps, level controllers, floating oil sensors, etc.).

G3. The Company shall submit the design report for the spill containment facility prepared under Condition No. G1 to the Director and shall not commence the construction of the transformer substation until the Director provides written confirmation verifying that the Director is satisfied with the proposed sewage works.

G4. The Company shall design, construct and operate the sewage works of the transformer substation spill containment facility such that the concentration of the effluent parameter named in the table below does not exceed the maximum concentration objective shown for that parameter in the effluent, and shall comply with the following requirements:

Effluent Parameters	Maximum Concentration Objective
Oil and Grease	15mg/L

(a) notify the District Manager as soon as reasonably possible of any exceedance of the maximum concentration objective set out in the table above;
(b) take immediate action to identify the cause of the exceedance; and
(c) take immediate action to prevent further exceedances.

H - WATER TAKING ACTIVITIES

H1. The Company shall not take more than 50,000 litres of water on any day by any means for any other purpose than specified in Condition H2 during the construction, installation, use, operation, maintenance and retiring of the Facility.

H2. For water takings (by tanker) for the purpose of dust suppression, equipment washing and similar activities:

(1) notwithstanding the authorized rate of water taking, this Approval limits the taking of water at any site at the project location for up to 10% of the instantaneous streamflow present on the day or days of taking. The authorized water taking rate may therefore have to be adjusted downward to remain within this 10% maximum; and

(2) prior to taking water from any site at the project location, the Company shall contact the Grand River Conservation Authority and the Long Point Conservation Authority to determine if any low water conditions have been declared and are in effect. The Company shall not take water if a Level 2 or Level 3 low water condition has been declared.

I - ARCHAEOLOGICAL RESOURCES

I1. The Company shall implement all of the recommendations, if any, for further archaeological fieldwork and for the protection of archaeological sites found in the consultant archaeologist's report included in the Application, and which the Company submitted to the Ministry of Tourism and Culture in order to comply with clause 22 (2) (b) of O. Reg. 359/09.

I2. Should any previously undocumented archaeological resources be discovered, the Company shall:

(1) cease all alteration of the area in which the resources were discovered immediately;

(2) engage a consultant archaeologist to carry out the archaeological fieldwork necessary to further assess the area and to either protect and avoid or excavate any sites in the area in accordance with the *Ontario Heritage Act* , the regulations under that act and the Ministry of Tourism and Culture's *Standards and Guidelines for Consultant Archaeologists* ; and

(3) notify the Director as soon as reasonably possible.

J - COMMUNITY LIAISON COMMITTEE

J1. Within three (3) months of receiving this Approval, the Company shall make reasonable efforts to establish a Community Liaison Committee. The Community Liaison Committee shall be a forum to exchange ideas and share concerns with interested residents and members of the public. The Community Liaison Committee shall be established by:

(1) publishing a notice in a newspaper with general circulation in each local municipality in which the project location is situated; and

(2) posting a notice on the Company's publicly accessible website, if the Company has a website;

to notify members of the public about the proposal for a Community Liaison Committee and invite residents living within a one (1) kilometer radius of the Facility that may have an interest in the Facility to participate on the Community Liaison Committee.

J2. The Company may invite other members of stakeholders to participate in the Community Liaison Committee, including, but not limited to, local municipalities, local conservation authorities, Aboriginal communities, federal or provincial agencies, and local community groups.

J3. The Community Liaison Committee shall consist of at least one Company representative who shall attend all meetings.

J4. The purpose of the Community Liaison Committee shall be to:

(1) act as a liaison facilitating two way communications between the Company and members of the public with respect to issues relating to the construction, installation, use, operation, maintenance and retirement of the Facility;

(2) provide a forum for the Company to provide regular updates on, and to discuss issues or concerns relating to, the construction, installation, use, operation, maintenance and retirement of the Facility with members of the public; and

(3) ensure that any issues or concerns resulting from the construction, installation, use, operation, maintenance and retirement of the Facility are discussed and communicated to the Company.

J5. The Community Liaison Committee shall be deemed to be established on the day the Director is provided with written notice from the Company that representative Community Liaison Committee members have been chosen and a date for a first Community Liaison Committee meeting has been set.

J6. If a Community Liaison Committee has not been established within three (3) months of receiving this Approval, the Company shall provide a written explanation to the Director as to why this has not occurred.

J7. The Company shall ensure that the Community Liaison Committee operates for a minimum period of two (2) years from the day it is established. During this two (2) year period, the Company shall ensure that the Community Liaison Committee meets a minimum of two (2) times per year. At the end of this two (2) year period, the Company shall contact the Director to discuss the continued operation of the Community Liaison Committee.

J8. The Company shall ensure that all Community Liaison Committee meetings are open to the general public.

J9. The Company shall provide administrative support for the Community Liaison Committee including, at a minimum:

(1) providing a meeting space for Community Liaison Committee meetings;

(2) providing access to resources, such as a photocopier, stationery, and office supplies, so that the Community Liaison Committee can:

(a) prepare and distribute meeting notices;

(b) record and distribute minutes of each meeting; and

(c) prepare reports about the Community Liaison Committee's activities.

J10. The Company shall submit any reports of the Community Liaison Committee to the Director and post it on the Company's publicly accessible website, if the Company has a website.

K - OPERATION AND MAINTENANCE

K1. Prior to the commencement of the operation of the Facility, the Company shall prepare a written manual for use by Company staff outlining the operating procedures and a maintenance program for the Equipment that includes as a minimum the following:

(1) routine operating and maintenance procedures in accordance with good engineering practices and as recommended by the Equipment suppliers;

(2) emergency procedures;

(3) procedures for any record keeping activities relating to operation and maintenance of the Equipment; and

(4) all appropriate measures to minimize noise emissions from the Equipment.

K2. The Company shall;

(1) update, as required, the manual described in Condition No. K1; and

(2) make the manual described in Condition No. K1 available for review by the Ministry upon request.

K3. The Company shall ensure that the Facility is operated and maintained in accordance with the Approval and the manual described in Condition No. K1.

L - RECORD CREATION AND RETENTION

L1. The Company shall create written records consisting of the following:

(1) an operations log summarizing the operation and maintenance activities of the Facility;

(2) within the operations log, a summary of routine and Ministry inspections of the Facility; and

(3) a record of any complaint alleging an Adverse Effect caused by the construction, installation, use, operation, maintenance or retirement of the Facility.

L2. A record described under Condition No. L1 (3) shall include:

(1) a description of the complaint that includes as a minimum the following:

a) the date and time the complaint was made;

b) the name, address and contact information of the person who submitted the complaint;

(2) a description of each incident to which the complaint relates that includes as a minimum the following:

a) the date and time of each incident;

b) the duration of each incident;

c) the wind speed and wind direction at the time of each incident;

d) the ID of the Equipment involved in each incident and its output at the time of each incident;

e) the location of the person who submitted the complaint at the time of each incident; and

(3) a description of the measures taken to address the cause of each incident to which the complaint relates and to prevent a similar occurrence in the future.

L3. The Company shall retain, for a minimum of five (5) years from the date of their creation, all records described in Condition No. L1, and make these records available for review by the Ministry upon request.

M- NOTIFICATION OF COMPLAINTS

M1. The Company shall notify the District Manager of each complaint within two (2) business days of the receipt of the complaint.

M2. The Company shall provide the District Manager with the written records created under Condition No. L2 within eight (8) business days of the receipt of the complaint.

M3. If the Company receives a complaint related to groundwater, the Company shall contact the District Manager within one (1) business day of the receipt of the complaint to discuss appropriate measures to manage any potential groundwater issues.

N - CHANGE OF OWNERSHIP

N1. The Company shall notify the Director in writing, and forward a copy of the notification to the District Manager, within thirty (30) days of the occurrence of any of the following changes:

(1) the ownership of the Facility;

(2) the operator of the Facility;

(3) the address of the Company;

(4) the partners, where the Company is or at any time becomes a partnership and a copy of the most recent declaration filed under the *Business Names Act* , R.S.O. 1990, c.B.17, as amended, shall be included in the notification; and

(5) the name of the corporation where the Company is or at any time becomes a corporation, other than a municipal corporation, and a copy of the most current information filed under the *Corporations Information Act* , R.S.O. 1990, c. C.39, as amended, shall be included in the notification.

O - ABORIGINAL CONSULTATION

O1. The Company shall maintain communications with interested Aboriginal communities during the construction, installation, and operation of the Facility.

O2. The Company shall fulfil all commitments made to Aboriginal communities during the construction, installation, and operation of the Facility, including but not limited to, providing the following to interested Aboriginal communities that have requested or may request it:

(1) updated non-confidential project information, including the results of monitoring activities undertaken and copies of additional archaeological assessment reports that may be prepared; and;

(2) updates on key steps in the construction, installation, and operation phases of the Facility, including notice of the commencement of construction activities at the project location.

O3. If an interested Aboriginal community requests a meeting to obtain non-confidential information relating to the construction, installation, and operation of the Facility, the Company shall use reasonable efforts to arrange and participate in such a meeting.

O4 If any archaeological resources of Aboriginal origin are found during the construction of the Facility, the Company shall:

(1) notify the Six Nations of the Grand River and the Mississaugas of the New Credit and any other Aboriginal community considered likely to be interested or which has expressed an interest in such finds; and,

(2) arrange and participate in any meeting requested by an interested Aboriginal community to discuss the archaeological find(s) and/or the use of Aboriginal archaeological liaisons.

O5. The Company shall maintain records of communication with interested Aboriginal communities and make these records available for review by the Ministry upon request.

SCHEDULE A

Facility Description

The Facility shall consist of the construction, installation, operation, use and retiring of the following:

(a) approximately 425,000 solar photovoltaic (PV) panels, consisting of one hundred (100) 1 MW transformers and two hundred (200) inverters with output capacity in AC of each inverter being 500 kW;

(b) one transformer substation consisting of a solar transformer rated at approximately 65/86/108 megavolt-ampere (MVA); and

(c) associated ancillary equipment, systems and technologies including on-site access roads, switchgear, control and monitoring equipment, and underground cabling,

all in accordance with the Application.

SCHEDULE B
Coordinates of the Equipment are listed below in UTM17-NAD83 projection:
Transformers

	Source ID	Sound Power Level (dBA)	Easting (m)	Northing (m)	Source Description
1	TR301	**85**	596,520	4,749,113	Transformer 108 MVA
2	Tr601	**58**	596,363	4,750,350	1 MW Transformer
3	Tr602	**58**	596,176	4,750,180	1 MW Transformer
4	Tr603	**58**	596,369	4,750,177	1 MW Transformer
5	Tr604	**58**	596,506	4,750,177	1 MW Transformer
6	Tr605	**58**	596,672	4,750,178	1 MW Transformer
7	Tr606	**58**	596,781	4,750,176	1 MW Transformer
8	Tr607	**58**	596,097	4,750,009	1 MW Transformer
9	Tr608	**58**	596,234	4,750,171	1 MW Transformer
10	Tr609	**58**	596,371	4,750,171	1 MW Transformer
11	Tr610	**58**	596,508	4,750,171	1 MW Transformer
12	Tr611	**58**	596,645	4,750,170	1 MW Transformer
13	Tr612	**58**	596,782	4,750,169	1 MW Transformer
14	Tr613	**58**	596,017	4,749,838	1 MW Transformer
15	Tr614	**58**	596,210	4,749,834	1 MW Transformer
16	Tr615	**58**	596,348	4,749,834	1 MW Transformer
17	Tr616	**58**	596,485	4,749,834	1 MW Transformer
18	Tr617	**58**	596,622	4,749,834	1 MW Transformer
19	Tr618	**58**	596,759	4,749,833	1 MW Transformer
20	Tr619	**58**	596,896	4,749,833	1 MW Transformer
21	Tr620	**58**	595,938	4,749,827	1 MW Transformer
22	Tr621	**58**	596,075	4,749,828	1 MW Transformer
23	Tr622	**58**	596,212	4,749,828	1 MW Transformer
24	Tr623	**58**	596,349	4,749,828	1 MW Transformer
25	Tr624	**58**	596,487	4,749,828	1 MW Transformer

SCHEDULE B
Transformers
continued

	Source ID	Sound Power Level (dBA)	Easting (m)	Northing (m)	Source Description
26	Tr625	**58**	596,624	4,749,828	1 MW Transformer
27	Tr626	**58**	596,761	4,749,827	1 MW Transformer
28	Tr627	**58**	596,898	4,749,827	1 MW Transformer
29	Tr628	**58**	595,996	4,749,657	1 MW Transformer
30	Tr629	**58**	596,133	4,749,656	1 MW Transformer
31	Tr630	**58**	596,270	4,749,656	1 MW Transformer
32	Tr631	**58**	596,122	4,749,410	1 MW Transformer
33	Tr632	**58**	596,121	4,749,399	1 MW Transformer
34	Tr633	**58**	596,192	4,749,399	1 MW Transformer
35	Tr634	**58**	596,799	4,749,656	1 MW Transformer
36	Tr635	**58**	596,936	4,749,656	1 MW Transformer
37	Tr636	**58**	596,907	4,749,159	1 MW Transformer
38	Tr637	**58**	597,044	4,749,159	1 MW Transformer
39	Tr638	**58**	596,635	4,749,153	1 MW Transformer
40	Tr639	**58**	596,772	4,749,153	1 MW Transformer
41	Tr640	**58**	596,909	4,749,153	1 MW Transformer
42	Tr641	**58**	597,046	4,749,153	1 MW Transformer
43	Tr642	**58**	597,206	4,748,987	1 MW Transformer
44	Tr643	**58**	596,294	4,748,988	1 MW Transformer
45	Tr644	**58**	596,338	4,748,812	1 MW Transformer
46	Tr645	**58**	596,409	4,748,816	1 MW Transformer
47	Tr646	**58**	596,546	4,748,816	1 MW Transformer
48	Tr647	**58**	596,683	4,748,816	1 MW Transformer
49	Tr648	**58**	596,820	4,748,816	1 MW Transformer
50	Tr649	**58**	596,613	4,748,897	1 MW Transformer
51	Tr650	**58**	597,050	4,748,987	1 MW Transformer
52	Tr651	**58**	597,187	4,748,987	1 MW Transformer
53	Tr652	**58**	596,410	4,748,810	1 MW Transformer
54	Tr653	**58**	596,547	4,748,810	1 MW Transformer
55	Tr654	**58**	596,684	4,748,810	1 MW Transformer
56	Tr655	**58**	596,821	4,748,810	1 MW Transformer

SCHEDULE B
Transformers
continued

	Source ID	Sound Power Level (dBA)	Easting (m)	Northing (m)	Source Description
57	Tr656	**58**	596,915	4,748,981	1 MW Transformer
58	Tr657	**58**	597,189	4,748,981	1 MW Transformer
59	Tr658	**58**	596,516	4,748,473	1 MW Transformer
60	Tr659	**58**	596,653	4,748,473	1 MW Transformer
61	Tr661	**58**	597,130	4,748,216	1 MW Transformer
62	Tr662	**58**	597,197	4,748,226	1 MW Transformer
63	Tr663	**58**	597,268	4,748,226	1 MW Transformer
64	Tr664	**58**	597,338	4,748,226	1 MW Transformer
65	Tr665	**58**	597,414	4,748,225	1 MW Transformer
66	Tr666	**58**	597,126	4,750,395	1 MW Transformer
67	Tr667	**58**	597,262	4,750,395	1 MW Transformer
68	Tr668	**58**	597,398	4,750,395	1 MW Transformer
69	Tr669	**58**	597,530	4,750,396	1 MW Transformer
70	Tr670	**58**	597,711	4,750,377	1 MW Transformer
71	Tr671	**58**	597,849	4,750,377	1 MW Transformer
72	Tr672	**58**	597,986	4,750,377	1 MW Transformer
73	Tr673	**58**	597,049	4,750,389	1 MW Transformer
74	Tr674	**58**	597,186	4,750,389	1 MW Transformer
75	Tr675	**58**	597,322	4,750,389	1 MW Transformer
76	Tr676	**58**	597,458	4,750,389	1 MW Transformer
77	Tr677	**58**	597,567	4,750,388	1 MW Transformer
78	Tr678	**58**	597,713	4,750,371	1 MW Transformer
79	Tr679	**58**	597,982	4,750,371	1 MW Transformer
80	Tr680	**58**	596,998	4,750,215	1 MW Transformer
81	Tr681	**58**	597,107	4,750,052	1 MW Transformer
82	Tr682	**58**	597,243	4,750,052	1 MW Transformer
83	Tr683	**58**	597,380	4,750,052	1 MW Transformer
84	Tr684	**58**	597,516	4,750,052	1 MW Transformer
85	Tr685	**58**	597,625	4,750,055	1 MW Transformer
86	Tr686	**58**	597,404	4,750,046	1 MW Transformer
87	Tr687	**58**	597,216	4,750,046	1 MW Transformer

