James C. Sidlofsky T 416.367.6277 F 416.361.2751 jsidlofsky@blg.com Borden Ladner Gervais LLP Scotia Plaza, 40 King St W Toronto, ON, Canada M5H 3Y4 T 416.367.6000 F 416.367.6749 blg.com



September 13, 2013

Delivered by Email and Courier

Ms. Kirsten Walli Board Secretary Ontario Energy Board 2300 Yonge Street 26th Floor, Box 2319 Toronto, ON M4P 1E4

Dear Ms. Walli:

Re: Application for Leave to Construct - EB-2013-0047

- Northland Power Solar Empire L.P.
- Northland Power Solar Martin's Meadows L.P.
- Northland Power Solar Abitibi L.P.
- Northland Power Solar Long Lake L.P.

We are counsel to Northland Power Solar Empire L.P., Northland Power Solar Martin's Meadows L.P., Northland Power Solar Abitibi L.P., and Northland Power Solar Long Lake L.P. (the "Applicants") in the above captioned matter.

Further to the Board's July 11, 2013 Decision and Order in this proceeding, please find accompanying this letter copies of the Renewable Energy Approvals in respect of the Applicants' renewable energy projects.

Should you have any questions in this regard, please do not hesitate to contact me.

Yours very truly,

BORDEN LADNER GERVAIS LLP

Per:

Original Signed by James C. Sidlofsky

James C. Sidlofsky Encl.

Copy to: R. Miller, Northland Power

TOR01: 5333740: v1



RENEWABLE ENERGY APPROVAL

NUMBER 8430-9AEQ6M Issue Date: August 29, 2013

Northland Power Solar Long Lake GP Inc., as general partner for and on behalf of Northland Power Solar Long

Lake L.P.

30 St. Clair Avenue West, 17th Floor

Toronto, Ontario M4V 3A1

Project Location: Long Lake Solar Project Lot 2 and 3, Concession 8

Calder Unorganized Township, District of Cochrane

You have applied in accordance with Section 47.4 of the <u>Environmental Protection Act</u> 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 10 megawatts (AC).

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 "Long Lake Solar Project, Noise Assessment Study Report", dated August 8, 2013, prepared by Hatch and signed by Kyle Cassidy and Mervyn Choy, P.Eng.;
- 2. "Acoustic Audit" means an investigative procedure consisting of measurements and/or acoustic modelling of all sources of noise emissions due to the operation of the Equipment, assessed to determine compliance with the Noise Performance Limits set out in this Approval;
- 3. "Acoustic Audit Report" means a report presenting the results of an Acoustic Audit;
- 4. "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;

- 5. "Act" means the *Environmental Protection Act*, R.S.O 1990, c.E.19, as amended;
- 6. "Adverse Effect" has the same meaning as in the Act;
- 7. "Application" means the application for a Renewable Energy Approval dated October 22, 2012, and signed by John Brace, President and CEO, Northland Power Solar Long Lake GP Inc., as general partner for and on behalf of Northland Power Solar Long Lake L.P., and all supporting documentation submitted with the application, including amended documentation submitted up to the date that the Renewable Energy Approval was issued;
- 8. "Approval" means this Renewable Energy Approval issued in accordance with Section 47.4 of the Act, including any schedules to it;
- 9. "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";
- 10. "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";
- 11. "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";
- 12. "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.

- 13. "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.
- 14. "Company" means Northland Power Solar Long Lake GP Inc., as general partner for and on behalf of Northland Power Solar Long Lake L.P., the partnership under the laws of Ontario, and includes its successors and assignees;
- 15. "Decibel" means a dimensionless measure of Sound Level or Sound Pressure Level, denoted as dB;
- 16. "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;
- 17. "District Manager" means the District Manager of the appropriate local district office of the Ministry where the Facility is geographically located;
- 18. "Equipment" means the inverters, transformers, and one (1) transformer substation, and associated ancillary equipment identified in this Approval and as further described in the Application, to the extent approved by this Approval;
- 19. "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);
- 20. "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;
- 21. "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;
- 22. "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;

