

Ministry of the Environment
and Climate Change
Ottawa District Office
2430 Don Reid Drive, Suite 103
Ottawa Ontario
K1H 1E1
613-521-3450 or 1-800-860-2195
Fax: 613-521-5437

Ministère de l'Environnement et de
l'Action en matière de changement climatique
Bureau du district d'Ottawa
2430, promenade Don Reid, Unité 103
Ottawa (Ontario)
K1H 1E1
613-521-3450 ou 1-800-860-2195
Télééc.: 613-521-5437



December 1, 2016

BY E-MAIL

Bruce Wick
Plant Manager
TransCanada Energy Ltd.
Royal Bank Plaza, South Tower,
200 Bay Street, 24th Floor, P.O. box 43
Toronto, ON M5J 2J1

Dear Mr. Wick:

Re: Request to Change Effluent Monitoring Frequency Associated with Renewable Energy Approvals (REA) for the Mississippi Mills Solar Park (MM), William Rutley Solar facility (WR) and Burritts Rapids Solar Energy Park (BR).

The Ottawa District Office has reviewed your requests to amend the Oil and Grease effluent monitoring frequency of the transformer substation spill containment facilities at the above-referenced solar sites from quarterly to biannual. The REAs for each facility authorizes the local District Manager of the Ministry of the Environment and Climate Change to change the effluent monitoring frequency provided that the effluent has been monitored for a period of over 24 months, there are no effluent exceedances of the maximum concentration set out in the REAs and the requests in writing have specified that the monitoring frequency is never less than annual.

Based on the review of the monitoring and sample results for the MM and BR solar sites and in accordance with Conditions G4(c) of REA 9694-8X9J7X and G4(3) of REA 6691-8VMRLG, I hereby authorize changes to the effluent monitoring frequency as detailed in your of October 5 and 27, 2016 letters.

As for the WR solar site, once the 24 month effluent monitoring has been completed with no exceedances of the maximum concentrations as per the REA 2663-8P2TWB, it is recommended that you re-submit a request to reduce the effluent monitoring frequency.

Please be aware that this approval to reduce the effluent monitoring frequency is subject to change should conditions at the sites change.

If you have any questions, please contact me at 613-521-3450 extension 224 or Jena Leavoy at extension 236.

Yours truly,

A handwritten signature in black ink, appearing to read "Steve Burns".

Steve Burns
Ottawa District Manager

AMENDMENT TO RENEWABLE ENERGY APPROVALNUMBER 6691-8VMRLG
Issue Date: June 17, 2015TransCanada Energy Ltd.
200 Bay Street 24th Fl.
Royal Bank Plaza South Tower
Toronto, Ontario
M5J 2J1Site Location: 4639 Donnelly Drive
Ottawa City, Ontario

You are hereby notified that I have amended Approval No. 6691-8VMRLG issued on August 14, 2012 for a Class 3 solar facility , as follows:

A. The Company name and address has been changed:FROM: 2225249 Ontario Inc.
545 Speedvale Ave. W.
Guelph, Ontario
N1K 1E6TO: TransCanada Energy Ltd.
200 Bay Street, 24th Floor
Royal Bank Plaza South Tower
Toronto, Ontario
M5J 2J1

B. The definition of the "Application" and "Company" are deleted and replaced with the following:

7. "Application" means the application for a Renewable Energy Approval dated January 9, 2012, and signed by Milfred Hammerbacher, Director, Canadian Solar Solutions Inc., on behalf of 2225249 Ontario Inc. and all of supporting documentation submitted with the application, including amended documentation submitted up to August 14, 2012; and as further amended by the application for an amendment to a Renewable Energy Approval dated December 12, 2012 and signed by Colin Parkin, and all supporting documentation submitted with the application up to August 22, 2013; and as further amended by the application for an amendment to a Renewable Energy Approval dated January 9, 2015 and signed by Christine Cinnamon, Environmental Manager, TransCanada Energy Ltd., and all supporting documentation submitted with the application up to April 2, 2015;

14. "Company" means TransCanada Energy Ltd. and includes its successors and assignees;

All other Terms and Conditions remain the same.

This Notice shall constitute part of the approval issued under Approval No. 6691-8VMRLG dated August 14, 2012.

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*

The Environmental Commissioner

The Director

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

AND

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

AND

Section 47.5, *Environmental Protection Act*
Ministry of the Environment and Climate
Change
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 17th day of June, 2015



Mohsen Keyvani, P.Eng.
Director
Section 47.5, *Environmental Protection Act*

RA/

c: District Manager, MOECC Ottawa
Christine Cinnamon, TransCanada Energy Ltd.