SCHEDULE B
Transformers
continued

	Source ID	Sound Power Level (dBA)	Easting (m)	Northing (m)	Source Description
88	Tr688	**58**	597,041	4,750,043	1 MW Transformer
89	Tr689	**58**	597,269	4,749,212	1 MW Transformer
90	Tr690	**58**	597,443	4,749,211	1 MW Transformer
91	Tr691	**58**	597,730	4,749,211	1 MW Transformer
92	Tr692	**58**	597,929	4,749,212	1 MW Transformer
93	Tr693	**58**	597,323	4,749,202	1 MW Transformer
94	Tr694	**58**	597,435	4,749,205	1 MW Transformer
95	Tr695	**58**	597,571	4,749,205	1 MW Transformer
96	Tr696	**58**	597,707	4,749,205	1 MW Transformer
97	Tr697	**58**	597,843	4,749,205	1 MW Transformer
98	Tr698	**58**	597,952	4,749,204	1 MW Transformer
99	Tr699	**58**	597,476	4,748,953	1 MW Transformer
100	Tr700	**58**	597,745	4,748,953	1 MW Transformer
101	Tr701	**58**	597,542	4,748,947	1 MW Transformer

SCHEDULE B
Solar Inverters

	Source ID	Sound Power Level (dBA)	Easting (m)	Northing (m)	Source Description
1	Tr702	**71.7**	596,362	4,750,352	1 MW Enclosed Inverter
2	Tr704	**71.7**	596,175	4,750,179	1 MW Enclosed Inverter
3	Tr706	**71.7**	596,368	4,750,179	1 MW Enclosed Inverter
4	Tr708	**71.7**	596,505	4,750,179	1 MW Enclosed Inverter
5	Tr710	**71.7**	596,671	4,750,176	1 MW Enclosed Inverter
6	Tr712	**71.7**	596,780	4,750,177	1 MW Enclosed Inverter
7	Tr714	**71.7**	596,096	4,750,007	1 MW Enclosed Inverter
8	Tr716	**71.7**	596,233	4,750,169	1 MW Enclosed Inverter
9	Tr718	**71.7**	596,370	4,750,169	1 MW Enclosed Inverter
10	Tr720	**71.7**	596,507	4,750,169	1 MW Enclosed Inverter
11	Tr722	**71.7**	596,644	4,750,168	1 MW Enclosed Inverter
12	Tr724	**71.7**	596,782	4,750,168	1 MW Enclosed Inverter
13	Tr726	**71.7**	596,017	4,749,836	1 MW Enclosed Inverter
14	Tr728	**71.7**	596,210	4,749,836	1 MW Enclosed Inverter
15	Tr730	**71.7**	596,347	4,749,836	1 MW Enclosed Inverter
16	Tr732	**71.7**	596,484	4,749,836	1 MW Enclosed Inverter
17	Tr734	**71.7**	596,621	4,749,835	1 MW Enclosed Inverter
18	Tr736	**71.7**	596,758	4,749,835	1 MW Enclosed Inverter
19	Tr738	**71.7**	596,895	4,749,835	1 MW Enclosed Inverter
20	Tr740	**71.7**	595,937	4,749,825	1 MW Enclosed Inverter
21	Tr742	**71.7**	596,074	4,749,826	1 MW Enclosed Inverter
22	Tr744	**71.7**	596,212	4,749,826	1 MW Enclosed Inverter
23	Tr746	**71.7**	596,349	4,749,826	1 MW Enclosed Inverter
24	Tr748	**71.7**	596,486	4,749,826	1 MW Enclosed Inverter
25	Tr750	**71.7**	596,623	4,749,826	1 MW Enclosed Inverter
26	Tr752	**71.7**	596,760	4,749,826	1 MW Enclosed Inverter
27	Tr754	**71.7**	596,897	4,749,826	1 MW Enclosed Inverter
28	Tr756	**71.7**	595,995	4,749,655	1 MW Enclosed Inverter
29	Tr758	**71.7**	596,132	4,749,655	1 MW Enclosed Inverter
30	Tr760	**71.7**	596,270	4,749,655	1 MW Enclosed Inverter
31	Tr762	**71.7**	596,798	4,749,654	1 MW Enclosed Inverter

SCHEDULE B
Solar Inverters
continued

	Source ID	Sound Power Level (dBA)	Easting (m)	Northing (m)	Source Description
32	Tr764	**71.7**	596,936	4,749,654	1 MW Enclosed Inverter
33	Tr766	**71.7**	596,121	4,749,408	1 MW Enclosed Inverter
34	Tr768	**71.7**	596,191	4,749,397	1 MW Enclosed Inverter
35	Tr770	**71.7**	596,906	4,749,161	1 MW Enclosed Inverter
36	Tr772	**71.7**	597,044	4,749,161	1 MW Enclosed Inverter
37	Tr774	**71.7**	596,121	4,749,397	1 MW Enclosed Inverter
38	Tr776	**71.7**	596,293	4,748,986	1 MW Enclosed Inverter
39	Tr778	**71.7**	596,634	4,749,152	1 MW Enclosed Inverter
40	Tr780	**71.7**	596,771	4,749,151	1 MW Enclosed Inverter
41	Tr782	**71.7**	596,908	4,749,151	1 MW Enclosed Inverter
42	Tr784	**71.7**	597,046	4,749,151	1 MW Enclosed Inverter
43	Tr786	**71.7**	597,206	4,748,989	1 MW Enclosed Inverter
44	Tr788	**71.7**	596,337	4,748,810	1 MW Enclosed Inverter
45	Tr790	**71.7**	596,408	4,748,818	1 MW Enclosed Inverter
46	Tr792	**71.7**	596,545	4,748,818	1 MW Enclosed Inverter
47	Tr794	**71.7**	596,682	4,748,818	1 MW Enclosed Inverter
48	Tr796	**71.7**	596,819	4,748,818	1 MW Enclosed Inverter
49	Tr798	**71.7**	596,956	4,748,818	1 MW Enclosed Inverter
50	Tr800	**71.7**	597,093	4,748,818	1 MW Enclosed Inverter
51	Tr802	**71.7**	597,230	4,748,818	1 MW Enclosed Inverter
52	Tr806	**71.7**	596,409	4,748,809	1 MW Enclosed Inverter
53	Tr808	**71.7**	596,546	4,748,809	1 MW Enclosed Inverter
54	Tr810	**71.7**	596,683	4,748,808	1 MW Enclosed Inverter
55	Tr812	**71.7**	596,821	4,748,808	1 MW Enclosed Inverter
56	Tr814	**71.7**	596,958	4,748,808	1 MW Enclosed Inverter
57	Tr816	**71.7**	597,232	4,748,808	1 MW Enclosed Inverter
58	Tr818	**71.7**	596,515	4,748,475	1 MW Enclosed Inverter
59	Tr820	**71.7**	596,652	4,748,475	1 MW Enclosed Inverter
60	Tr822	**71.7**	597,129	4,748,557	1 MW Enclosed Inverter
61	Tr824	**71.7**	597,196	4,748,567	1 MW Enclosed Inverter
62	Tr826	**71.7**	597,267	4,748,567	1 MW Enclosed Inverter

SCHEDULE B
Solar Inverters
continued

	Source ID	Sound Power Level (dBA)	Easting (m)	Northing (m)	Source Description
63	Tr828	**71.7**	597,337	4,748,567	1 MW Enclosed Inverter
64	Tr830	**71.7**	597,413	4,748,223	1 MW Enclosed Inverter
65	Tr832	**71.7**	597,125	4,750,397	1 MW Enclosed Inverter
66	Tr834	**71.7**	597,261	4,750,397	1 MW Enclosed Inverter
67	Tr836	**71.7**	597,397	4,750,397	1 MW Enclosed Inverter
68	Tr838	**71.7**	597,530	4,750,398	1 MW Enclosed Inverter
69	Tr840	**71.7**	597,711	4,750,379	1 MW Enclosed Inverter
70	Tr842	**71.7**	597,848	4,750,379	1 MW Enclosed Inverter
71	Tr844	**71.7**	597,985	4,750,379	1 MW Enclosed Inverter
72	Tr846	**71.7**	597,049	4,750,388	1 MW Enclosed Inverter
73	Tr848	**71.7**	597,185	4,750,388	1 MW Enclosed Inverter
74	Tr850	**71.7**	597,321	4,750,387	1 MW Enclosed Inverter
75	Tr852	**71.7**	597,458	4,750,387	1 MW Enclosed Inverter
76	Tr854	**71.7**	597,566	4,750,386	1 MW Enclosed Inverter
77	Tr856	**71.7**	597,712	4,750,370	1 MW Enclosed Inverter
78	Tr858	**71.7**	597,982	4,750,370	1 MW Enclosed Inverter
79	Tr860	**71.7**	596,998	4,750,216	1 MW Enclosed Inverter
80	Tr862	**71.7**	597,106	4,750,054	1 MW Enclosed Inverter
81	Tr864	**71.7**	597,243	4,750,054	1 MW Enclosed Inverter
82	Tr866	**71.7**	597,379	4,750,054	1 MW Enclosed Inverter
83	Tr868	**71.7**	597,515	4,750,054	1 MW Enclosed Inverter
84	Tr870	**71.7**	597,624	4,750,053	1 MW Enclosed Inverter
85	Tr872	**71.7**	597,040	4,750,045	1 MW Enclosed Inverter
86	Tr874	**71.7**	597,215	4,750,045	1 MW Enclosed Inverter
87	Tr876	**71.7**	597,403	4,750,044	1 MW Enclosed Inverter
88	Tr878	**71.7**	597,268	4,749,214	1 MW Enclosed Inverter
89	Tr880	**71.7**	597,443	4,749,213	1 MW Enclosed Inverter
90	Tr882	**71.7**	597,730	4,749,213	1 MW Enclosed Inverter
91	Tr884	**71.7**	597,928	4,749,214	1 MW Enclosed Inverter
92	Tr886	**71.7**	597,323	4,749,204	1 MW Enclosed Inverter
93	Tr888	**71.7**	597,434	4,749,204	1 MW Enclosed Inverter

SCHEDULE B
Solar Inverters
continued

	Source ID	Sound Power Level (dBA)	Easting (m)	Northing (m)	Source Description
94	Tr890	**71.7**	597,570	4,749,203	1 MW Enclosed Inverter
95	Tr892	**71.7**	597,706	4,749,203	1 MW Enclosed Inverter
96	Tr894	**71.7**	597,843	4,749,203	1 MW Enclosed Inverter
97	Tr896	**71.7**	597,951	4,749,203	1 MW Enclosed Inverter
98	Tr898	**71.7**	597,476	4,748,955	1 MW Enclosed Inverter
99	Tr900	**71.7**	597,744	4,748,955	1 MW Enclosed Inverter
100	Tr902	**71.7**	597,541	4,748,946	1 MW Enclosed Inverter

Note: The 1 MW Enclosed Inverters is comprised of an enclosure with two (2) 500 kW Inverters.

The reasons for the imposition of these terms and conditions are as follows:

1. Conditions A1 and A2 are included to ensure that the Facility is constructed, installed, used, operated, maintained and retired in the manner in which it was described for review and upon which Approval was granted. These conditions are also included to emphasize the precedence of conditions in the Approval and the practice that the Approval is based on the most current document, if several conflicting documents are submitted for review;

2. Conditions A3 and A4 are included to require the Company to provide information to the public and the local municipality.

3. Conditions A5, A6 and A7 are included to ensure that final retirement of the Facility is completed in an aesthetically pleasing manner, in accordance with Ministry standards, and to ensure long-term protection of the health and safety of the public and the environment.

4. Condition A8 is included to require the Company to inform the Ministry of the commencement of activities related to the construction, installation and operation of the Facility.

5. Condition B is intended to limit the time period of the Approval.

6. Condition C1 is included to provide the minimum performance requirement considered necessary to prevent an Adverse Effect resulting from the operation of the Equipment and to ensure that the noise emissions from the Equipment will be in compliance with applicable limits set in the Noise Guidelines for Wind Farms.

7. Conditions C2, and C3 are included to ensure that the Equipment is constructed, installed, used, operated, maintained and retired in a way that meets the regulatory setback prohibitions set out in O. Reg. 359/09.

8. Condition D is included to require the Company to gather accurate information so that the environmental noise impact and subsequent compliance with the Act, O. Reg. 359/09, and this Approval can be verified.

9. Conditions E, F, G, and H are included to ensure that the Facility is constructed, installed, used, operated, maintained and retired in a way that does not result in an Adverse Effect or hazard to the natural environment or any persons.

10. Condition I is included to protect archaeological resources that may be found at the project location.

11. Condition J is included to ensure continued communication between the Company and the local residents.

12. Condition K is included to emphasize that the Equipment must be maintained and operated according to a procedure that will result in compliance with the Act, O. Reg. 359/09 and this Approval.

13. Condition L is included to require the Company to keep records and provide information to the Ministry so that compliance with the Act, O. Reg. 359/09 and this Approval can be verified.

14. Condition M is included to ensure that any complaints regarding the construction, installation, use, operation, maintenance or retirement of the Facility are responded to in a timely and efficient manner.

15. Condition N is included to ensure that the Facility is operated under the corporate name which appears on the application form submitted for this Approval and to ensure that the Director is informed of any changes.

16. Condition O is included to require the Company to ensure continued communication between the Company and Aboriginal communities.

NOTICE REGARDING HEARINGS

In accordance with Section 139 of the Environmental Protection Act, within 15 days after the service of this notice, you may by further written notice served upon the Director, the Environmental Review Tribunal and the Environmental Commissioner, require a hearing by the Tribunal.

In accordance with Section 47 of the Environmental Bill of Rights, 1993, the Environmental Commissioner will place notice of your request for a hearing on the Environmental Registry.

Section 142 of the Environmental Protection Act provides that the notice requiring the hearing shall state:

1. The portions of the renewable energy approval or each term or condition in the renewable energy approval in respect of which the hearing is required, and;
2. The grounds on which you intend to rely at the hearing in relation to each portion appealed.

The signed and dated notice requiring the hearing should also include:

3. The name of the appellant;
4. The address of the appellant;
5. The renewable energy approval number;
6. The date of the renewable energy approval;
7. The name of the Director;
8. The municipality or municipalities within which the project is to be engaged in;

This notice must be served upon:

The Secretary*
Environmental Review Tribunal
655 Bay Street, 15th Floor
Toronto, Ontario
M5G 1E5

AND

The Environmental Commissioner
1075 Bay Street, 6th Floor
Suite 605
Toronto, Ontario
M5S 2B1

AND

The Director
Section 47.5, *Environmental Protection Act*
Ministry of the Environment
2 St. Clair Avenue West, Floor 12A
Toronto, Ontario
M4V 1L5

*** Further information on the Environmental Review Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 314-4600, Fax: (416) 314-4506 or www.ert.gov.on.ca**

Under Section 142.1 of the Environmental Protection Act, residents of Ontario may require a hearing by the Environmental Review Tribunal within 15 days after the day on which notice of this decision is published in the Environmental Registry. By accessing the Environmental Registry at www.ebr.gov.on.ca, you can determine when this period ends.

Approval for the above noted renewable energy project is issued to you under Section 47.5 of the Environmental Protection Act subject to the terms and conditions outlined above.