- 23. "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;
- 24. "O. Reg. 359/09" means Ontario Regulation 359/09 "Renewable Energy Approvals under Part V.0.1 of the Act" made under the Act;
- 25. "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;
- 26. "Publication NPC-103" means the Ministry Publication NPC-103, "Procedures", August 1978;
- 27. "Publication NPC-104" means the Ministry Publication NPC-104, "Sound Level Adjustments", August 1978;
- 28. "Publication NPC-205" means the Ministry Publication NPC-205, "Sound Level Limits for Stationary Sources in Class 1 & 2 Areas (Urban)", October 1995;
- 29. "Publication NPC-232" means the Ministry Publication NPC-232, "Sound Level Limits for Stationary Sources in Class 3 Areas (Rural)", October 1995;
- 30. "Publication NPC-233" means the Ministry Publication NPC-233, "Information to be Submitted for Approval of Stationary Sources of Sound", October 1995;
- 31. "Sound Level" means the A-weighted Sound Pressure Level;
- 32. "Sound Level Limit" is the limiting value described in terms of the one hour A-weighted Equivalent Sound Level L_{eq} ;
- 33. "Sound Power Level" means 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;
- 34. "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);
- 35. "Sound Pressure Level" means twenty times the logarithm to the base 10 of the ratio of the effective pressure (μ Pa) of a sound to the reference pressure of 20 μ Pa;
- 36. "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:
 - (a) Schedule A Facility Description
 - (b) 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 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.
- A8. 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 its plans for the decommissioning of the Facility, and follow any reasonable directions provided by that ministry in respect of the Company's plans to restore the project location to its previous agricultural capacity.

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 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 C1(1), and
 - ii) all setback prohibitions established under O. Reg. 359/09 are complied with; and
 - (3) the Equipment complies with the noise specifications set out in Schedule B of this Approval
- C2. Prior to construction and installation of the transformer substation the Company shall submit to the Director a written confirmation signed by an individual who has the authority to bind the Company that the subject transformer substation sound power levels do not exceed the maximum sound power levels specified in the Schedule B of the Approval.
- C3. If the Company determines that some or all of the Equipment cannot be constructed in accordance with Condition 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.

C4. 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 C1(2).

D - ACOUSTIC AUDIT

D1. The Company shall carry out an Acoustic Audit 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 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

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 report included in the Application.

G-WATER TAKING ACTIVITIES

G1. The Company shall not take more than 50,000 litres of water on any day by any means during the construction, installation, use, operation, maintenance and retiring of the Facility.

H - SEWAGE WORKS OF THE TRANSFORMER SUBSTATION SPILL CONTAINMENT FACILITY

H1. The Company shall design and construct a transformer/substation spill containment facility which meets the following requirements:

- (1) the spill containment area serving the transformer substation shall have a minimum volume equal to the volume of transformer oil and lubricants plus the volume equivalent to providing a minimum 24-hour duration, 50-year return storm capacity for the stormwater drainage area around the transformer under normal operating conditions;
- (2) the containment facility shall have an impervious concrete floor and walls or impervious plastic liner on floor and walls, sloped toward an outlet, maintaining a freeboard of approximately 0.25 metres terminating approximately 0.30 metres above grade, and a minimum 300mm layer of crushed stoned (19mm to 38mm in diameter) within, all as needed in accordance to site specific conditions and final design parameters;
- (3) the containment facility 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
- the oil control device shall be equipped with an oil detection system and appropriate sewage appurtenances, such as, but not limited to: sump, oil/grit separator, pumpout manhole, level controllers, floating oil sensors, etc., that allows for batch discharges or direct discharges and for proper implementation of the monitoring program described in Condition No. 4.

H2. The Company shall:

- (1) prior to the construction of the transformer substation spill containment facility, provide the District Manager and Director a report and drawings issued for construction signed and stamped by an independent Professional Engineer licensed in Ontario and competent in electrical engineering;
- (2) within six (6) months of the completion of the construction of the transformer substation spill containment facility, provide the District Manager and Director a report and drawings issued for construction signed and stamped by an independent Professional Engineer licensed in Ontario which includes the following:
 - (a) as-built drawings of the sewage works;
 - (b) confirmation that the transformer substation spill containment facility has been designed and installed according to appropriate specifications; and
 - (c) confirmation of the adequacy of the operating procedures and the emergency procedures manuals as it pertains to the installed sewage works.
- (3) as a minimum, check the oil detection system on a monthly basis and create a written record of the inspections;
- (4) ensure that the effluent 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;
- (5) immediately identify and clean-up all losses of oil from the transformer;