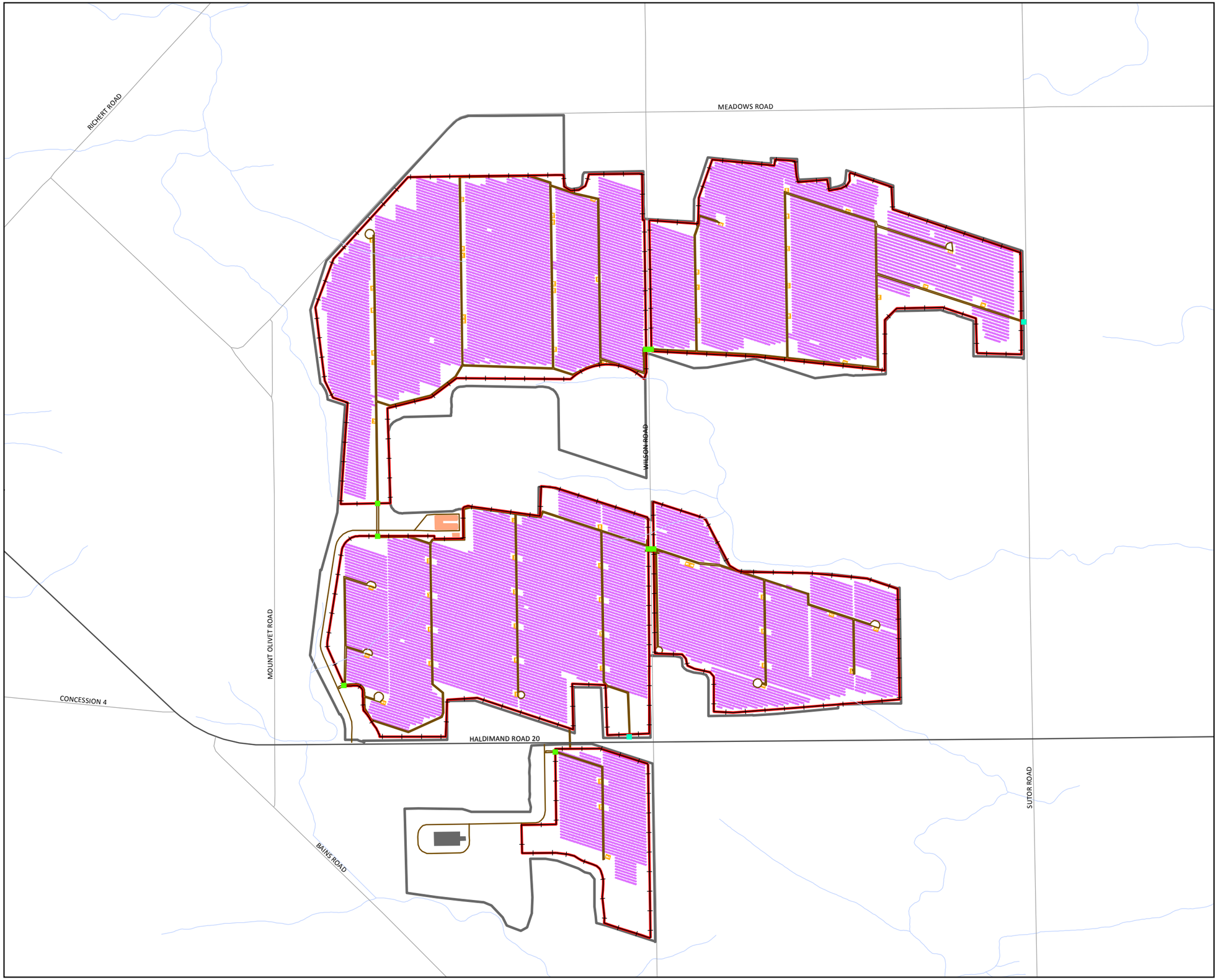
DATED AT TORONTO this 15th day of June, 2012

Vic Schroter, P.Eng.
Director
Section 47.5, *Environmental Protection Act*

DM/
c: District Manager, MOE Hamilton - District
Mark Kozak, Stantec Consulting Ltd.

Appendix B

COMPARISON FIGURES



GRAND RENEWABLE SOLAR PROJECT

Comparison of Preliminary and Final Project Locations

- Gate - Permanent
- Gate - Temporary
- Highway
- Major Road
- Minor Road
- Watercourse
- Access Road
- Inverter
- Solar Panel
- Fence Line
- Project Boundary (Final Design)
- Project Boundary (Preliminary Design)
- Collector Substation
- Operation & Maintenance Building

1:12,000

0 50 100 200 300 400 m

MAP CREATED BY: GM
MAP CHECKED BY: MB
MAP PROJECTION: NAD 1983 UTM Zone 17N

FILE LOCATION: I:\GIS\137911 - Grand Renewable Solar\Mapping

DILLON CONSULTING

PROJECT: 137911
STATUS: DRAFT
DATE: 6/24/2013

GRAND RENEWABLE SOLAR PROJECT

Figure 2
Comparison of Noise Assessment for Preliminary and Final Project Locations

- Gate - Permanent
- Gate - Temporary
- Major Road
- Minor Road
- Access Road
- 40 dBA 4.5 m Noise Contour (Final Design)
- 40 dBA 4.5 m Noise Contour (Preliminary Design)
- Inverter
- Solar Panel
- Fence Line
- Project Boundary (Final Design)
- Project Boundary (Preliminary Design)
- Collector Substation
- Operation & Maintenance Building

1:12,000

0 50 100 200 300 400 m

MAP CREATED BY: GM
MAP CHECKED BY: MB
MAP PROJECTION: NAD 1983 UTM Zone 17N

FILE LOCATION: I:\GIS\137911 - Grand Renewable Solar\Mapping

DILLON CONSULTING

PROJECT: 137911
STATUS: DRAFT
DATE: 7/8/2013

Appendix C

AGENCY CORRESPONDENCE

Grand Renewable Solar LP
9th Fl. 55 Standish Court, Mississauga, ON L5R 4B2 Canada TEL: 905-501-5654 FAX: 905-285-1852

May 28, 2013

Ontario Ministry of the Environment
2 St. Clair Avenue West, Floor 12A
Toronto, ON M4V 1L5

Attention: Ian Parrot, Director

RE: GRAND RENEWABLE SOLAR PARK (REA NUMBER 9560-8UJJXS) POTENTIAL REVISIONS TO DESIGN AND LAYOUT

Dear Mr. Parrot,

Grand Renewable Solar LP/ Grand Renewable Solar GP Inc. ("**GRS**") is proposing to develop, construct and operate the Grand Renewable Solar Project (the "**Project**"). The Project is proposed within the County of Haldimand and is generally bounded by Mt. Olivet Road on the west, Meadows Road on the north, Sutor Road on the east and Haldimand Road 20 on the south. The Project will consist of a 100 MW (nameplate capacity) Class 3 solar facility. A Renewable Energy Approval (REA) application for the Project was submitted by GRS on October 2011 to the Ontario Ministry of the Environment ("**MOE**").

The transmission line and the project substation will be shared facility components owned and operated by GRS and the Grand Renewable Wind Project (the "**Wind Project**"), owned and operated by Grand Renewable Wind LP. The Project was approved by the MOE on June 15, 2012 and REA Number: 9560-8UJJXS (the "**REA**") was issued to GRS.

Since issuance of the REA, GRS has identified a number of potential revisions to the layout of the facility. This letter provides an overview of amendments proposed for the Project only (and does not affect the Wind Project or the jointly owned portions of the Project or the Wind Project), which we believe to be minor under the REA. We are seeking clarification whether the following suggested, potential changes to the Project are considered "Technical" by the MOE. We understand the review and acceptance of this letter will take between 2-3 business days.

The suggested, potential changes to the Project are as follows:

...cont'd

Potential Change	Rationale for Potential Change	REA Reports Requiring Revision	Potential Environmental Effects
Potential Change #1: Reduction in the number of Medium Voltage Stations and transformers from 100 to 65.	To optimize the layout and increase efficiency of the facility.	Project Description Report (PDR) Acoustic Assessment Report (AAR) Design and Operations Report (DOR) Project Summary Report	No additional environmental effects not previously discussed as part of the REA application are anticipated as a result of this change. While the SMA inverters to be used inside the Medium Voltage stations are higher voltage than the original ones specified, **the proposed Medium Voltage Stations will have the same noise emissions** as the previously indicated ones. While not a source of noise, there will also be a reduction in the number of combiner boxes and the amount of cabling required.
Potential Change #2: Increase to number of solar modules. The REA documents indicated the facility would require approximately 425,000 modules. At this time, we expect the actual number of modules to be approximately 5% greater. The AC system size will remain the same as in the REA application.	To optimize the layout and increase efficiency of the facility.	Project Description Report (PDR) Design and Operations Report (DOR) Construction Plan Report (CPR) Decommissioning Plan Report (DPR) Project Summary Report	No additional environmental effects not previously discussed as part of the REA application are anticipated as a result of this change. Visual impacts for the facility will remain the same; a berm around the solar project location is to be built as indicated in the original REA application submission to provide a visual barrier.
Potential Change #3: The footprint of the proposed project will be slightly smaller than in the REA application, and completely within the original fence line.	To optimize the layout and increase efficiency of the facility.	Project Description Report (PDR) Design and Operations Report (DOR) Decommissioning Plan Report (DPR) Construction Plan Report (CPR) Natural Heritage Assessment (NHA) Water Assessment	No additional environmental effects not previously discussed as part of the REA application are anticipated as a result of this change. **Since there are no new potential environmental effects, MTCS and MNR do not need to be contacted to review changes.**

...cont'd

Grand Renewable Solar LP
9th Fl. 55 Standish Court, Mississauga, ON L5R 4B2 Canada TEL: 905-501-5654 FAX: 905-285-1852

Potential Change #4: Temporary entrance gates during construction. Temporary entrance gates during construction will be located on Haldimand Road 20, Sutor Road and/or Meadows Road.	To optimize access to the facility during the construction phase.	Project Description Report (PDR) Design and Operations Report (DOR) Decommissioning Plan Report (DPR) Construction Plan Report (CPR)	No additional environmental effects not previously discussed as part of the REA application are anticipated as a result of this change. These temporary access gates will be removed and replaced with fencing once construction is complete. This amendment is included for clarity as the location of the entrance gates to the project was not explicitly outlined in the original REA submission.
Potential Change #5: Permanent entrance gates during construction and operations. Permanent entrance gates during construction and operations will be located to access the solar project location from Haldimand Road 20 and Wilson Road.	To optimize access to the facility during the operations phase.	Project Description Report (PDR) Design and Operations Report (DOR) Decommissioning Plan Report (DPR) Construction Plan Report (CPR)	No additional environmental effects not previously discussed as part of the REA application are anticipated as a result of this change. This amendment is included for clarity as the location of the entrance gates to the project was not explicitly outlined in the original REA submission.

We trust the above table contains sufficient information to confirm that the proposed changes to the above reference REA are considered minor. If additional information or clarification is required, please do not hesitate to contact me.

Best Regards,

Jeong-Tack Lee
President

Grand Renewable Solar LP, by its general partner, Grand Renewable Solar GP Inc.

Copies to:

Kristina Rudzki, Project Evaluator

Vic Schroter, Director Section 47.5 Environmental Protection Act

Petruniak, Jennifer <jpetruniak@dillon.ca>

Fwd: Clarification request

1 message

David Oxtoby <doxtoby@carbonfreetechnology.com> Fri, May 31, 2013 at 10:52 AM
To: Jennifer Petruniak <JPetruniak@dillon.ca>

FYI

Begin forwarded message:

From: Daniel Choi <danielchoi@samsung.com>
Date: May 31, 2013 10:47:14 AM EDT
To: "'Rudzki, Kristina (ENE)'" <Kristina.Rudzki@ontario.ca>
Cc: "'Guido, Sandra (ENE)'" <Sandra.Guido@ontario.ca>
Subject: RE: Clarification request

Dear Kristina,

Thanks for your kind and quick response.
We will follow up this according to your advice.

Sincerely,
Daniel

From: Rudzki, Kristina (ENE) [mailto:Kristina.Rudzki@ontario.ca]
Sent: Friday, May 31, 2013 10:38 AM
To: Daniel Choi
Cc: Guido, Sandra (ENE)
Subject: RE: Clarification request

Daniel,
Based on the information you have provided, the proposed modifications appear to be insignificant, and as such you should prepare your documentation for a submission of a minor amendment. Please be advised that the results of our technical review of your final noise assessment and modification report will ultimately confirm this assumption.
Thank-you,
Kristina Rudzki

From: Daniel Choi [mailto:danielchoi@samsung.com]
Sent: May 31, 2013 10:27 AM
To: Rudzki, Kristina (ENE)
Cc: Guido, Sandra (ENE)
Subject: RE: Clarification request

Dear Kristina,

I am writing to follow up re my letter dated May 28 seeking a "Clarification Request".

We are in the very final stages of arranging financing for the Grand Renewable Solar LP and we are eager to confirm that the MOE would treat the changes proposed in the letter as a minor amendment to the existing REA.

Any response you could provide today would be extremely helpful.

Best regards,

Daniel Choi

From: Rudzki, Kristina (ENE) [mailto:Kristina.Rudzki@ontario.ca]
Sent: Wednesday, May 29, 2013 10:52 AM
To: Daniel Choi
Cc: Guido, Sandra (ENE)
Subject: RE: Clarification request

Daniel,
I did receive your email that was sent last night. MOE will review what you have provided us and the modifications that you are proposing and will contact you once we have sufficient time to review the material.
Thank you,
Kristina

From: Daniel Choi [mailto:danielchoi@samsung.com]
Sent: May 29, 2013 10:40 AM
To: Rudzki, Kristina (ENE)
Subject: RE: Clarification request

Dear Kristina,

Could you kindly let me know whether you received the letter yesterday and if possible, when you expect to respond to it?

Sincerely,
Daniel

From: Daniel Choi [mailto:danielchoi@samsung.com]
Sent: Tuesday, May 28, 2013 8:17 PM
To: 'Kristina Rudzki'
Cc: 'Denton Miller'; 'Vic Schroter'; 'Sandra Guido'; 'David Oxtoby'; 'Matt O'Brien'; '??TF'; 'AshbyBeatrice'; 'Alison Forbes'
Subject: Clarification request

Dear Kristina,

After the meeting on April 10 at your office,
we have been investigated potential needs of revising layout within project boundary.
Please review our request of clarification for potential change on layout and question for entrance gates as attached
and please let us know your consideration.

If you have any question, please do not hesitate to contact me.

Sincerely,
Daniel

RE: Grand Renewable Solar LP - Questions follow up

1 message

Rudzki, Kristina (ENE) <Kristina.Rudzki@ontario.ca> 10 June 2013 09:46
To: "Bellamy, Megan" <mbellamy@dillon.ca>

Megan,

I have had some discussions regarding your questions and can offer the following:

We will be looking for comments from MNR. This could be as simple as an email, or as formal as a letter, but we will be looking for comments indicating that they have had a chance to review your proposed changes. We will not be looking for comments from MTCS.

Please also include the information regarding the temporary and permanent gates.

Thank you,

Kristina

From: Bellamy, Megan [mailto:mbellamy@dillon.ca]
Sent: June 10, 2013 7:08 AM
To: Rudzki, Kristina (ENE)
Subject: Grand Renewable Solar LP - Questions follow up

Hi Kristina,

I hope you had a great weekend. I just wanted to follow up and see if you'd had any luck finding answers to my questions about Grand Renewable Solar? Specifically, if sign off from MNR and MTCS is still needed given that the footprint of the project location is actually getting smaller, and if mention of small construction details like access gates is significant enough to include in the amendment report. Based on our conversation, I know you had felt that neither would be needed, but if you could confirm that would be great. Do you think you'll be able to get back to me today? Sorry for the rush - I appreciate your help with this!

Grand Renewable Solar Park Project

NHA REA AMENDMENT REPORT

JUNE 2013

DILLON CONSULTING

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF APPENDICES

1. INTRODUCTION

On June 15, 2012, Grand Renewable Solar LP/ Grand Renewable Solar GP Inc. was issued a Renewable Energy Approval (REA) to develop and operate a 100-megawatt (MW) solar photovoltaic project to be known as the Grand Renewable Solar Project (REA Number 9560-8UJJXS; see **Appendix A**). This project, together with the 148.6 MW wind project known as the Grand Renewable Wind Project, comprise the Grand Renewable Energy Park (GREP). The solar and wind projects will share a transformer substation, an Operations and Maintenance building and a transmission line. At this time, Grand Renewable Solar LP/ Grand Renewable Solar GP Inc. is seeking a minor amendment to the REA issued for the Grand Renewable Solar Project. As part of the REA minor Amendment to the Ontario Ministry of the Environment (MOE), it has been requested that the proponent provide an update to the Natural Heritage Assessment in order for the MNR to review and determine if the proposed amendments will impact the original NHA. The purpose of this Natural Heritage Assessment (NHA) REA Amendment Report is to overview the proposed amendments in the context of the Natural Heritage Assessment confirmed by the Ministry of Natural Resources on June 30, 2011 (see **Appendix A**). Included in the REA Amendment Report to the MOE will be written confirmation from the MNR that they have reviewed the proposed amendments and the NHA undertaken remains valid.

The Grand Renewable Solar Project is located on privately owned and Ontario Realty Corporation (ORC) managed lands within Haldimand County, Ontario, north of the Lake Erie shoreline and west of the Grand River. The solar facility is generally bounded by Mount Olivet Road to the west, Sutor Road to the East, Meadows Road to the north and Haldimand Road 20 to the south.[1] **Figure 1** provides an overview of both the preliminary design and final design solar project location.

The Natural Heritage Assessment, and the subsequent REA application for the GREP, was submitted to the MOE in October 2011 in accordance with the requirements of *Ontario Regulation 359/09*.[2] Although the REA documents submitted as part of the application cover requirements for all aspects of the GREP, the REA issued from the Ministry of the Environment to which this minor amendment applies is based on the solar portion of the project only and does not affect the wind project or the jointly

[1] Note that a small portion of the facility will be installed south of Haldimand Road 20, as shown on **Figure 1**.

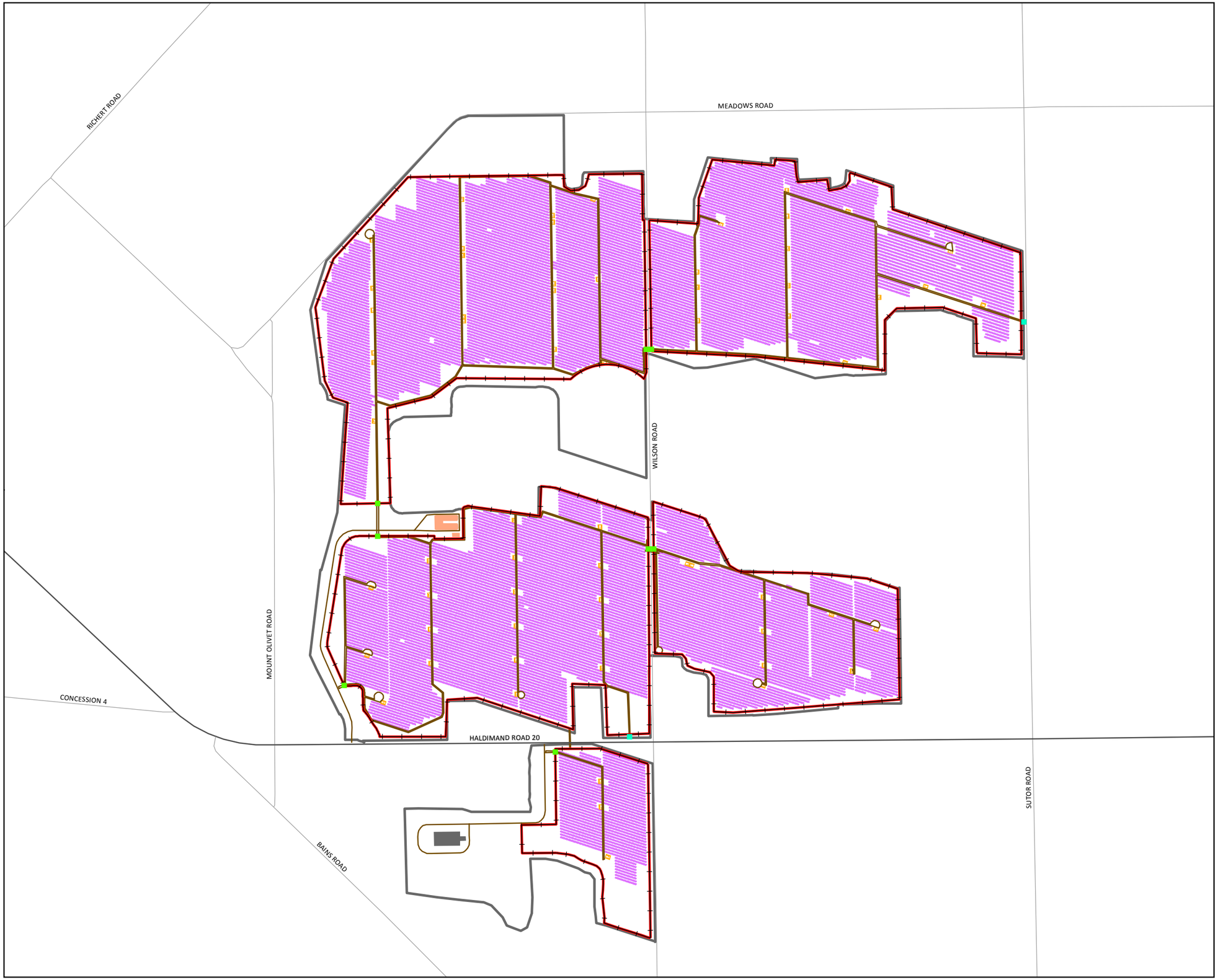
[2] It should be noted that the Proposal to Engage for this project was issued prior to January 1, 2011, and as such, the proponent is permitted to continue under the 2009/2010 pre-submission rules. For clarity, this report has been prepared in accordance with the 2011 pre-submission rules and fulfills the requirements of *Ontario Regulation 359/09*, as amended on November 2, 2012.

owned portions of both projects. None of the content of this NHA REA Amendment Report is intended to include information on the wind project or the jointly owned portions related to the project substation, Operations and Maintenance building or transmission line.

2. PROPONENT CONTACT INFORMATION

Should there be any questions about the minor amendments proposed for the Grand Renewable Solar Project, please contact:

David Oxtoby
Grand Renewable Solar LP
181 University Ave., Suite 300
Toronto, ON M5H 3M7
Tel: 416-975-8800 Ext. 601 (Office)
Tel: 416-300-1088 (Cell)
Fax: 416-975-8900
Email: doxtoby@carbonfreetechnology.com



GRAND RENEWABLE SOLAR PROJECT

Figure 1
Comparison of Preliminary and Final Project Locations

- Gate - Permanent
- Gate - Temporary
- Highway
- Major Road
- Minor Road
- Access Road
- Inverter
- Solar Panel
- Fence Line
- Project Boundary (Final Design)
- Project Boundary (Preliminary Design)
- Collector Substation
- Operation & Maintenance Building

1:12,000

0 50 100 200 300 400 m

MAP CREATED BY: GM
MAP CHECKED BY: MB
MAP PROJECTION: NAD 1983 UTM Zone 17N

FILE LOCATION: I:\GIS\137911 - Grand Renewable Solar\Mapping

DILLON CONSULTING

PROJECT: 137911
STATUS: DRAFT
DATE: 6/27/2013

3. OVERVIEW OF THE MINOR AMENDMENT

The basis for this minor amendment is the availability of more efficient equipment that allows for the reduction of the number inverter locations, each consisting of two DC to AC power inverters and a step-up transformer. Based on this, detailed engineering designs for the Grand Renewable Solar Project have been undertaken and the proponent identified the need to amend the original REA. Through consultation with the MOE in May 2013, it is expected that the proposed modifications detailed within this amendment report are insignificant in nature and represent a reduction in overall environmental effects of the project. As such, the proposed changes constitute a minor amendment.

If at any time the proposed amendments are not accepted by either the MNR or the MOE, it is the proponent's intention to construct and operate the Grand Renewable Solar Project in accordance with the original REA issued on June 15, 2012 (REA Number 9560-8UJJXS; see **Appendix A**).

To review the preliminary design and original REA submission made to the MOE, including the full Natural Heritage Assessment for this project, please visit: http://www.samsungrenewableenergy.ca/haldimand. The REA Amendment Report focuses on the following proposed changes:

- **Reduction in the overall footprint of the project.** Due to an improved system layout, the size of the project location (e.g., area within the fence line) has been reduced from 298.06 hectares (736.52 acres) to 274.37 hectares (677.98 acres). Specifically, the perimeter fence line has been reduced in the northwest corner of the project location (i.e., is set back further from Meadows Road), and has been reduced in the southern portion of the project location by reconfiguring the panel layout south of Haldimand Road 20 and eliminating the panels from a portion of the project location to the west of Wilson Road and north of Haldimand Road 20. A comparison of the preliminary design project location boundary and final design project location boundary is provided in **Figure 1**.
- **Increase to the number of solar modules**. The nameplate capacity of the project as outlined in the REA application remains at up to 100 MW alternating current (AC), as specified in the REA for this project. However, the amount of direct current (DC) energy produced has increased from 120 MW DC to 130 MW DC. To facilitate this change, the number of solar photovoltaic (PV) panels has been adjusted from 425,000 panels to approximately 440,000 – 450,000 panels.
- **Identification of temporary and permanent entrance gate locations**. The locations for the entrance gates to be used during construction and operation of this project were not specified. For clarity, this REA Amendment Report includes the locations of both "permanent" (i.e., will

remain after construction during operations) entrance gates on Wilson Road and around the perimeter of the project, and the "temporary" entrance gates that will be removed once construction of the facility is complete (see **Appendix B**). Permanent entrance gates have been located with consideration to participating landowners to the project. The temporary access gates are located off of Haldimand Road 20 and Sutor Road. These temporary entrance gates have been located strategically in an effort to reduce the overall transportation of materials and equipment through the project location and to construct the project in an efficient manner.

- **Reduction in the number of Medium Voltage Stations and transformers from 100 to 65**. It has been decided that a 1000 volt DC Medium Voltage Station housing two SMA SC 800CP-CA inverters will be used rather than the previously specified lower voltage models. As a result, the locations of the Medium Voltage Stations have changed and the footprint of the solar facility has been reduced.

The remainder of this NHA REA Amendment Report focuses on how the proposed changes outlined above may influence the original Natural Heritage Assessment. In accordance with direction provided by the MNR (Andrea Fleischhauer, Acting Renewable Energy Coordinator, Southern Region Resources Section, MNR, June 21, 2013), this NHA REA Amendment Report overviews each component of the Natural Heritage Assessment specified in Ontario Regulation 359/09 and includes a determination if the proposed changes alter the original June 24, 2011 submission.

4. AMENDMENTS TO THE RECORDS REVIEW

The proposed amendments outlined in **Section 3** include an overall decrease in the footprint of the solar project location. As such, applicable records of natural features within the project location and adjacent lands continue to be as outlined in the original NHA submitted to the MNR on June 24, 2011. As a result, there are no changes to the Records Review submitted to the MNR and confirmed on June 30, 2011.

5. AMENDMENTS TO THE SITE INVESTIGATION

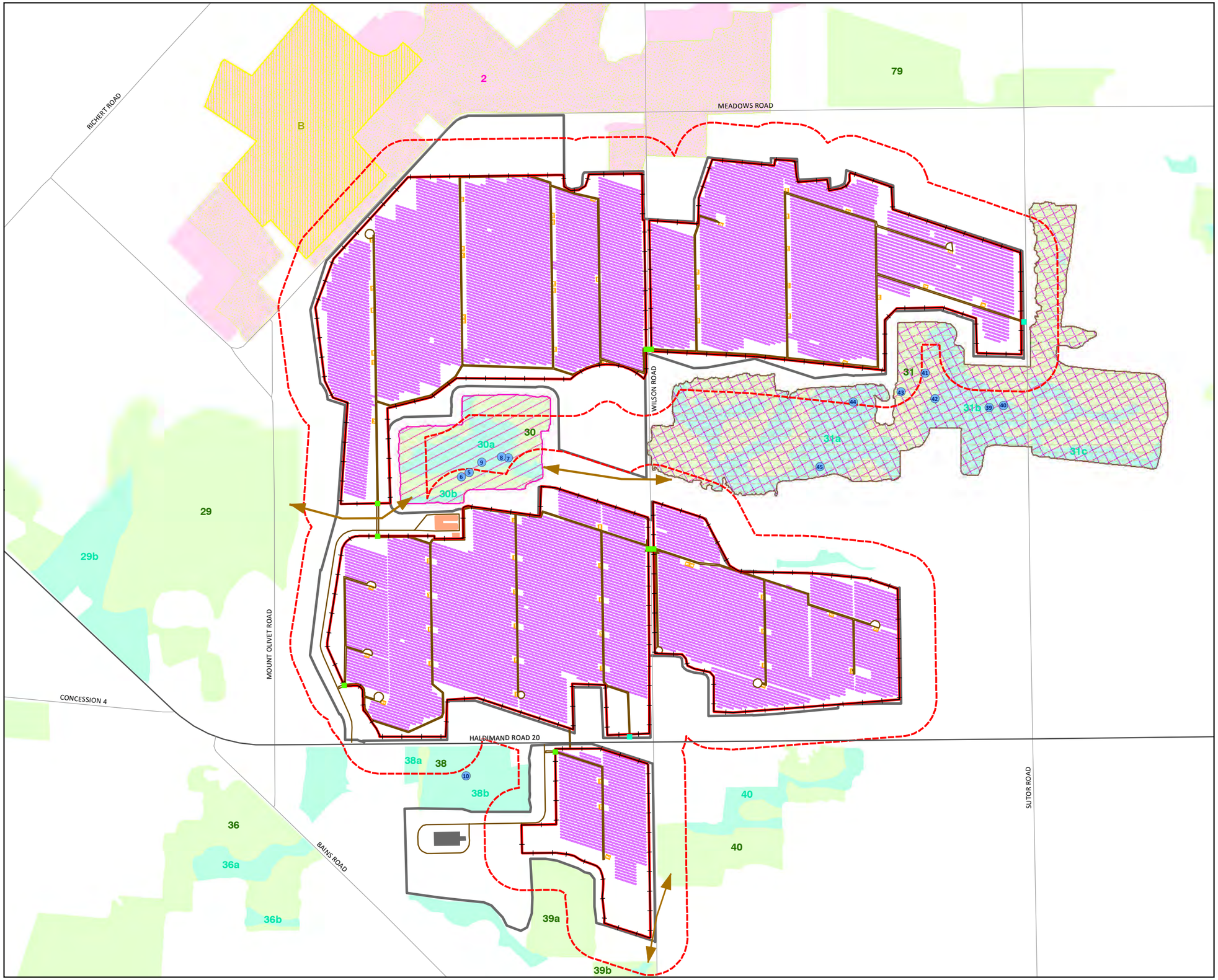
The proposed amendments outlined in **Section 3** include an overall decrease in the footprint of the solar project location. As such, it has been agreed with the MNR (Andrea Fleischhauer, Acting Renewable Energy Coordinator, Southern Region Resources Section, MNR, June 21, 2013 via email) that the site investigation work done in support of the NHA submitted to the MNR on June 24, 2011 continues to be sufficient for the purposes of this amendment. No previously unstudied area of land is within the revised solar project location or applicable adjacent lands. Based on this, there are no changes to the Site Investigation submitted to the MNR and confirmed on June 30, 2011.

6. AMENDMENTS TO THE EVALUATION OF SIGNIFICANCE

The proposed amendments outlined in Section 3 include an overall decrease in the footprint of the solar project location. This reduction in area does not influence the previous Evaluation of Significance undertaken for the natural features. Based on this, there are no changes to the Evaluation of Significance submitted to the MNR and confirmed on June 30, 2011. **Figure 2** outlines the location of previously evaluated significant natural features in context with the project boundary for both the preliminary design and the final design.

GRAND RENEWABLE SOLAR PROJECT

Figure 2
Significant Natural Features



- Gate - Permanent
- Gate - Temporary
- Highway
- Major Road
- Minor Road
- Access Road
- Inverter
- Solar Panel
- Fence Line
- Project Boundary (Final Design)
- Project Boundary (Preliminary Design)
- Collector Substation
- Operation & Maintenance Building

Significant Natural Features

- 5 Vernal Pool
- Deer Wintering Area
- Area-Sensitive Species Woodland Habitat
- Habitat for Declining Woodland Species
- B Habitat for Declining/Area-Sensitive Grassland Species
- Short-Eared Owl Habitat
- 2 Significant Winter Raptor Feeding & Roosting Area
- 40 Significant Wetland
- 30 Significant Woodland
- Animal Movement Corridor

1:12,000

0 50 100 200 300 400 m

MAP CREATED BY: GM
MAP CHECKED BY: MB
MAP PROJECTION: NAD 1983 UTM Zone 17N

FILE LOCATION: I:\GIS\137911 - Grand Renewable Solar\Mapping

DILLON CONSULTING

PROJECT: 137911
STATUS: DRAFT
DATE: 6/27/2013

7. AMENDMENTS TO THE ENVIRONMENTAL IMPACT STUDY

There are no additional potential negative environmental effects as a result of the proposed minor amendments that were not previously anticipated. As stated in the original NHA, no significant natural features will be directly impacted through the siting and construction of the Grand Renewable Solar Project. All commitments made to minimize indirect impacts on significant natural features located within 120 m of the Grand Renewable Solar Project will be implemented as outlined in the Environmental Impact Study submitted to the MNR on June 24, 2011. This includes the minimum setbacks indicated between the solar project location and significant natural features (see **Figure 2**).

Based on the revised final design for the Grand Renewable Solar Project, there is one significant improvement to the layout with respect to the identified animal movement corridor between Natural Features 30 and 31. The solar module array that was originally approved to be located directly between these natural features has been removed with the more efficient layout proposed (see **Figure 2**; the original Significant Natural Feature mapping is available in **Appendix B**). In addition, the perimeter security fence that would have been required around this module array has been moved to the north, resulting in a wider corridor linking the two natural features.