- (6) upon identification of oil in the effluent pumpout, take immediate action to prevent the further occurrence of such loss; and
- (7) ensure that equipment and material for the containment, clean-up and disposal of oil and materials contaminated with oil are kept within easy access and in good repair for immediate use in the event of:
 - (a) loss of oil from the transformer,
 - (b) a spill within the meaning of Part X of the Act, or
 - (c) the identification of an abnormal amount of oil in the effluent.
- H3. The Company shall design, construct and operate the sewage works 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

- (1) notify the District Manager as soon as reasonably possible of any exceedance of the maximum concentration objective set out in the table above;
- (2) take immediate action to identify the cause of the exceedance; and
- (3) take immediate action to prevent further exceedances.
- H4. Upon commencement of the operation of the Facility, the Company shall establish and carry out the following monitoring program for the sewage works:
 - (1) the Company shall collect and analyze the required set of samples at the sampling points listed in the table below in accordance with the measurement frequency and sample type specified for the effluent parameter, oil and grease, and create a written record of the monitoring:

Effluent Parameters	Measurement Frequency and Sample Points	Sample Type
Oil and Grease	B – Batch, i.e., for each discrete volume in the sewer	Grab
	appurtenance as per H1(4) prior to pumpout; or	
	Q – Quarterly for direct effluent discharge, i.e., four	
	times over a year, relatively evenly spaced.	

- (2) in the event of an exceedance of the maximum concentration objective set out in the table in Condition No. H3, the Company shall:
 - (a) increase the frequency of sampling to once per month, for each month that effluent discharge occurs, and

- (b) provide the District Manager, on a monthly basis, with copies of the written record created for the monitoring until the District Manager provides written direction that monthly sampling and reporting is no longer required; and
- (3) if over a period of twenty-four (24) months of effluent monitoring under Condition No. 4(1), there are no exceedances of the maximum concentration set out in the table in Condition No. 3, the Company may reduce the measurement frequency of effluent monitoring to a frequency as the District Manager may specify in writing, provided that the new specified frequency is never less than annual.
- H5. The Company shall comply with the following methods and protocols for any sampling, analysis and recording undertaken in accordance with Condition No. 4:
 - (1) Ministry of the Environment publication "Protocol for the Sampling and Analysis of Industrial/ Municipal Wastewater", January 1999, as amended from time to time by more recently published editions, and
 - (2) the publication "Standard Methods for the Examination of Water and Wastewater", 21st edition, 2005, as amended from time to time by more recently published editions.

I - TRAFFIC MANAGEMENT PLANNING

- II. Within three (3) months of receiving this Approval, the Company shall prepare a Traffic Management Plan and provide it to the Hunta Local Roads Board.
- I2. Within three (3) months of having provided the Traffic Management Plan to the Hunta Local Roads Board, the Company shall make reasonable efforts to enter into a Road Users Agreement with the Hunta Local Roads Board.
- If a Road Users Agreement has not been signed with the Hunta Local Roads Board within three (3) months of having provided the Traffic Management Plan to the Hunta Local Roads Board, the Company shall provide a written explanation as to why this has not occurred.

J - ARCHAEOLOGICAL RESOURCES

- J1. 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, Culture and Sport in order to comply with clause 22 (2) (b) of O. Reg. 359/09.
- J2. 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, Culture and Sport's *Standards and Guidelines for Consultant Archaeologists*; and
- (3) notify the Director as soon as reasonably possible.

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 K1; and
 - (2) make the manual described in Condition 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 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 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 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 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.

SCHEDULE A

Facility Description

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

- (a) Fourteen (14) arrays of photovoltaic (PV) modules or panels combined with a total inverter name plate capacity of up to approximately ten (10) megawatt (AC), with each pair of arrays containing a cluster consisting of two (2) 800 kilowatt inverters and one (1) medium-voltage 360 volt/27.6 kilovolt/1.6 megavolt ampere transformer, for a total of seven (7) clusters; and
- (b) associated ancillary equipment, systems and technologies including, but not limited to, one (1) 27.6 kilovolt/115 kilovolt/10 megavolt ampere transformer substation, on-site access roads, below and above grade cabling, and below and above grade distribution and transmission lines,

all in accordance with the Application.