This portion of the animal movement corridor between Natural Features 30 and 31 is bisected by Wilson Road. To facilitate efficient movement of materials and equipment around the solar project location, permanent entrance gates are proposed to the north and south of the animal movement corridor off of Wilson Road (see **Figure 2**). Vehicle traffic is proposed to cross Wilson Road in the area of these gates. As Wilson Road is currently an unopened road allowance, there are no plans to upgrade this road to municipal standards and only the portion of the road between the east and west gates will be crossed. Based on this, there are no additional impacts anticipated to the animal movement corridor that crosses Wilson Road between these locations.

For the portion of this animal movement corridor that is between Natural Features 29 and 30, this has been maintained as originally proposed in the June 24, 2011 NHA submission with no fencing (see **Figure 2**). To facilitate efficient transport around the project location, an additional gravel access road is proposed to be constructed perpendicular to the substation access road and the animal movement corridor (see **Figure 2**). This access road will be constructed in a similar fashion as the other gravel access roads identified in the original REA submission and best management practices will be implemented. No additional impacts to the animal movement corridor are anticipated based on this proposed change. This area of the corridor will continue to include obstructions to restrict trespass and

ATV movement while incorporating natural design features to encourage use by deer and other mammals.

8. SUMMARY

The view of Grand Renewable Solar LP/ Grand Renewable Solar GP Inc. is the above-listed amendments to the Grand Renewable Solar Project are improvements for the neighbouring residents and the environment. None of the amendments will create any new potential negative environmental effects to significant natural features or neighbouring residents. Mitigation measures included in the REA submission with the preliminary design will continue to be implemented as stated.

Appendix A

APPROVALS

RENEWABLE ENERGY APPROVAL

NUMBER 9560-8UJJXS
Issue Date: June 15, 2012

Grand Renewable Solar LP / Grand Renewable Solar GP Inc.
55 Standish Crt
Mississauga, Ontario
L5R 4B2

Project Location: Haldimand County, Near Haldimand Road 20
Haldimand County, Near Haldimand 20
Haldimand County,
N0A 1E0

You have applied in accordance with Section 47.4 of the Environmental Protection Act for approval to engage in a renewable energy project in respect of a Class 3 solar facility consisting of the following:

- the construction, installation, operation, use and retiring of a Class 3 solar facility with a total name plate capacity of up to approximately 100 megawatts.

For the purpose of this renewable energy approval, the following definitions apply:

1. "Acoustic Assessment Report" means the report included in the Application and entitled Grand Renewable Energy Park-Noise Assessment Report Revision 2, dated May 29, 2012 prepared by Zephyr North Ltd. and signed by Carl Brothers P.Eng., Zephyr North Ltd. and an addendum entitled Grand Renewable Energy Park — Noise Assessment Report — Revision 2 — Addendum 1 dated May 29, 2012 prepared by Zephyr North Ltd. and signed by Carl Brothers P. Eng., Zephyr North Ltd. May 29, 2012.

2. "Acoustic Audit" means an investigative procedure consisting of measurements and/or acoustic modelling of all noise sources due to the operation of the Equipment, assessed to determine compliance with the noise limits set out in this

3. "Acoustic Audit Report" means a report presenting the results of the Acoustic Audit.

4. "Acoustic Audit – Transformers and Inverters" means an investigative procedure consisting of measurements and/or acoustic modeling of the transformers and inverters, assessed to determine compliance with the Sound Power Level specification of the transformers and inverters described in the Acoustic Assessment Report;

5. "Acoustic Audit Report - Transformers and Inverters" means a report presenting the results of the Acoustic Audit - Transformers and Inverters.

6. "Acoustical Consultant" means a person currently active in the field of environmental acoustics and noise/vibration control, who is knowledgeable about Ministry noise guidelines and procedures and has a combination of formal university education, training and experience necessary to assess noise emissions from solar facilities;

7. "Act" means the *Environmental Protection Act* , R.S.O 1990, c.E.19, as amended;

8. "Adverse Effect" has the same meaning as in the Act;

9. "Application" means the application for a Renewable Energy Approval dated October 3, 2011, and signed by Jeong Tack Lee, President, Grand Renewable Solar GP Inc., on behalf of Grand Renewable Solar LP, and all supporting documentation submitted with the application, including amended documentation submitted up to the date this Approval was issued;

10. "Approval" means this Renewable Energy Approval issued in accordance with Section 47.4 of the Act, including any schedules to it;

11. "A-weighting" means the frequency weighting characteristic as specified in the International Electrotechnical Commission (IEC) Standard 61672, and intended to approximate the relative sensitivity of the normal human ear to different frequencies (pitches) of sound. It is denoted as "A";

12. "A-weighted Sound Pressure Level" means the Sound Pressure Level modified by application of an A-weighting network. It is measured in decibels, A-weighted, and denoted "dBA";

13. "Class 1 Area" means an area with an acoustical environment typical of a major population centre, where the background sound level is dominated by the activities of people, usually road traffic, often referred to as "urban hum";

14. "Class 2 Area" means an area with an acoustical environment that has qualities representative of both Class 1 and Class 3 Areas:

(a) sound levels characteristic of Class 1 during daytime (07:00 to 19:00 or to 23:00 hours);

(b) low evening and night background sound level defined by natural environment and infrequent human activity starting as early as 19:00 hours (19:00 or 23:00 to 07:00 hours);

(c) no clearly audible sound from stationary sources other than from those under impact assessment.

15. "Class 3 Area" means a rural area with an acoustical environment that is dominated by natural sounds having little or no road traffic, such as the following:

(a) a small community with less than 1000 population;

(b) agricultural area;

(c) a rural recreational area such as a cottage or a resort area; or

(d) a wilderness area.

16. "Company" means Grand Renewable Solar GP Inc., as general partner for and on behalf of Grand Renewable Solar LP, the partnership under the laws of Ontario, and includes its successors and assignees;

17. “Decibel" means a dimensionless measure of Sound Level or Sound Pressure Level, denoted as dB;

18. "Director" means a person appointed in writing by the Minister of the Environment pursuant to section 5 of the Act as a Director for the purposes of section 47.5 of the Act;

19. "District Manager" means the District Manager of the appropriate local district office of the Ministry where the Facility is geographically located;

20. "Equipment" means the one hundred (100) inverter enclosures (containing 200-500 kW inverters), one hundred (100) transformers, and one (1) 65/86/108 MVA solar transformer, identified in this Approval and as further described in the Application, to the extent approved by this Approval;

21. "Equivalent Sound Level" is the value of the constant sound level which would result in exposure to the same total A-weighted energy as would the specified time-varying sound, if the constant sound level persisted over an equal time interval. It is denoted L_{eq} and is measured in dB A-weighting (dBA);

22. "Facility" means the renewable energy generation facility, including the Equipment, as described in this Approval and as further described in the Application, to the extent approved by this Approval;

23. "Independent Acoustical Consultant" means an Acoustical Consultant who is not representing the Company and was not involved in preparing the Acoustic Assessment Report. The Independent Acoustical Consultant shall not be retained by the Acoustical Consultant involved in the noise impact assessment;

24. "Ministry" means the ministry of the government of Ontario responsible for the Act and includes all officials, employees or other persons acting on its behalf;

25. "Noise Control Measures" means measures to reduce the noise emissions from the Facility and/or Equipment including, but not limited to, barriers, silencers, acoustical louvres, hoods and acoustical treatment, described in the Acoustic Assessment Report;

26. "O. Reg. 359/09" means Ontario Regulation 359/09 "Renewable Energy Approvals under Part V.0.1 of the Act" made under the Act;

27. "Point of Reception" has the same meaning as in Publication NPC-205 or Publication NPC-232, as applicable, and is subject to the same qualifications described in those documents;

28. "Publication NPC-103" means the Ministry Publication NPC-103, "Procedures", August 1978;

29. "Publication NPC-104" means the Ministry Publication NPC-104, "Sound Level Adjustments", August 1978;

30. "Publication NPC-205" means the Ministry Publication NPC-205, "Sound Level Limits for Stationary Sources in Class 1 & 2 Areas (Urban)", October 1995;

31. "Publication NPC-232" means the Ministry Publication NPC-232, "Sound Level Limits for Stationary Sources in Class 3 Areas (Rural)", October 1995;

32. "Publication NPC-233" means the Ministry Publication NPC-233, "Information to be Submitted for Approval of Stationary Sources of Sound", October 1995;

33. "Sound Level" means the A-weighted Sound Pressure Level;

34. "Sound Level Limit" is the limiting value described in terms of the one hour A-weighted Equivalent Sound Level L_{eq};

35. "Sound Power Level" is ten times the logarithm to the base of 10 of the ratio of the sound power (Watts) of a noise source to standard reference power of 10^{-12} Watts;

36. "Sound Pressure" means the instantaneous difference between the actual pressure and the average or barometric pressure at a given location. The unit of measurement is the micro pascal (µPa);

37. "Sound Pressure Level" means twenty times the logarithm to the base 10 of the ratio of the effective pressure (µPa) of a sound to the reference pressure of 20 µPa;

38. "UTM" means Universal Transverse Mercator coordinate system.

You are hereby notified that this approval is issued to you subject to the terms and conditions outlined below:

TERMS AND CONDITIONS

A - GENERAL

A1. The Company shall construct, install, use, operate, maintain and retire the Facility in accordance with the terms and conditions of this Approval and the Application and in accordance with the following schedules attached hereto:

Schedule A - Facility Description

Schedule B - Coordinates of the Equipment and Noise Specifications

A2. Where there is a conflict between a provision of this Approval and any document submitted by the Company, the conditions in this Approval shall take precedence. Where there is a conflict between one or more of the documents submitted by the Company, the document bearing the most recent date shall take precedence.

A3. The Company shall ensure a copy of this Approval is:

(1) accessible, at all times, by Company staff operating the Facility and;

(2) submitted to the clerk of each local municipality and upper-tier municipality in which the Facility is situated.

A4. If the Company has a publicly accessible website, the Company shall ensure that the Approval and the Application are posted on the Company's publicly accessible website within five (5) business days of receiving this Approval.

A5. The Company shall, at least six (6) months prior to the anticipated retirement date of the entire Facility, or part of the Facility, review its Decommissioning Plan Report to ensure that it is still accurate. If the Company determines that the Facility cannot be decommissioned in accordance with the Decommissioning Plan Report, the Company shall provide the Director and District Manager a written description of plans for the decommissioning of the Facility.

A6. The Facility shall be retired in accordance with the Decommissioning Plan Report and any directions provided by the Director or District Manager.

A7. The Company shall, at least six (6) months prior to the anticipated retirement date of the entire Facility, or part of the Facility, contact the Ministry of Agriculture, Food and Rural Affairs to discuss plans for the decommissioning of the Facility, including the Company's objective to restore the project location to its previous agricultural capacity

A8. The Company shall provide the District Manager and the Director at least ten (10) days written notice of the following:

(1) the commencement of any construction or installation activities at the project location; and

(2) the commencement of the operation of the Facility.

B - EXPIRY OF APPROVAL

B1. Construction and installation of the Facility must be completed within three (3) years of the later of:

(1) the date this Approval is issued; or

(2) if there is a hearing or other litigation in respect of the issuance of this Approval, the date that this hearing or litigation is disposed of, including all appeals.

B2. This Approval ceases to apply in respect of any portion of the Facility not constructed or installed before the later of the dates identified in Condition No. B1.

C - NOISE PERFORMANCE LIMITS

C1. The Company shall ensure that:

(1) the Sound Levels from the Equipment, at the Points of Reception identified in the Acoustic Assessment Report, comply with the Sound Level Limit of 40 dBA as described in Publication NPC-232, subject to adjustment for tonality as described in Publication NPC-104;

(2) the Equipment is constructed and installed at either of the following locations:

(a) at the locations identified in Schedule B of this Approval; or

(b) at a location that does not vary by more than 10 metres from the locations identified in Schedule B of this Approval and provided that,

i) the Equipment will comply with Condition No. C1 (1), and

ii) all setback prohibitions established under O. Reg. 359/09 are complied with.

(3) the Equipment complies with the noise specifications set out in Schedule B of this Approval; and

(4) all of the Noise Control Measures are fully implemented prior to the commencement of the operation of the Facility.

C2. If the Company determines that some or all of the Equipment cannot be constructed in accordance with Condition No. C1 (2), prior to the construction and installation of the Equipment in question, the Company shall apply to the Director for an amendment to the terms and conditions of the Approval.

C3. Within three (3) months of the completion of the construction of the Facility, the Company shall submit to the Director a written confirmation signed by an individual who has the authority to bind the Company that the UTM coordinates of the "as constructed" Equipment comply with the requirements of Condition No. C1 (2).

D - ACOUSTIC AUDIT

D1. The Company shall carry out an Acoustic Audit - Transformers and Inverters and shall submit to the District Manager and the Director an Acoustic Audit Report – Transformers and Inverters prepared by an Independent Acoustical Consultant no later than six (6) months after the commencement of the operation of the Facility.

D2. The Company shall carry out an Acoustic Audit of the Equipment in accordance with the procedures set out in Publication NPC-103, and shall submit to the District Manager and the Director an Acoustic Audit Report prepared by an Independent Acoustical Consultant in accordance with the requirements of Publication NPC-233, no later than six (6) months after the commencement of the operation of the Facility.

E - GROUNDWATER MONITORING

E1. Prior to the construction and installation of the Facility, the Company shall develop, and implement for a minimum period of two (2) years after it is developed, a pre- and post-construction ground water monitoring program, which shall include, as a minimum, the following information:

(1) Identification of ground water monitoring wells to be established at appropriate up and down gradient boundary locations of the project location.

(2) Identification of ground water monitoring parameters, monitoring frequency, and trigger concentrations based on appropriate information as deemed necessary for the monitoring wells as described in Condition No. E1 (1).

E2. The Company shall report the summary of the results of the pre- and post-construction ground water monitoring program on an annual basis to the District Manager.

F - STORMWATER MANAGEMENT

General

F1. The Company shall employ best management practices for stormwater management and sediment and erosion control during construction, installation, use, operation, maintenance and retiring of the Facility, as described in the Application including the report entitled Grand Renewable Energy Park Stormwater Management Report, dated February 10, 2011 and signed by Scott Robertson, P. Eng., Associate, Water Resources Project Manager .

F2. The Company shall design, construct, install, use, operate, maintain and retire stormwater management works that shall cover the transformer substation area and the operation and maintenance building drainage area, for a total area of 59 hectares (ha), in accordance with any plans and specifications set out in this Approval and the Application.

F3. The stormwater management works shall include the following, all in accordance with the plans and specifications set out in the Application:

(1) a Transformer Substation area with an extended detention dry pond;

(2) an operation and maintenance building area with a constructed wetland; and

(3) a vegetated swale / ditch system to divert and control clean stormwater from entering the developed areas within the Transformer Substation and operation and maintenance building areas and to control external flows.

F4. The Company shall notify the Director prior to making any material changes to the design and specifications described in Condition F3 and the Grand Renewable Energy Park Stormwater Management Report, dated February 10, 2011 and signed by Scott Robertson, P. Eng., Associate, Water Resources Project Manager.

Operation and Maintenance

F5. The Company shall ensure that the pond/wetland design minimum liquid retention volume is maintained at all times.

F6. The Company shall maintain the permanent pool depth to 1.0m within the forebay areas and monitor the accumulation of oil within the forebay or main cell.

F7. The Company shall inspect the stormwater management works semi-annually, i.e. twice per year, and, if necessary, clean and maintain the works to prevent the excessive build-up of sediments and/or vegetation.

F8. The Company shall include the following information in the operations and maintenance manual prepared under Condition K and the written records created under Condition I:

(1) operating procedures for routine operation of the stormwater management works;

(2) the date and results of all inspection, maintenance, and cleaning activities, including an estimate of the quantity of any materials removed; and

(3) the date of each spill within the catchment area, including follow-up actions / remedial measures undertaken.

Effluent Visual Operations

F9. The Company shall ensure that the effluent from the stormwater management works is essentially free of floating and settle-able solids and does not contain oil or any other substance in amounts sufficient to create a visible film, sheen or foam on the receiving waters.

F10. The Company shall conduct semi-annual, i.e. twice per year, walking inspections to identify areas of bare soil and/or the formation of erosive gullies, remediative efforts, areas of isolated ponding or sediment build-up.

Monitoring

F11. Upon commencement of the operation of the Facility, the Company shall establish and implement a monitoring program for the stormwater management works for a minimum period of five (5) years (with the option to request that the Director reduce the frequency of monitoring after three (3) years of satisfactory performance of the stormwater management works) in accordance with the following:

(1) the Company shall take all samples and measurements for the purposes of Condition F10 (2) at a time and in a location characteristic of the quality and quantity of the effluent stream over the time period being monitored;

(2) the Company shall collect and analyze the required samples at the sampling points listed in the table below in accordance with the measurement frequency and sample type specified, for each parameter in the table, and create a written record of the monitoring results:

Surface Water Monitoring	
Sample points: § at pond/wetland inlets. § at pond/wetland effluent discharge points.	
Frequency	Quarterly, i.e. four (4) times per year, at least once for the snowmelt freshet and the remaining within 72hours after a 15mm rainfall event.
Sample Type	Grab
Parameters	Total Suspended Solids, Total Phosphorus, Dissolved Oxygen, Oil & Grease, E. Coli, pH and Temperature.

(3) the Company's methods and protocols for any sampling, analysis and recording undertaken in accordance with Condition F10 (2) shall conform, in order of precedence, to the methods and protocols specified in the following documents:

(a)The Ministry's Procedure F-10-1, "Procedures for Sampling and Analysis Requirements for Municipal and Private Sewage Treatment Works (Liquid Waste Streams Only)", as amended from time to time by more recently published editions.(b)

(b) The Ministry's publication "Protocol for the Sampling and Analysis of Industrial/Municipal Wastewater" (January 1999), ISBN 0-7778-1880-9, as amended from time to time by more recently published editions.

(c)The publication "Standard Methods for the Examination of Water and Wastewater" (21st edition), as amended from time to time by more recently published editions.

(4) The Company shall include all written records and information related to, or resulting from, the monitoring activities undertaken in accordance with Condition F10 in the written records created under Condition P.

Annual Reporting

F12. By March 31st of each calendar year, the Company shall prepare and submit to the District Manager an annual report for the previous calendar year which summarizes all of the activities undertaken and written records created in accordance with Condition F, including monitoring data collected, data analysis and interpretation of results, and inspection, operations and maintenance activities, as well as recommendations for any preventive, remediative and reactive measures needed to ensure compliance with Condition F and protection of the environment.

G - SEWAGE WORKS OF THE TRANSFORMER SUBSTATION SPILL CONTAINMENT FACILITY

G1. Prior to the construction of the transformer substation, the Company shall retain an independent Professional Engineer licensed in Ontario, and knowledgeable about electrical transformer substations and their associated sewage works, to prepare a design report on the spill containment facility for the transformer substation that shall contain the following:

(1) final design drawings and specifications of the spill containment area and associated sewage works;
(2) operation and maintenance procedures for the spill containment facility including an emergency/contingency plan; and
(3) a monitoring program, including a groundwater monitoring program if a subsurface disposal system is proposed, which shall contain at a minimum one monitoring well immediately around the spill containment works and one on the property boundary down gradient from the transformer substation.

G2. The Company shall ensure that the spill containment facility for the transformer substation meets the following requirements:

(1) the containment facility shall have an impervious concrete floor and walls sloped toward an outlet, maintaining a freeboard of 0.25 metres terminating approximately 0.30 metres above grade, with an impervious plastic liner or equivalent, and 1.0 metre layer of crushed stoned within;

(2) the containment pad shall drain to an oil control device, such as an oil/water separator, a pump-out sump, an oil absorbing material in a canister or a blind sump; and

(3) the oil control device shall be equipped with an oil detection system and appropriate sewage appurtenances as necessary (pumpout manhole, submersible pumps, level controllers, floating oil sensors, etc.).

G3. The Company shall submit the design report for the spill containment facility prepared under Condition No. G1 to the Director and shall not commence the construction of the transformer substation until the Director provides written confirmation verifying that the Director is satisfied with the proposed sewage works.

G4. The Company shall design, construct and operate the sewage works of the transformer substation spill containment facility such that the concentration of the effluent parameter named in the table below does not exceed the maximum concentration objective shown for that parameter in the effluent, and shall comply with the following requirements:

Effluent Parameters	Maximum Concentration Objective
Oil and Grease	15mg/L

(a) notify the District Manager as soon as reasonably possible of any exceedance of the maximum concentration objective set out in the table above;
(b) take immediate action to identify the cause of the exceedance; and
(c) take immediate action to prevent further exceedances.

H - WATER TAKING ACTIVITIES

H1. The Company shall not take more than 50,000 litres of water on any day by any means for any other purpose than specified in Condition H2 during the construction, installation, use, operation, maintenance and retiring of the Facility.

H2. For water takings (by tanker) for the purpose of dust suppression, equipment washing and similar activities:

(1) notwithstanding the authorized rate of water taking, this Approval limits the taking of water at any site at the project location for up to 10% of the instantaneous streamflow present on the day or days of taking. The authorized water taking rate may therefore have to be adjusted downward to remain within this 10% maximum; and

(2) prior to taking water from any site at the project location, the Company shall contact the Grand River Conservation Authority and the Long Point Conservation Authority to determine if any low water conditions have been declared and are in effect. The Company shall not take water if a Level 2 or Level 3 low water condition has been declared.

I - ARCHAEOLOGICAL RESOURCES

I1. The Company shall implement all of the recommendations, if any, for further archaeological fieldwork and for the protection of archaeological sites found in the consultant archaeologist's report included in the Application, and which the Company submitted to the Ministry of Tourism and Culture in order to comply with clause 22 (2) (b) of O. Reg. 359/09.

I2. Should any previously undocumented archaeological resources be discovered, the Company shall:

(1) cease all alteration of the area in which the resources were discovered immediately;

(2) engage a consultant archaeologist to carry out the archaeological fieldwork necessary to further assess the area and to either protect and avoid or excavate any sites in the area in accordance with the *Ontario Heritage Act* , the regulations under that act and the Ministry of Tourism and Culture's *Standards and Guidelines for Consultant Archaeologists* ; and

(3) notify the Director as soon as reasonably possible.

J - COMMUNITY LIAISON COMMITTEE

J1. Within three (3) months of receiving this Approval, the Company shall make reasonable efforts to establish a Community Liaison Committee. The Community Liaison Committee shall be a forum to exchange ideas and share concerns with interested residents and members of the public. The Community Liaison Committee shall be established by:

(1) publishing a notice in a newspaper with general circulation in each local municipality in which the project location is situated; and

(2) posting a notice on the Company's publicly accessible website, if the Company has a website;

to notify members of the public about the proposal for a Community Liaison Committee and invite residents living within a one (1) kilometer radius of the Facility that may have an interest in the Facility to participate on the Community Liaison Committee.

J2. The Company may invite other members of stakeholders to participate in the Community Liaison Committee, including, but not limited to, local municipalities, local conservation authorities, Aboriginal communities, federal or provincial agencies, and local community groups.

J3. The Community Liaison Committee shall consist of at least one Company representative who shall attend all meetings.

J4. The purpose of the Community Liaison Committee shall be to:

(1) act as a liaison facilitating two way communications between the Company and members of the public with respect to issues relating to the construction, installation, use, operation, maintenance and retirement of the Facility;

(2) provide a forum for the Company to provide regular updates on, and to discuss issues or concerns relating to, the construction, installation, use, operation, maintenance and retirement of the Facility with members of the public; and

(3) ensure that any issues or concerns resulting from the construction, installation, use, operation, maintenance and retirement of the Facility are discussed and communicated to the Company.

J5. The Community Liaison Committee shall be deemed to be established on the day the Director is provided with written notice from the Company that representative Community Liaison Committee members have been chosen and a date for a first Community Liaison Committee meeting has been set.

J6. If a Community Liaison Committee has not been established within three (3) months of receiving this Approval, the Company shall provide a written explanation to the Director as to why this has not occurred.

J7. The Company shall ensure that the Community Liaison Committee operates for a minimum period of two (2) years from the day it is established. During this two (2) year period, the Company shall ensure that the Community Liaison Committee meets a minimum of two (2) times per year. At the end of this two (2) year period, the Company shall contact the Director to discuss the continued operation of the Community Liaison Committee.

J8. The Company shall ensure that all Community Liaison Committee meetings are open to the general public.

J9. The Company shall provide administrative support for the Community Liaison Committee including, at a minimum:

(1) providing a meeting space for Community Liaison Committee meetings;

(2) providing access to resources, such as a photocopier, stationery, and office supplies, so that the Community Liaison Committee can:

(a) prepare and distribute meeting notices;

(b) record and distribute minutes of each meeting; and

(c) prepare reports about the Community Liaison Committee's activities.

J10. The Company shall submit any reports of the Community Liaison Committee to the Director and post it on the Company's publicly accessible website, if the Company has a website.

K - OPERATION AND MAINTENANCE

K1. Prior to the commencement of the operation of the Facility, the Company shall prepare a written manual for use by Company staff outlining the operating procedures and a maintenance program for the Equipment that includes as a minimum the following:

(1) routine operating and maintenance procedures in accordance with good engineering practices and as recommended by the Equipment suppliers;

(2) emergency procedures;

(3) procedures for any record keeping activities relating to operation and maintenance of the Equipment; and

(4) all appropriate measures to minimize noise emissions from the Equipment.

K2. The Company shall;

(1) update, as required, the manual described in Condition No. K1; and

(2) make the manual described in Condition No. K1 available for review by the Ministry upon request.

K3. The Company shall ensure that the Facility is operated and maintained in accordance with the Approval and the manual described in Condition No. K1.

L - RECORD CREATION AND RETENTION

L1. The Company shall create written records consisting of the following:

(1) an operations log summarizing the operation and maintenance activities of the Facility;

(2) within the operations log, a summary of routine and Ministry inspections of the Facility; and

(3) a record of any complaint alleging an Adverse Effect caused by the construction, installation, use, operation, maintenance or retirement of the Facility.

L2. A record described under Condition No. L1 (3) shall include:

(1) a description of the complaint that includes as a minimum the following:

a) the date and time the complaint was made;

b) the name, address and contact information of the person who submitted the complaint;

(2) a description of each incident to which the complaint relates that includes as a minimum the following:

a) the date and time of each incident;

b) the duration of each incident;

c) the wind speed and wind direction at the time of each incident;

d) the ID of the Equipment involved in each incident and its output at the time of each incident;

e) the location of the person who submitted the complaint at the time of each incident; and

(3) a description of the measures taken to address the cause of each incident to which the complaint relates and to prevent a similar occurrence in the future.

L3. The Company shall retain, for a minimum of five (5) years from the date of their creation, all records described in Condition No. L1, and make these records available for review by the Ministry upon request.

M- NOTIFICATION OF COMPLAINTS

M1. The Company shall notify the District Manager of each complaint within two (2) business days of the receipt of the complaint.

M2. The Company shall provide the District Manager with the written records created under Condition No. L2 within eight (8) business days of the receipt of the complaint.

M3. If the Company receives a complaint related to groundwater, the Company shall contact the District Manager within one (1) business day of the receipt of the complaint to discuss appropriate measures to manage any potential groundwater issues.

N - CHANGE OF OWNERSHIP

N1. The Company shall notify the Director in writing, and forward a copy of the notification to the District Manager, within thirty (30) days of the occurrence of any of the following changes:

(1) the ownership of the Facility;

(2) the operator of the Facility;

(3) the address of the Company;

(4) the partners, where the Company is or at any time becomes a partnership and a copy of the most recent declaration filed under the *Business Names Act* , R.S.O. 1990, c.B.17, as amended, shall be included in the notification; and

(5) the name of the corporation where the Company is or at any time becomes a corporation, other than a municipal corporation, and a copy of the most current information filed under the *Corporations Information Act* , R.S.O. 1990, c. C.39, as amended, shall be included in the notification.

O - ABORIGINAL CONSULTATION

O1. The Company shall maintain communications with interested Aboriginal communities during the construction, installation, and operation of the Facility.

O2. The Company shall fulfil all commitments made to Aboriginal communities during the construction, installation, and operation of the Facility, including but not limited to, providing the following to interested Aboriginal communities that have requested or may request it:

(1) updated non-confidential project information, including the results of monitoring activities undertaken and copies of additional archaeological assessment reports that may be prepared; and;

(2) updates on key steps in the construction, installation, and operation phases of the Facility, including notice of the commencement of construction activities at the project location.

O3. If an interested Aboriginal community requests a meeting to obtain non-confidential information relating to the construction, installation, and operation of the Facility, the Company shall use reasonable efforts to arrange and participate in such a meeting.

O4 If any archaeological resources of Aboriginal origin are found during the construction of the Facility, the Company shall:

(1) notify the Six Nations of the Grand River and the Mississaugas of the New Credit and any other Aboriginal community considered likely to be interested or which has expressed an interest in such finds; and,

(2) arrange and participate in any meeting requested by an interested Aboriginal community to discuss the archaeological find(s) and/or the use of Aboriginal archaeological liaisons.

O5. The Company shall maintain records of communication with interested Aboriginal communities and make these records available for review by the Ministry upon request.

SCHEDULE A

Facility Description

The Facility shall consist of the construction, installation, operation, use and retiring of the following:

(a) approximately 425,000 solar photovoltaic (PV) panels, consisting of one hundred (100) 1 MW transformers and two hundred (200) inverters with output capacity in AC of each inverter being 500 kW;

(b) one transformer substation consisting of a solar transformer rated at approximately 65/86/108 megavolt-ampere (MVA); and

(c) associated ancillary equipment, systems and technologies including on-site access roads, switchgear, control and monitoring equipment, and underground cabling,

all in accordance with the Application.

SCHEDULE B
Coordinates of the Equipment are listed below in UTM17-NAD83 projection:
Transformers

	Source ID	Sound Power Level (dBA)	Easting (m)	Northing (m)	Source Description
1	TR301	**85**	596,520	4,749,113	Transformer 108 MVA
2	Tr601	**58**	596,363	4,750,350	1 MW Transformer
3	Tr602	**58**	596,176	4,750,180	1 MW Transformer
4	Tr603	**58**	596,369	4,750,177	1 MW Transformer
5	Tr604	**58**	596,506	4,750,177	1 MW Transformer
6	Tr605	**58**	596,672	4,750,178	1 MW Transformer
7	Tr606	**58**	596,781	4,750,176	1 MW Transformer
8	Tr607	**58**	596,097	4,750,009	1 MW Transformer
9	Tr608	**58**	596,234	4,750,171	1 MW Transformer
10	Tr609	**58**	596,371	4,750,171	1 MW Transformer
11	Tr610	**58**	596,508	4,750,171	1 MW Transformer
12	Tr611	**58**	596,645	4,750,170	1 MW Transformer
13	Tr612	**58**	596,782	4,750,169	1 MW Transformer
14	Tr613	**58**	596,017	4,749,838	1 MW Transformer
15	Tr614	**58**	596,210	4,749,834	1 MW Transformer
16	Tr615	**58**	596,348	4,749,834	1 MW Transformer
17	Tr616	**58**	596,485	4,749,834	1 MW Transformer
18	Tr617	**58**	596,622	4,749,834	1 MW Transformer
19	Tr618	**58**	596,759	4,749,833	1 MW Transformer
20	Tr619	**58**	596,896	4,749,833	1 MW Transformer
21	Tr620	**58**	595,938	4,749,827	1 MW Transformer
22	Tr621	**58**	596,075	4,749,828	1 MW Transformer
23	Tr622	**58**	596,212	4,749,828	1 MW Transformer
24	Tr623	**58**	596,349	4,749,828	1 MW Transformer
25	Tr624	**58**	596,487	4,749,828	1 MW Transformer