SCHEDULE B

Coordinates of the Equipment and Noise Specifications

Coordinates of the Equipment are listed below in UTM, Z17-NAD83 projection:

Source	Maximum Sound	Easting	Northing	Source Description
ID	Power Level (dBA)	(m)	(m)	
Inv1	91.3	479,487.2	5,443,342.6	Two Inverters: See Table B2 below
Inv2	91.3	479,487.2	5,443,141	Two Inverters: See Table B2 below
Inv3	91.3	479,233.8	5,443,230.6	Two Inverters: See Table B2 below
Inv4	91.3	479,233.8	5,443,029.0	Two Inverters: See Table B2 below
Inv5	91.3	478,982.5	5,443,085.0	Two Inverters: See Table B2 below
Inv6	91.3	478,982.5	5,443,286.6	Two Inverters: See Table B2 below
Inv7	91.3	478,982.5	5,443,488.2	Two Inverters: See Table B2 below
Trans1	84.1	479,481.7	5,443,342.1	Transformer: See Table B3 below
Trans2	84.1	479,481.7	5,443,140.5	Transformer: See Table B3 below
Trans3	84.1	479,228.3	5,443,230.1	Transformer: See Table B3 below
Trans4	84.1	479,228.3	5,443,028.5	Transformer: See Table B3 below
Trans5	84.1	478,988.0	5,443,084.5	Transformer: See Table B3 below
Trans6	84.1	478,988.0	5,443,286.1	Transformer: See Table B3 below
Trans7	84.1	478,988.0	5,443,487.7	Transformer: See Table B3 below
Sub	93.4	479,583.5	5,443,554.4	Transformer Substation: See Table B4 below

Table B2: Maximum Sound Power Spectrum (dB Lin) of Inverter

Ito		Octave Band Centre Frequency (Hz)							
Inverter	63	125	250	500	1000	2000	4000	8000	
Lw (dB Lin)	91.3	92	91.1	87.5	80.7	74.9	66	75.8	

Table B3: Maximum Sound Power Spectrum (dB Lin) of Transformer

Tunneformer		Octave Band Centre Frequency (Hz)							
Transformer	63	125	250	500	1000	2000	4000	8000	
Lw (dB Lin)	86.7	88.7	83.7	83.7	75.7	72.7	67.7	60.7	

Table B4: Maximum Sound Power Spectrum (dB Lin) of Transformer Substation

Tunneformer Substation	Octave Band Centre Frequency (Hz)							
Transformer Substation	63	125	250	500	1000	2000	4000	8000
Lw (dB Lin)	96	98	93	93	87	82	77	70

Note: Each Sound Power Level value in all the above tables includes the 5 decibel (dB) adjustment for tonality as prescribed in Publication NPC-104.

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

- 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 A8 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 A7 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. Conditions C1 and C2 are 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 Publication NPC-232.
- 7. Conditions C3 and C4 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, Publication NPC-232 and this Approval can be verified.
- 9. Conditions E, F, G, H and I 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 J is included to protect archaeological resources that may be found at the project location.
- 11. 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.
- 12. 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.

- 13. Condition M are 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.
- 14. 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.

NOTICE REGARDING HEARINGS

In accordance with Section 139 of the <u>Environmental Protection Act</u>, 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 <u>Environmental Bill of Rights, 1993</u>, the Environmental Commissioner will place notice of your request for a hearing on the Environmental Registry.

Section 142 of the <u>Environmental Protection Act</u> 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 <u>each</u> 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* The Environmental Commissioner The Director Environmental Review Tribunal 1075 Bay Street, 6th Floor Section 47.5, Environmental Protection Act 655 Bay Street, 15th Floor Suite 605 Ministry of the Environment 2 St. Clair Avenue West, Floor 12A Toronto, Ontario AND Toronto, Ontario AND M5G 1E5 M5S 2B1 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 <u>Environmental Protection Act</u>, 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 <u>Environmental Protection Act</u> subject to the terms and conditions outlined above.

DATED AT TORONTO this 29th day of August, 2013

Vic Schroter, P.Eng.