SCHEDULE B
Transformers
continued

	Source ID	Sound Power Level (dBA)	Easting (m)	Northing (m)	Source Description
26	Tr625	**58**	596,624	4,749,828	1 MW Transformer
27	Tr626	**58**	596,761	4,749,827	1 MW Transformer
28	Tr627	**58**	596,898	4,749,827	1 MW Transformer
29	Tr628	**58**	595,996	4,749,657	1 MW Transformer
30	Tr629	**58**	596,133	4,749,656	1 MW Transformer
31	Tr630	**58**	596,270	4,749,656	1 MW Transformer
32	Tr631	**58**	596,122	4,749,410	1 MW Transformer
33	Tr632	**58**	596,121	4,749,399	1 MW Transformer
34	Tr633	**58**	596,192	4,749,399	1 MW Transformer
35	Tr634	**58**	596,799	4,749,656	1 MW Transformer
36	Tr635	**58**	596,936	4,749,656	1 MW Transformer
37	Tr636	**58**	596,907	4,749,159	1 MW Transformer
38	Tr637	**58**	597,044	4,749,159	1 MW Transformer
39	Tr638	**58**	596,635	4,749,153	1 MW Transformer
40	Tr639	**58**	596,772	4,749,153	1 MW Transformer
41	Tr640	**58**	596,909	4,749,153	1 MW Transformer
42	Tr641	**58**	597,046	4,749,153	1 MW Transformer
43	Tr642	**58**	597,206	4,748,987	1 MW Transformer
44	Tr643	**58**	596,294	4,748,988	1 MW Transformer
45	Tr644	**58**	596,338	4,748,812	1 MW Transformer
46	Tr645	**58**	596,409	4,748,816	1 MW Transformer
47	Tr646	**58**	596,546	4,748,816	1 MW Transformer
48	Tr647	**58**	596,683	4,748,816	1 MW Transformer
49	Tr648	**58**	596,820	4,748,816	1 MW Transformer
50	Tr649	**58**	596,613	4,748,897	1 MW Transformer
51	Tr650	**58**	597,050	4,748,987	1 MW Transformer
52	Tr651	**58**	597,187	4,748,987	1 MW Transformer
53	Tr652	**58**	596,410	4,748,810	1 MW Transformer
54	Tr653	**58**	596,547	4,748,810	1 MW Transformer
55	Tr654	**58**	596,684	4,748,810	1 MW Transformer
56	Tr655	**58**	596,821	4,748,810	1 MW Transformer

SCHEDULE B
Transformers
continued

	Source ID	Sound Power Level (dBA)	Easting (m)	Northing (m)	Source Description
57	Tr656	**58**	596,915	4,748,981	1 MW Transformer
58	Tr657	**58**	597,189	4,748,981	1 MW Transformer
59	Tr658	**58**	596,516	4,748,473	1 MW Transformer
60	Tr659	**58**	596,653	4,748,473	1 MW Transformer
61	Tr661	**58**	597,130	4,748,216	1 MW Transformer
62	Tr662	**58**	597,197	4,748,226	1 MW Transformer
63	Tr663	**58**	597,268	4,748,226	1 MW Transformer
64	Tr664	**58**	597,338	4,748,226	1 MW Transformer
65	Tr665	**58**	597,414	4,748,225	1 MW Transformer
66	Tr666	**58**	597,126	4,750,395	1 MW Transformer
67	Tr667	**58**	597,262	4,750,395	1 MW Transformer
68	Tr668	**58**	597,398	4,750,395	1 MW Transformer
69	Tr669	**58**	597,530	4,750,396	1 MW Transformer
70	Tr670	**58**	597,711	4,750,377	1 MW Transformer
71	Tr671	**58**	597,849	4,750,377	1 MW Transformer
72	Tr672	**58**	597,986	4,750,377	1 MW Transformer
73	Tr673	**58**	597,049	4,750,389	1 MW Transformer
74	Tr674	**58**	597,186	4,750,389	1 MW Transformer
75	Tr675	**58**	597,322	4,750,389	1 MW Transformer
76	Tr676	**58**	597,458	4,750,389	1 MW Transformer
77	Tr677	**58**	597,567	4,750,388	1 MW Transformer
78	Tr678	**58**	597,713	4,750,371	1 MW Transformer
79	Tr679	**58**	597,982	4,750,371	1 MW Transformer
80	Tr680	**58**	596,998	4,750,215	1 MW Transformer
81	Tr681	**58**	597,107	4,750,052	1 MW Transformer
82	Tr682	**58**	597,243	4,750,052	1 MW Transformer
83	Tr683	**58**	597,380	4,750,052	1 MW Transformer
84	Tr684	**58**	597,516	4,750,052	1 MW Transformer
85	Tr685	**58**	597,625	4,750,055	1 MW Transformer
86	Tr686	**58**	597,404	4,750,046	1 MW Transformer
87	Tr687	**58**	597,216	4,750,046	1 MW Transformer

SCHEDULE B
Transformers
continued

	Source ID	Sound Power Level (dBA)	Easting (m)	Northing (m)	Source Description
88	Tr688	**58**	597,041	4,750,043	1 MW Transformer
89	Tr689	**58**	597,269	4,749,212	1 MW Transformer
90	Tr690	**58**	597,443	4,749,211	1 MW Transformer
91	Tr691	**58**	597,730	4,749,211	1 MW Transformer
92	Tr692	**58**	597,929	4,749,212	1 MW Transformer
93	Tr693	**58**	597,323	4,749,202	1 MW Transformer
94	Tr694	**58**	597,435	4,749,205	1 MW Transformer
95	Tr695	**58**	597,571	4,749,205	1 MW Transformer
96	Tr696	**58**	597,707	4,749,205	1 MW Transformer
97	Tr697	**58**	597,843	4,749,205	1 MW Transformer
98	Tr698	**58**	597,952	4,749,204	1 MW Transformer
99	Tr699	**58**	597,476	4,748,953	1 MW Transformer
100	Tr700	**58**	597,745	4,748,953	1 MW Transformer
101	Tr701	**58**	597,542	4,748,947	1 MW Transformer

SCHEDULE B
Solar Inverters

	Source ID	Sound Power Level (dBA)	Easting (m)	Northing (m)	Source Description
1	Tr702	**71.7**	596,362	4,750,352	1 MW Enclosed Inverter
2	Tr704	**71.7**	596,175	4,750,179	1 MW Enclosed Inverter
3	Tr706	**71.7**	596,368	4,750,179	1 MW Enclosed Inverter
4	Tr708	**71.7**	596,505	4,750,179	1 MW Enclosed Inverter
5	Tr710	**71.7**	596,671	4,750,176	1 MW Enclosed Inverter
6	Tr712	**71.7**	596,780	4,750,177	1 MW Enclosed Inverter
7	Tr714	**71.7**	596,096	4,750,007	1 MW Enclosed Inverter
8	Tr716	**71.7**	596,233	4,750,169	1 MW Enclosed Inverter
9	Tr718	**71.7**	596,370	4,750,169	1 MW Enclosed Inverter
10	Tr720	**71.7**	596,507	4,750,169	1 MW Enclosed Inverter
11	Tr722	**71.7**	596,644	4,750,168	1 MW Enclosed Inverter
12	Tr724	**71.7**	596,782	4,750,168	1 MW Enclosed Inverter
13	Tr726	**71.7**	596,017	4,749,836	1 MW Enclosed Inverter
14	Tr728	**71.7**	596,210	4,749,836	1 MW Enclosed Inverter
15	Tr730	**71.7**	596,347	4,749,836	1 MW Enclosed Inverter
16	Tr732	**71.7**	596,484	4,749,836	1 MW Enclosed Inverter
17	Tr734	**71.7**	596,621	4,749,835	1 MW Enclosed Inverter
18	Tr736	**71.7**	596,758	4,749,835	1 MW Enclosed Inverter
19	Tr738	**71.7**	596,895	4,749,835	1 MW Enclosed Inverter
20	Tr740	**71.7**	595,937	4,749,825	1 MW Enclosed Inverter
21	Tr742	**71.7**	596,074	4,749,826	1 MW Enclosed Inverter
22	Tr744	**71.7**	596,212	4,749,826	1 MW Enclosed Inverter
23	Tr746	**71.7**	596,349	4,749,826	1 MW Enclosed Inverter
24	Tr748	**71.7**	596,486	4,749,826	1 MW Enclosed Inverter
25	Tr750	**71.7**	596,623	4,749,826	1 MW Enclosed Inverter
26	Tr752	**71.7**	596,760	4,749,826	1 MW Enclosed Inverter
27	Tr754	**71.7**	596,897	4,749,826	1 MW Enclosed Inverter
28	Tr756	**71.7**	595,995	4,749,655	1 MW Enclosed Inverter
29	Tr758	**71.7**	596,132	4,749,655	1 MW Enclosed Inverter
30	Tr760	**71.7**	596,270	4,749,655	1 MW Enclosed Inverter
31	Tr762	**71.7**	596,798	4,749,654	1 MW Enclosed Inverter

SCHEDULE B
Solar Inverters
continued

	Source ID	Sound Power Level (dBA)	Easting (m)	Northing (m)	Source Description
32	Tr764	**71.7**	596,936	4,749,654	1 MW Enclosed Inverter
33	Tr766	**71.7**	596,121	4,749,408	1 MW Enclosed Inverter
34	Tr768	**71.7**	596,191	4,749,397	1 MW Enclosed Inverter
35	Tr770	**71.7**	596,906	4,749,161	1 MW Enclosed Inverter
36	Tr772	**71.7**	597,044	4,749,161	1 MW Enclosed Inverter
37	Tr774	**71.7**	596,121	4,749,397	1 MW Enclosed Inverter
38	Tr776	**71.7**	596,293	4,748,986	1 MW Enclosed Inverter
39	Tr778	**71.7**	596,634	4,749,152	1 MW Enclosed Inverter
40	Tr780	**71.7**	596,771	4,749,151	1 MW Enclosed Inverter
41	Tr782	**71.7**	596,908	4,749,151	1 MW Enclosed Inverter
42	Tr784	**71.7**	597,046	4,749,151	1 MW Enclosed Inverter
43	Tr786	**71.7**	597,206	4,748,989	1 MW Enclosed Inverter
44	Tr788	**71.7**	596,337	4,748,810	1 MW Enclosed Inverter
45	Tr790	**71.7**	596,408	4,748,818	1 MW Enclosed Inverter
46	Tr792	**71.7**	596,545	4,748,818	1 MW Enclosed Inverter
47	Tr794	**71.7**	596,682	4,748,818	1 MW Enclosed Inverter
48	Tr796	**71.7**	596,819	4,748,818	1 MW Enclosed Inverter
49	Tr798	**71.7**	596,956	4,748,818	1 MW Enclosed Inverter
50	Tr800	**71.7**	597,093	4,748,818	1 MW Enclosed Inverter
51	Tr802	**71.7**	597,230	4,748,818	1 MW Enclosed Inverter
52	Tr806	**71.7**	596,409	4,748,809	1 MW Enclosed Inverter
53	Tr808	**71.7**	596,546	4,748,809	1 MW Enclosed Inverter
54	Tr810	**71.7**	596,683	4,748,808	1 MW Enclosed Inverter
55	Tr812	**71.7**	596,821	4,748,808	1 MW Enclosed Inverter
56	Tr814	**71.7**	596,958	4,748,808	1 MW Enclosed Inverter
57	Tr816	**71.7**	597,232	4,748,808	1 MW Enclosed Inverter
58	Tr818	**71.7**	596,515	4,748,475	1 MW Enclosed Inverter
59	Tr820	**71.7**	596,652	4,748,475	1 MW Enclosed Inverter
60	Tr822	**71.7**	597,129	4,748,557	1 MW Enclosed Inverter
61	Tr824	**71.7**	597,196	4,748,567	1 MW Enclosed Inverter
62	Tr826	**71.7**	597,267	4,748,567	1 MW Enclosed Inverter

SCHEDULE B
Solar Inverters
continued

	Source ID	Sound Power Level (dBA)	Easting (m)	Northing (m)	Source Description
63	Tr828	**71.7**	597,337	4,748,567	1 MW Enclosed Inverter
64	Tr830	**71.7**	597,413	4,748,223	1 MW Enclosed Inverter
65	Tr832	**71.7**	597,125	4,750,397	1 MW Enclosed Inverter
66	Tr834	**71.7**	597,261	4,750,397	1 MW Enclosed Inverter
67	Tr836	**71.7**	597,397	4,750,397	1 MW Enclosed Inverter
68	Tr838	**71.7**	597,530	4,750,398	1 MW Enclosed Inverter
69	Tr840	**71.7**	597,711	4,750,379	1 MW Enclosed Inverter
70	Tr842	**71.7**	597,848	4,750,379	1 MW Enclosed Inverter
71	Tr844	**71.7**	597,985	4,750,379	1 MW Enclosed Inverter
72	Tr846	**71.7**	597,049	4,750,388	1 MW Enclosed Inverter
73	Tr848	**71.7**	597,185	4,750,388	1 MW Enclosed Inverter
74	Tr850	**71.7**	597,321	4,750,387	1 MW Enclosed Inverter
75	Tr852	**71.7**	597,458	4,750,387	1 MW Enclosed Inverter
76	Tr854	**71.7**	597,566	4,750,386	1 MW Enclosed Inverter
77	Tr856	**71.7**	597,712	4,750,370	1 MW Enclosed Inverter
78	Tr858	**71.7**	597,982	4,750,370	1 MW Enclosed Inverter
79	Tr860	**71.7**	596,998	4,750,216	1 MW Enclosed Inverter
80	Tr862	**71.7**	597,106	4,750,054	1 MW Enclosed Inverter
81	Tr864	**71.7**	597,243	4,750,054	1 MW Enclosed Inverter
82	Tr866	**71.7**	597,379	4,750,054	1 MW Enclosed Inverter
83	Tr868	**71.7**	597,515	4,750,054	1 MW Enclosed Inverter
84	Tr870	**71.7**	597,624	4,750,053	1 MW Enclosed Inverter
85	Tr872	**71.7**	597,040	4,750,045	1 MW Enclosed Inverter
86	Tr874	**71.7**	597,215	4,750,045	1 MW Enclosed Inverter
87	Tr876	**71.7**	597,403	4,750,044	1 MW Enclosed Inverter
88	Tr878	**71.7**	597,268	4,749,214	1 MW Enclosed Inverter
89	Tr880	**71.7**	597,443	4,749,213	1 MW Enclosed Inverter
90	Tr882	**71.7**	597,730	4,749,213	1 MW Enclosed Inverter
91	Tr884	**71.7**	597,928	4,749,214	1 MW Enclosed Inverter
92	Tr886	**71.7**	597,323	4,749,204	1 MW Enclosed Inverter
93	Tr888	**71.7**	597,434	4,749,204	1 MW Enclosed Inverter

SCHEDULE B
Solar Inverters
continued

	Source ID	Sound Power Level (dBA)	Easting (m)	Northing (m)	Source Description
94	Tr890	**71.7**	597,570	4,749,203	1 MW Enclosed Inverter
95	Tr892	**71.7**	597,706	4,749,203	1 MW Enclosed Inverter
96	Tr894	**71.7**	597,843	4,749,203	1 MW Enclosed Inverter
97	Tr896	**71.7**	597,951	4,749,203	1 MW Enclosed Inverter
98	Tr898	**71.7**	597,476	4,748,955	1 MW Enclosed Inverter
99	Tr900	**71.7**	597,744	4,748,955	1 MW Enclosed Inverter
100	Tr902	**71.7**	597,541	4,748,946	1 MW Enclosed Inverter

Note: The 1 MW Enclosed Inverters is comprised of an enclosure with two (2) 500 kW Inverters.

The reasons for the imposition of these terms and conditions are as follows:

1. Conditions A1 and A2 are included to ensure that the Facility is constructed, installed, used, operated, maintained and retired in the manner in which it was described for review and upon which Approval was granted. These conditions are also included to emphasize the precedence of conditions in the Approval and the practice that the Approval is based on the most current document, if several conflicting documents are submitted for review;

2. Conditions A3 and A4 are included to require the Company to provide information to the public and the local municipality.

3. Conditions A5, A6 and A7 are included to ensure that final retirement of the Facility is completed in an aesthetically pleasing manner, in accordance with Ministry standards, and to ensure long-term protection of the health and safety of the public and the environment.

4. Condition A8 is included to require the Company to inform the Ministry of the commencement of activities related to the construction, installation and operation of the Facility.

5. Condition B is intended to limit the time period of the Approval.

6. Condition C1 is included to provide the minimum performance requirement considered necessary to prevent an Adverse Effect resulting from the operation of the Equipment and to ensure that the noise emissions from the Equipment will be in compliance with applicable limits set in the Noise Guidelines for Wind Farms.

7. Conditions C2, and C3 are included to ensure that the Equipment is constructed, installed, used, operated, maintained and retired in a way that meets the regulatory setback prohibitions set out in O. Reg. 359/09.

8. Condition D is included to require the Company to gather accurate information so that the environmental noise impact and subsequent compliance with the Act, O. Reg. 359/09, and this Approval can be verified.

9. Conditions E, F, G, and H are included to ensure that the Facility is constructed, installed, used, operated, maintained and retired in a way that does not result in an Adverse Effect or hazard to the natural environment or any persons.

10. Condition I is included to protect archaeological resources that may be found at the project location.

11. Condition J is included to ensure continued communication between the Company and the local residents.

12. Condition K is included to emphasize that the Equipment must be maintained and operated according to a procedure that will result in compliance with the Act, O. Reg. 359/09 and this Approval.

13. Condition L is included to require the Company to keep records and provide information to the Ministry so that compliance with the Act, O. Reg. 359/09 and this Approval can be verified.