Director

Section 47.5, Environmental Protection Act

RA/

c: District Manager, MOE Timmins Sean Male, Hatch



RENEWABLE ENERGY APPROVAL

NUMBER 1290-9A4KSE Issue Date: August 29, 2013

Northland Power Solar Abitibi GP Inc., as general partner for and on behalf of Northland Power Solar Abitibi L.P., and Northland Power Solar Empire GP Inc., as general partner for and on behalf of Northland Power Solar Empire L.P., and Northland Power Solar Martin's Meadows GP Inc., as general partner for and on behalf of Northland Power Solar Martin's Meadows L.P. 30 St. Clair Ave W 17th Floor Toronto, Ontario

M4V 3A1

Project

Cochrane Solar Project

Location:

Lot Parts of 17, 18, Concession 7; Lot Parts of 14, 15, 16,

Concession 8

Cochrane Town, District of Cochrane

POL 1CO

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 30 megawatts (AC).

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 Cochrane Solar Project - Noise Assessment Study Report, dated August 8, 2013, prepared by Hatch and signed by Kyle Cassidy and Mervyn Choy, Hatch Limited;
- 2. "Act" means the Environmental Protection Act, R.S.O 1990, c.E.19, as amended;
- 3. "Adverse Effect" has the same meaning as in the Act;

- 4. "Application" means the application for a Renewable Energy Approval dated February 7, 2013, and signed by John Brace, President & CEO, Northland Power Solar Abitibi GP Inc., as general partner for and on behalf of Northland Power Solar Abitibi L.P., and Northland Power Solar Empire GP Inc., as general partner for and on behalf of Northland Power Solar Empire L.P., and Northland Power Solar Martin's Meadows GP Inc., as general partner for and on behalf of Northland Power Solar Martin's Meadows L.P., and all supporting documentation submitted up to the date that the Renewable Energy Approval was issued;
- 5. "Approval" means this Renewable Energy Approval issued in accordance with Section 47.4 of the Act, including any schedules to it;
- 6. "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";
- 7. "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";
- 8. "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";
- 9. "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.
- 10. "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.

- 11. "Company" means Northland Power Solar Abitibi GP Inc., as general partner for and on behalf of Northland Power Solar Abitibi L.P., and Northland Power Solar Empire GP Inc., as general partner for and on behalf of Northland Power Solar Empire L.P., and Northland Power Solar Martin's Meadows GP Inc., as general partner for and on behalf of Northland Power Solar Martin's Meadows L.P., the partnerships under the laws of Ontario, and includes their successors and assignees;
- 12. "Decibel" means a dimensionless measure of Sound Level or Sound Pressure Level, denoted as dB;
- 13. "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;
- 14. "District Manager" means the District Manager of the appropriate local district office of the Ministry where the Facility is geographically located;
- 15. "Equipment" means the inverters, transformers, and a transformer substation, and associated ancillary equipment identified in this Approval and as further described in the Application, to the extent approved by this Approval;
- 16. "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_m and is measured in A-weighted decibels (dBA);
- 17. "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;
- 18. "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;
- 19. "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;
- 20. "Noise Receptor" has the same meaning as in O. Reg. 359/09;
- 21. "O. Reg. 359/09" means Ontario Regulation 359/09 "Renewable Energy Approvals under Part V.0.1 of the Act" made under the Act;
- 22. "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;
- 23. "Publication NPC-103" means the Ministry Publication NPC-103, "Procedures", August 1978;
- 24. "Publication NPC-104" means the Ministry Publication NPC-104, "Sound Level Adjustments", August 1978;

- 25. "Publication NPC-232" means the Ministry Publication NPC-232, "Sound Level Limits for Stationary Sources in Class 3 Areas (Rural)", October 1995;
- 26. "Sound Level" means the A-weighted Sound Pressure Level;
- 27. "Sound Level Limit" is the limiting value described in terms of the one hour A-weighted Equivalent Sound Level L_{en};
- 28. "Sound Power Level" means 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;
- 29. "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);
- 30. "Sound Pressure Level" means twenty times the logarithm to the base 10 of the ratio of the effective sound pressure (μPa) of a sound to the reference pressure of 20 μPa;
- 31. "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:
 - (a) Schedule A Facility Description
 - (b) 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 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.
- A8. 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 its plans for the decommissioning of the Facility, and follow any reasonable directions provided by that ministry in respect of the Company's plans to restore the project location to its previous agricultural capacity.

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 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 C1 (a), 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.
- C2. Prior to construction and installation of the transformer substation the Company shall submit to the Director a written confirmation signed by an individual who has the authority to bind the Company that the subject transformer substation sound power levels do not exceed the maximum sound power levels specified in the Schedule B of the Approval.
- C3. If the Company determines that some or all of the Equipment cannot be constructed in accordance with Condition 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.
- C4. 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 C1(2).

D - GROUNDWATER MONITORING

- D1. 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 D1(1).
- D2. 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.

E - STORMWATER MANAGEMENT

- E1. Prior to the construction and installation of the Facility, the Company shall:
 - (a) prepare a stormwater management plan which shall include best management practices for stormwater management during the construction, installation, use, operation, maintenance and retiring of the Facility;
 - (b) prepare an erosion and sediment control plan which shall include best management practices for sediment and erosion control during the construction, installation, use, operation, maintenance and retiring of the Facility;
 - (c) provide the stormwater management plan and erosion and sediment control plan to the District Manager;
 - (d) implement the stormwater management plan and erosion and sediment control plan.

F - WATER TAKING ACTIVITIES

F1. The Company shall not take more than 50,000 litres of water on any day by any means during the construction, installation, use, operation, maintenance and retiring of the Facility.

G - SEWAGE WORKS OF THE TRANSFORMER SUBSTATION SPILL CONTAINMENT FACILITY

- G1. The Company shall design and construct a transformer substation spill containment facility which meets the following requirements:
 - (1) the spill containment area serving the transformer substation shall have a minimum volume equal to the volume of transformer oil and lubricants plus the volume equivalent to providing a minimum 24-hour duration, 50-year return storm capacity for the stormwater drainage area around the transformer under normal operating conditions;
 - (2) the containment facility shall have an impervious concrete floor and walls or impervious plastic liner on floor and walls, sloped toward an outlet, maintaining a freeboard of approximately 0.25 metres terminating approximately 0.30 metres above grade, and a minimum 300mm layer of crushed stoned (typical 19mm to 38mm in diameter) within, all as needed in accordance to site specific conditions and final design parameters;
 - (3) the containment facility 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

(4) the oil control device shall be equipped with an oil detection system and appropriate sewage appurtenances, such as, but not limited to: sump, oil/grit separator, pumpout manhole, level controllers, floating oil sensors, etc., that allows for batch discharges or direct discharges and for proper implementation of the monitoring program described in Condition G4.

G2. The Company shall:

- prior to the construction of the transformer substation spill containment facility, provide the
 District Manager and Director a report and drawings issued for construction signed and stamped by
 an independent Professional Engineer licensed in Ontario and competent in electrical engineering;
- (2) within six (6) months of the completion of the construction of the transformer substation spill containment facility, provide the District Manager and Director a report and drawings issued for construction signed and stamped by an independent Professional Engineer licensed in Ontario which includes the following:
 - a) as-built drawings of the sewage works;
 - b) confirmation that the transformer substation spill containment facility has been designed and installed according to appropriate specifications; and
 - c) confirmation of the adequacy of the operating procedures and the emergency procedures manuals as it pertains to the installed sewage works.
- (3) as a minimum, check the oil detection system on a monthly basis and create a written record of the inspections;
- (4) ensure that the effluent 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;
- (5) immediately identify and clean-up all losses of oil from the transformer;
- (6) upon identification of oil in the effluent pumpout, take immediate action to prevent the further occurrence of such loss; and
- (7) ensure that equipment and material for the containment, clean-up and disposal of oil and materials contaminated with oil are kept within easy access and in good repair for immediate use in the event of:
 - a) loss of oil from the transformer,
 - b) a spill within the meaning of Part X of the Act, or
 - c) the identification of an abnormal amount of oil in the effluent.
- G3. The Company shall design, construct and operate the sewage works 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

- (1) notify the District Manager as soon as reasonably possible of any exceedance of the maximum concentration objective set out in the table above;
- (2) take immediate action to identify the cause of the exceedance; and
- (3) take immediate action to prevent further exceedances.
- G4. Upon commencement of the operation of the Facility, the Company shall establish and carry out the following monitoring program for the sewage works:
 - (1) the Company shall collect and analyze the required set of samples at the sampling points listed in the table below in accordance with the measurement frequency and sample type specified for the effluent parameter, oil and grease, and create a written record of the monitoring:

Effluent Parameters	Measurement Frequency and Sample Points
	B – Batch, i.e., for each discrete volume in the sewer appurtenance as per
	G1(4) prior to pumpout; or
Oil and Grease	
3,200,000,000,000,000,000,000,000,000,00	Q – Quarterly for direct effluent discharge, i.e., four times over a year,
	relatively evenly spaced.