14. Condition M is included to ensure that any complaints regarding the construction, installation, use, operation, maintenance or retirement of the Facility are responded to in a timely and efficient manner.

15. Condition N is included to ensure that the Facility is operated under the corporate name which appears on the application form submitted for this Approval and to ensure that the Director is informed of any changes.

16. Condition O is included to require the Company to ensure continued communication between the Company and Aboriginal communities.

NOTICE REGARDING HEARINGS

In accordance with Section 139 of the Environmental Protection Act, within 15 days after the service of this notice, you may by further written notice served upon the Director, the Environmental Review Tribunal and the Environmental Commissioner, require a hearing by the Tribunal.

In accordance with Section 47 of the Environmental Bill of Rights, 1993, the Environmental Commissioner will place notice of your request for a hearing on the Environmental Registry.

Section 142 of the Environmental Protection Act provides that the notice requiring the hearing shall state:

1. The portions of the renewable energy approval or each term or condition in the renewable energy approval in respect of which the hearing is required, and;
2. The grounds on which you intend to rely at the hearing in relation to each portion appealed.

The signed and dated notice requiring the hearing should also include:

3. The name of the appellant;
4. The address of the appellant;
5. The renewable energy approval number;
6. The date of the renewable energy approval;
7. The name of the Director;
8. The municipality or municipalities within which the project is to be engaged in;

This notice must be served upon:

The Secretary*
Environmental Review Tribunal
655 Bay Street, 15th Floor
Toronto, Ontario
M5G 1E5

AND

The Environmental Commissioner
1075 Bay Street, 6th Floor
Suite 605
Toronto, Ontario
M5S 2B1

AND

The Director
Section 47.5, *Environmental Protection Act*
Ministry of the Environment
2 St. Clair Avenue West, Floor 12A
Toronto, Ontario
M4V 1L5

*** Further information on the Environmental Review Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 314-4600, Fax: (416) 314-4506 or www.ert.gov.on.ca**

Under Section 142.1 of the Environmental Protection Act, residents of Ontario may require a hearing by the Environmental Review Tribunal within 15 days after the day on which notice of this decision is published in the Environmental Registry. By accessing the Environmental Registry at www.ebr.gov.on.ca, you can determine when this period ends.

Approval for the above noted renewable energy project is issued to you under Section 47.5 of the Environmental Protection Act subject to the terms and conditions outlined above.

DATED AT TORONTO this 15th day of June, 2012

Vic Schroter, P.Eng.
Director
Section 47.5, *Environmental Protection Act*

DM/
c: District Manager, MOE Hamilton - District
Mark Kozak, Stantec Consulting Ltd.

Ministry of Natural Resources

Ministère des Richesses naturelles

Guelph District
1 Stone Road West
Guelph, Ontario
N1G 4Y2

Telephone: (519) 826-4955
Facsimile: (519) 826-4929

Ontario

June 30, 2011

Marnie Dawson
Manager - Renewable Energy Approvals
Samsung Renewable Energy Inc.
55 Standish Court, 9th Floor
Mississauga ON, L5R 4B2

Dear Ms. Dawson,

Subject: Grand Renewable Energy Park Natural Heritage Assessment and Environmental Impact Study

In accordance with the Ministry of the Environment's (MOE's) Renewable Energy Approvals (REA) Regulation (O.Reg.359/09), the Ministry of Natural Resources (MNR) has reviewed the natural heritage assessment and environmental impact study for the Grand Renewable Energy Park in Halidmand County submitted by Samsung Renewable Energy Inc. on June 24, 2011.

The project consists of a 151.1 MW (nameplate capacity) wind project, a 100 MW (nameplate capacity) solar project located on privately owned and Ontario Realty Corporation (ORC) managed lands and a transmission line to convey electricity to the existing power grid. According to subsection 6(3) of O. Reg. 359/09, the wind component of the project is classified as a Class 4 Wind Facility and the solar component of the project is classified as a Class 3 Solar Facility.

In accordance with Section 28(2) and 38(2)(b) of the REA regulation, MNR provides the following confirmations following review of the natural heritage assessment:

1. The MNR confirms that the determination of the existence of natural features and the boundaries of natural features was made using applicable evaluation criteria or procedures established or accepted by MNR.

2. The MNR confirms that the site investigation and records review were conducted using applicable evaluation criteria or procedures established or accepted by MNR, if no natural features were identified.

3. The MNR confirms that the evaluation of the significance or provincial significance of the natural features was conducted using applicable evaluation criteria or procedures established or accepted by MNR.

4. The MNR confirms that the project location is not in a provincial park or conservation reserve.

5. The MNR confirms that the environmental impact assessment report has been prepared in accordance with procedures established by the MNR.

In addition to the NHA, the Environmental Effects Monitoring Plans that address post-construction monitoring and mitigation for birds and bats have been prepared and must be implemented. These post-construction monitoring plans have been prepared in accordance with MNR Guidelines and reviewed and commented on by MNR staff on March 1, 2011.

This confirmation letter is valid for the project as proposed in the natural heritage assessment and environmental impact study, including those sections describing the Environmental Effects Monitoring Plan and Construction Plan Report. Should any changes be made to the proposed project that would alter the NHA, MNR may need to undertake additional review of the NHA.

Where specific commitments have been made by the applicant in the NHA with respect to project design, construction, rehabilitation, operation, mitigation, or monitoring, MNR expects that these commitments will be considered in MOE's Renewable Energy Approval decision and, if approved, be implemented by the applicant.

In accordance with S.12 (1) of the Renewable Energy Approvals Regulation, this letter must be included as part of your application submitted to the MOE for a Renewable Energy Approval.

Please be aware that your project is subject to additional legislative approvals as outlined in the Ministry of Natural Resources' *Approvals and Permitting Requirements Document*. These approvals are required prior to the construction of your renewable energy facility.

If you wish to discuss any part of this confirmation or additional comments provided, please contact April Nix, Renewable Energy Planning Ecologist at 519-826-4939 or at april.nix@ontario.ca.

Sincerely,

Ian Hagman
District Manager
Guelph District MNR

cc. Jim Beal, Renewable Energy Provincial Field Program Coordinator, Regional Operations Division, MNR
Andrea Fleischhauer, (A)Southern Region Renewable Energy Coordinator, Regional Operations Division, MNR
Narren Santos, Environmental Assessment and Approvals Branch, MOE
Chris Powell, Project Manager / Environmental Planner, Stantec

Appendix B

ORIGINAL NHA SIGNIFICANT NATURAL FEATURE MAPPING

595000 596000 597000 598000 599000

4751000 4750000 4749000

LINK ROAD
RICHERT ROAD
MOUNT OLIVET ROAD
MEADOWS ROAD
SUTOR ROAD
WILSON ROAD
HALDIMAND ROAD 20
Frandenburg Tract PSW 22-d

N

0 150 300 m
1:12,500

October 2011
160960577

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Stantec

Legend

- Study Area
- Zone of Investigation
- Constructable Area

Wind Project Location
- Proposed Turbine Location
- Access Road
- Overhead Collector Line
- Underground Collector Line

Solar Project Location
- Solar Lands
- Solar Panel Unit

Transmission Line
- Overhead Transmission Line
- Underground Transmission Line
- Electrical Transmission Component

Existing Features
- Road
- Railway
- Abandoned Railway
- Transmission Line (MNR)
- Watercourse (MNR)
- Waterbody (MNR)

Wetland (MNR)
- Provincially Significant Wetland
- Non-Provincially Significant Wetland

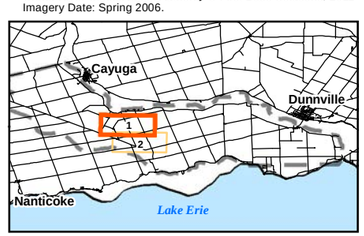
Significant Natural Features
- Significant Woodland
- Significant Wetland
- Significant Valleyland

Significant Wildlife Habitat
- Deer Wintering Area
- Habitat for Declining/Area-Sensitive Grassland Species
- Significant Winter Raptor Feeding & Roosting Habitat
- Seep
- Vernal Pool
- Rare Vegetation Community
- Snapping Turtle Habitat
- Animal Movement Corridor
- Waterfowl Stopover
- Migratory Landbird Habitat
- Habitat for Declining Woodland Species
- Area-Senstitive Species Woodland Habitat
- Short-Eared Owl Habitat

Culverts
- Wildlife & Flow Culvert
- Other Culvert

Notes

1. Coordinate System: UTM NAD 83 - Zone 17 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queens Printer Ontario, 2011; © Samsung, 2011.
3. Image Source: © Terrapoint, 2011 - Imagery Date: July 2009; Grand River Conservation Authority © First Base Solutions, 2011 - Imagery Date: Spring 2006.



Client/Project
SAMSUNG, PATTERN & KEPCO (SPK)
GRAND RENEWABLE ENERGY PARK

Figure No.
14.1

Title
SIGNIFICANT NATURAL FEATURES - S1

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October 2011
160960577

Stantec

Legend

Study Area
Zone of Investigation
Constructable Area

Wind Project Location
Proposed Turbine Location
Access Road
Overhead Collector Line
Underground Collector Line

Solar Project Location
Solar Lands
Solar Panel Unit

Transmission Line
Overhead Transmission Line
Underground Transmission Line
Electrical Transmission Component

Existing Features
Road
Railway
Abandoned Railway
Transmission Line (MNR)
Watercourse (MNR)
Waterbody (MNR)

Wetland (MNR)
Provincially Significant Wetland
Non-Provincially Significant Wetland

Significant Natural Features
Significant Woodland
Significant Wetland
Significant Valleyland

Significant Wildlife Habitat
Deer Wintering Area
Habitat for Declining/Area-Sensitive Grassland Species
Significant Winter Raptor Feeding & Roosting Habitat
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Animal Movement Corridor
Waterfowl Stopover
Migratory Landbird Habitat
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Area-Senstitive Species Woodland Habitat
Short-Eared Owl Habitat

Culverts
Wildlife & Flow Culvert
Other Culvert

Notes

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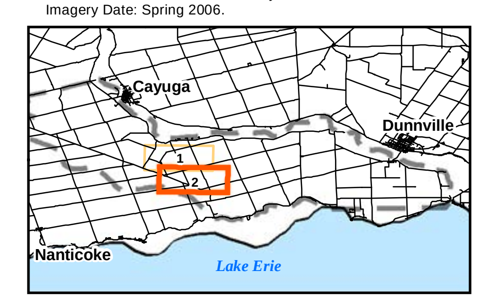

Client/Project
SAMSUNG, PATTERN & KEPCO (SPK)
GRAND RENEWABLE ENERGY PARK

Figure No.
14.2

Title
SIGNIFICANT NATURAL FEATURES - S2

Fwd: Grand Renewable Solar - re-confirmation

1 message

Petruniak, Jennifer <jpetruniak@dillon.ca> 5 July 2013 11:00
To: Megan Bellamy <mbellamy@dillon.ca>

can you file and revise amendment report to incorporate this

Jennifer Petruniak, M.Sc.
Associate
Dillon Consulting Limited
235 Yorkland Blvd Suite 800
Toronto, Ontario, M2J 4Y8
T - 416.229.4647 ext. 2432
F - 416.229.4692
M - 416.671.6825
JPetruniak@dillon.ca
www.dillon.ca

---------- Forwarded message ----------
From: **Fleischhauer, Andrea (MNR)** <Andrea.Fleischhauer@ontario.ca>
Date: Fri, Jul 5, 2013 at 10:05 AM
Subject: Grand Renewable Solar - re-confirmation
To: "doxtoby@carbonfreetechnology.com" <doxtoby@carbonfreetechnology.com>
Cc: "Petruniak, Jennifer" <jpetruniak@dillon.ca>, "Hagman, Ian (MNR)" <ian.hagman@ontario.ca>, "Guido, Sandra (ENE)" <Sandra.Guido@ontario.ca>, "Santos, Narren (ENE)" <Narren.Santos@ontario.ca>, "Romic, Zeljko (ENE)" <Zeljko.Romic@ontario.ca>

David – please see attached MNR's re-confirmation of the Grand Renewable Solar Park based on the information submitted to MNR in June 2013.

The original is in the mail.

Please contact me with any questions.

Thanks,

Andrea

Andrea Fleischhauer

A/Renewable Energy Coordinator

Southern Region Resources Section

Ministry of Natural Resources

t: (519) 773-4723

f: (519) 773-9014

2013_07_03_GRSP_Amendment_MNRreconfirm.pdf
22K

Ministry of Natural Resources

Southern Region
Planning Unit
P.O Box 7000
300 Water Street
Peterborough, ON
K9J 8M5
Tel: 705-755-3243
Fax: 705-755-3292

Ministère des Richesses naturelles

Région du Sud
P.O. Box 7000
300, rue Water
Peterborough (Ontario)
K9J 8M5
Tél.: 705-755-3243
Téléc.: 705-755-3292

Ontario

July 3, 2013

David Oxtoby
Grand Renewable Solar LP
181 University Ave., Suite 300
Toronto, ON M5H 3M7

RE: Modifications to Grand Renewable Solar Park Project

Dear Mr. Oxtoby,

The Ministry of Natural Resources (MNR) has received the document dated June 27, 2013 that describes modifications to the Grand Renewable Solar Park Project made subsequent to MNR's letter confirming the Natural Heritage Assessment in respect of the project.

Upon review of the modifications, the MNR is satisfied that the Natural Heritage Assessment requirements of Ontario Regulation 359/09 have been met. Please add this letter as an addendum to the confirmation letter issued June 30, 2011 for the Grand Renewable Solar Park Project.

If you wish to discuss, please contact Andrea Fleischhauer (andrea.fleischhauer@ontario.ca) or 519-773-4723.

Sincerely,

Andrea Fleischhauer for
Kathy Woeller
Regional Land Use Planning
Regional Operations Division, Southern Region
Ministry of Natural Resources

cc Andrea Fleischhauer, A/Southern Region Renewable Energy Coordinator, MNR
Ian Hagman, Guelph District Manager, MNR
Narren Santos, Environmental Approvals Access & Service Integration Branch, MOE
Zeljko Romic, Environmental Approvals Access & Service Integration Branch, MOE
Sandra Guido, Environmental Approvals Access & Service Integration Branch, MOE
Jennifer Petruniak, Dillon Consulting Ltd.

Appendix D

MEDIUM VOLTAGE STATION UTM COORDINATES

MVS Identifier	UTM Coordinates	
	Easting (m)	Northing (m)
Tr401	596520	4749103
Tr402	596520	4749113
Tr403	597795	4750476
Tr404	597949	4750345
Tr405	597753	4750345
Tr406	597438	4750499
Tr407	597621	4750265
Tr408	597580	4750029
Tr409	597229	4750502
Tr410	597256	4750423
Tr411	597290	4750324
Tr412	597328	4750210
Tr413	597360	4750117
Tr414	597050	4750114
Tr415	597085	4750011
Tr416	596640	4750281
Tr417	596736	4750039
Tr418	596837	4749789
Tr419	596531	4750190
Tr420	596538	4750170
Tr421	596603	4749980
Tr422	596610	4749960
Tr423	596671	4749779
Tr424	596235	4750149
Tr425	596287	4749998
Tr426	596294	4749977
Tr427	596358	4749788
Tr428	596362	4749776
Tr429	595998	4749934
Tr430	596049	4749785
Tr431	596072	4749718
Tr432	596117	4749586
Tr433	596127	4749557
Tr434	596187	4749377
Tr435	596345	4748860
Tr436	596400	4748647
Tr437	596497	4748517
Tr438	596497	4749000
Tr439	596533	4748895
Tr440	596569	4748790
Tr441	596604	4748685
Tr442	596718	4749210
Tr443	596758	4749097
Tr444	596793	4748992

MVS Identifier	UTM Coordinates	
	Easting (m)	Northing (m)
Tr445	596829	4748887
Tr446	596865	4748782
Tr447	596901	4748677
Tr448	596990	4749276
Tr449	597030	4749158
Tr450	597066	4749053
Tr451	597102	4748948
Tr452	597138	4748843
Tr453	597247	4748492
Tr454	597274	4748413
Tr455	597345	4748266
Tr456	597297	4749250
Tr457	597310	4749250
Tr458	597260	4749031
Tr459	597563	4749224
Tr460	597599	4749119
Tr461	597635	4749014
Tr462	597653	4748951
Tr463	597792	4749238
Tr464	597912	4749084
Tr465	597944	4749238

Appendix E

NOISE STUDY REPORT AND MANUFACTURER TECHNICAL SPECS.

Please see document entitled “Grand Renewable Energy Park – Noise Assessment Report Revision 3 for Grand Renewable Solar LP”, dated September 5, 2013 and provided under separate cover.