- in the event of an exceedance of the maximum concentration objective set out in the table in Condition G3, the Company shall:
 - (a) increase the frequency of sampling to once per month, for each month that effluent discharge occurs, and
 - (b) provide the District Manager, on a monthly basis, with copies of the written record created for the monitoring until the District Manager provides written direction that monthly sampling and reporting is no longer required; and
- if over a period of twenty-four (24) months of effluent monitoring under Condition G4(1), there are no exceedances of the maximum concentration set out in the table in Condition G3, the Company may reduce the measurement frequency of effluent monitoring to a frequency as the District Manager may specify in writing, provided that the new specified frequency is never less than annual.
- G5. The Company shall comply with the following methods and protocols for any sampling, analysis and recording undertaken in accordance with Condition G4:

- (1) Ministry of the Environment publication "Protocol for the Sampling and Analysis of Industrial/ Municipal Wastewater", January 1999, as amended from time to time by more recently published editions, and
- (2) the publication "Standard Methods for the Examination of Water and Wastewater", 21st edition, 2005, as amended from time to time by more recently published editions.

H - TRAFFIC MANAGEMENT PLANNING

- H1. Within three (3) months of receiving this Approval, the Company shall prepare a Traffic Management Plan and provide it to the Municipality, including any relevant Boards.
- H2. Within three (3) months of having provided the Traffic Management Plan to the Municipality, including any relevant Boards, the Company shall make reasonable efforts to enter into a Road Users Agreement with the Municipality, including any relevant Boards.
- H3. If a Road Users Agreement has not been signed with the Municipality, including any relevant Boards, within three (3) months of having provided the Traffic Management Plan to the Municipality, including any relevant Boards, the Company shall provide a written explanation as to why this has not occurred.

I - ARCHAEOLOGICAL RESOURCES

- 11. 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, Culture and Sport in order to comply with clause 22 (2) (b) of O. Reg. 359/09.
- 12. 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, Culture and Sport's *Standards and Guidelines for Consultant Archaeologists*; and
 - (3) notify the Director as soon as reasonably possible.

J-NATURAL HERITAGE

GENERAL

- J1. The Company shall implement the following:
 - (1) the commitments made in the Natural Heritage Environmental Impact Study Report Abitibi Solar Project, dated October 18, 2012, and included in the Application;
 - (2) the commitments made in the Natural Heritage Environmental Impact Study Report Empire Solar Project, dated October 18, 2012, and included in the Application;
 - (3) the commitments made in the Natural Heritage Environmental Impact Study Report Martin's Meadows Solar Project, dated October 18, 2012, and included in the Application.

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 K1; and
 - (2) make the manual described in Condition 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 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 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
 - 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 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 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.

SCHEDULE A

Facility Description

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

- (a) a total of twenty one (21) out of twenty five (25) arrays of photovoltaic (PV) modules or panels combined with a total inverter name plate capacity of up to approximately 30 megawatts (AC), with each array containing one (1) cluster consisting of two (2) inverters (each inverter with the maximum power rating of 800 kilowatts (AC)), and one (1) 27.6 kV/1.6-MVA transformer;
- (b) one (1) transformer substation rated at 30 MVA; and
- (c) associated ancillary equipment, systems and technologies including on-site access roads, underground cabling and overhead transmission line,

all in accordance with the Application.

SCHEDULE B

Coordinates of the Equipment and Noise Specifications

Coordinates of the Equipment are listed below in UTM, Z17-NAD83 projection:

Source ID	Maximum Sound Power Level (dBA)	Easting (m)	Northing (m)	Source Description
NS-1	92.1	501819.2	5442662.7	Inverter cluster: See Table B2 below
NS-2	92.1	501819.2	5442841.9	Inverter cluster: See Table B2 below
NS-3	92.1	501819.2	5443021.1	Inverter cluster: See Table B2 below
NS-4	92.1	501819.2	5443200.3	Inverter cluster: See Table B2 below
NS-5	92.1	502229.5	5442875.5	Inverter cluster: See Table B2 below
NS-6	92.1	502229.5	5443065.9	Inverter cluster: See Table B2 below
NS-7	92.1	502229.5	5443256.3	Inverter cluster: See Table B2 below
NS-8	92.1	500755.0	5441418.9	Inverter cluster: See Table B2 below
NS-9	92.1	499998.2	5441665.3	Inverter cluster: See Table B2 below
NS-10	92.1	499998.2	5441505.2	Inverter cluster: See Table B2 below
NS-11	92.1	500557.9	5441519.7	Inverter cluster: See Table B2 below
NS-12	92.1	500755.0	5441687.7	Inverter cluster: See Table B2 below
NS-13	92.1	500521.7	5441732.5	Inverter cluster: See Table B2 below
NS-14	92.1	500755.0	5441956.5	Inverter cluster: See Table B2 below
NS-15	92.1	500503.6	5441900.5	Inverter cluster: See Table B2 below
NS-16	92.1	500503.6	5442057.3	Inverter cluster: See Table B2 below
NS-17	92.1	500467.4	5442281.3	Inverter cluster: See Table B2 below
NS-18	92.1	500646.4	5442281.3	Inverter cluster: See Table B2 below
NS-19	92.1	501216.5	5443158.2	Inverter cluster: See Table B2 below
NS-20	92.1	501234.6	5442979.0	Inverter cluster: See Table B2 below
NS-21	92.1	501234.6	5442777.4	Inverter cluster: See Table B2 below
NS-22	92.1	501234.6	5442575.8	Inverter cluster: See Table B2 below
NS-23	92.1	500983.2	5442553.4	Inverter cluster: See Table B2 below
NS-24	92.1	500983.2	5442755.0	Inverter cluster: See Table B2 below
NS-25	92.1	500983.2	5442956.6	Inverter cluster: See Table B2 below
NS-26	90.7	500993.6	5443536.3	Transformer Substation: See Table B3 below

Table B2: Maximum Sound Power Spectrum (dB Lin) of the Inverter Clusters

Inverter Cluster	Octave Band Centre Frequency (Hz)							
inverter Cluster	63	125	250	500	1000	2000	4000	8000
Lw (dB Lin)	95.0	95.9	94.5	91.3	84.7	79.0	71.4	78.8

Table B3: Maximum Sound Power Spectrum (dB Lin) of the Transformer Substation

Transformer Substation	Octave Band Centre Frequency (Hz)							
Transformer Substation	63	125	250	500	1000	2000	4000	8000
Lw (dB Lin)	93.3	95.3	90.3	90.3	84.3	79.3	74.3	67.3

Note: The Inverter Clusters Sound Power Level values in the above tables correspond to the combined output of the inverters and transformers.

Each Sound Power Level value in all the above tables, for all the Inverter Clusters and the Transformer Substation, includes the 5 decibel (dB) adjustment for tonality as prescribed in Publication NPC-104.

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

- 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.
- Conditions A5, A6 and A8 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 A7 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. Conditions C1 and C2 are 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 Publication NPC-232.

- 7. Conditions C3 and C4 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. Conditions D, E, F, G, H, and J 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.
- 9. Condition I is included to protect archaeological resources that may be found at the project location.
- 10. 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.
- 11. 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.
- 12. Condition M are 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.
- 13. 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.

NOTICE REGARDING HEARINGS

In accordance with Section 139 of the <u>Environmental Protection Act</u>, 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 <u>Environmental Bill of Rights, 1993</u>, the Environmental Commissioner will place notice of your request for a hearing on the Environmental Registry.

Section 142 of the <u>Environmental Protection Act</u> 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:

<u>AND</u>

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

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

M5S 2B1

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

The Director

AND

* 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 <u>Environmental Protection Act</u>, 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 <u>Environmental Protection Act</u> subject to the terms and conditions outlined above.

DATED AT TORONTO this 29th day of August, 2013

Vic Schroter, P.Eng.

Director

Section 47.5, Environmental Protection Act

RA/

c: District Manager, MOE Timmins Sean Male, Hatch