AMENDMENT TO RENEWABLE ENERGY APPROVAL

NUMBER 6691-8VMRLG
Issue Date: August 22, 2013

2225249 Ontario Inc.
545 Speedvale Ave. W.
Guelph, Ontario N1K 1E6

Site Location: 4639 Donnelly Drive
Lot 28, Concession 1, Part 1, Ref. #4R-12727
City of Ottawa

You are hereby notified that I have amended Approval No.6691-8VMRLG issued on August 14, 2012 for a Class 3 solar facility, as follows:

A. The address of the Company is deleted and replaced with the following:

545 Speedvale Ave. W.
Guelph, Ontario N1K 1E6

B. The definition of Acoustic Assessment Report on page 1 of the Approval is deleted and replaced with the following:

1. "Acoustic Assessment Report" means the report included in the Application and entitled "Canadian Solar - 7 MW Solar Farm Burritts Rapids, Ontario-Acoustic Assessment Report" prepared by Stantec Consulting Ltd. dated January 22, 2013 and signed by Keni Mallinen, EIT and Kana Ganesh, P.Eng.

C. The definition of Application on page 2 of the Approval is deleted and replaced with the following:

7. "Application" means the application for a Renewable Energy Approval dated January 9, 2012, and signed by Milfred Hammerbacher, Director, Canadian Solar Solutions Inc., on behalf of 2225249 Ontario Inc. and all of supporting documentation submitted with application, including amended documentation submitted up to August 14, 2012, and as further amended by the application for an amendment to a Renewable Energy Approval dated December 12, 2012 and signed by Colin Parkin, and all supporting documentation submitted with the application up to the date this amendment is issued;

D. The definition of Noise Control Measures on page 3 of the Approval is deleted and replaced with the following:

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;

E. Condition A1 is deleted and replaced with the following:

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

F. Condition C1 is deleted and replaced with the following:

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.

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

G. Conditions F1, F2 and F3 are deleted and replaced with the following:

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, and follow recommendations included in the Stormwater Management Report, dated March 19, 2013 prepared by Stantec Consulting Ltd.

F2. The Company shall ensure that the stormwater management works for the collection, transmission, treatment and disposal of stormwater runoff from the various catchment areas for the Facility are constructed as proposed including construction of the two stormwater management ponds described below, as well as triangular grass swales along interior roads, along with re-establishment of locally grown and low maintenance vegetation on all disturbed areas with the exception of roadways and prefabricated structures. The ponds are to be designed for the attenuation of post-development stormwater runoff flows to pre-development levels for the 5-year and 100-year return storms, discharging overland to adjacent water features, and consisting of the following:

- a. an extended detention stormwater management dry pond facility located at the north end of the site, having a storage volume of 1,306 m³ (100-year event) complete with an outlet structure consisting of 3 – 200 mm diameter, smooth interior, outlet pipes allowing a total discharge rate of 0.07 m³/s (100-year event) to a rip-rap lined spillway eventually flowing overland to an adjacent wetland to the north; and
- c. an extended detention stormwater management dry pond facility located at the south end of the site, having a storage volume of 346 m³ (100-year event) complete with an outlet structure consisting of a single 300 mm diameter, smooth interior, outlet pipe allowing a total discharge rate of 0.05 m³/s (100-year event) to a rip-rap lined spillway eventually flowing overland to an adjacent roadside ditch to the south.

F3. The Company shall inspect the stormwater management works and erosion control works during construction per the recommendations in the Stantec Stormwater Management Report, with the long term inspection of stormwater management works at a minimum of at least once a year and clean up and maintenance as necessary to prevent the excessive build-up of sediments and/or vegetation. The results of these inspections and any cleaning and maintenance operations undertaken are to be recorded and maintained for a minimum of three (3) years from the date of their creation.

H. Schedules A and B are deleted and replaced with the following:

**SCHEDULE A
Facility Description**

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

(a) Seven (7) arrays of photovoltaic (PV) modules or panels with a total name plate capacity of up to approximately seven (7) megawatts (AC), with each array containing one (1) cluster consisting of two (2) 500 kW inverters and one (1) 27.6 kV/1 MVA transformer; and

(b) associated ancillary equipment, systems and technologies including one (1) 44 kV/7 MVA transformer substation, on-site access roads, underground cabling and overhead distribution 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, Z18-NAD83 projection:

Source ID	Sound Power Level (dBA)	Easting (m)	Northing (m)	Source description
ST-1	96.6	435,367	4,980,801	7 MVA Substation, see Table B2
I-1A	87.9	435,355	4,981,083	500 kW inverter, see Table B3
I-1B	87.9	435,358	4,981,081	500 kW inverter, see Table B3
I-2A	87.9	435,232	4,981,233	500 kW inverter, see Table B3
I-2B	87.9	435,235	4,981,231	500 kW inverter, see Table B3
I-3A	87.9	435,103	4,981,383	500 kW inverter, see Table B3
I-3B	87.9	435,107	4,981,381	500 kW inverter, see Table B3
I-4A	87.9	434,941	4,981,378	500 kW inverter, see Table B3
I-4B	87.9	434,937	4,981,376	500 kW inverter, see Table B3
I-5A	87.9	435,068	4,981,227	500 kW inverter, see Table B3
I-5B	87.9	435,065	4,981,225	500 kW inverter, see Table B3
I-6A	87.9	435,197	4,981,077	500 kW inverter, see Table B3
I-6B	87.9	435,193	4,981,075	500 kW inverter, see Table B3
I-7A	87.9	435,326	4,980,927	500 kW inverter, see Table B3
I-7B	87.9	435,323	4,980,925	500 kW inverter, see Table B3
T-1	88.7	435,352	4,981,082	1 MVA Transformer, see Table B4
T-2	88.7	435,229	4,981,232	1 MVA Transformer, see Table B4
T-3	88.7	435,100	4,981,382	1 MVA Transformer, see Table B4
T-4	88.7	434,944	4,981,376	1 MVA Transformer, see Table B4
T-5	88.7	435,071	4,981,226	1 MVA Transformer, see Table B4
T-6	88.7	435,200	4,981,076	1 MVA Transformer, see Table B4
T-7	88.7	435,329	4,980,925	1 MVA Transformer, see Table B4

Note: The inverter, inverter transformer and transformer substation Sound Power Level values in the above table include the 5 Decibel (dB) adjustment for tonality as prescribed in Publication NPC-104.

Table B2: Maximum Sound Power Spectrum (Decibel) of 7 megavolt-amperes (MVA) substation

ST-1	Octave Band Centre Frequency (Hz)							
	63	125	250	500	1000	2000	4000	8000
Sound Power Level (dB Lin)	99.2	101.2	96.2	96.2	90.2	85.2	80.2	73.2

Table B3: Maximum Sound Power Spectrum (Decibel) of 500 kilowatt (kW) inverter

CONTENT COPY OF ORIGINAL

I-1A to I-7B	Octave Band Centre Frequency (Hz)							
	63	125	250	500	1000	2000	4000	8000
Sound Power Level (dB Lin)	81.7	85.7	92.3	85.5	80.8	77.1	69.6	57.2

Table B4: Maximum Sound Power Spectrum (Decibel) of 1 megavolt-amperes (MVA) inverter transformer

T1-7	Octave Band Centre Frequency (Hz)							
	63	125	250	500	1000	2000	4000	8000
Sound Power Level (dB Lin)	91.3	93.3	88.3	88.3	82.3	77.3	72.3	65.3

Note: The Sound Power Level values in the above Tables B2, B3 and B4 include the 5 Decibel (dB) adjustment for tonality as prescribed in Publication NPC-104.

I. Schedule C is deleted.

This Notice shall constitute part of the approval issued under Approval No. 6691-8VMRLG dated August 14, 2012.

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.

CONTENT COPY OF ORIGINAL

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 22nd day of August, 2013

Vic Schroter, P.Eng.

Director

Section 47.5, *Environmental Protection Act*

MZ/

c: District Manager, MOE Ottawa

Grace Pasceri, Canadian Solar Solutions Inc.

RENEWABLE ENERGY APPROVALNUMBER 6691-8VMRLG
Issue Date: August 14, 20122225249 Ontario Inc.
650 Riverbend Drive
Suite B
Kitchener ON N2K 3S2Project: 4639 Donnelly Drive
Location: Lot 28, Concession 1, Part 1
Ref. #4R-12727
City of Ottawa

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 7 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 "Noise Study Report For Burritts Rapids Solar Energy Project, Rev. 0" prepared by Hatch Limited, dated January 11, 2012 and signed by Oleg Belashov, 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 January 9, 2012, and signed by Milfred Hammerbacher, Director, Canadian Solar Solutions Inc., on behalf of 2225249 Ontario Inc. and all supporting documentation submitted with the application, including amended documentation submitted up to the date this Approval is 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 2225249 Ontario Inc. 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 fourteen (14) 500 kW inverters, seven (7) 27.6-KV/1-MVA transformers, and one (1) 44-kV/7-MVA 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, described in the Acoustic Assessment Report and Schedule C of this Approval;
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" 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 (μ Pa);
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:

Schedule A - Facility Description

Schedule B - Coordinates of the Equipment and Noise Specifications

Schedule C - Noise Control Measures

- 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.

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.
- (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 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 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. The Company shall implement the groundwater sampling and monitoring program included in the Application and entitled "Proposed Groundwater Monitoring For a Proposed Solar Farm, Burritts Rapids Solar Energy Project, City of Ottawa, Ontario", dated January 2012 and prepared by McIntosh Perry Consulting Engineers Ltd.
- E2. The Company shall report the summary of the results of the groundwater sampling and 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 and entitled "Burritts Rapids Solar Energy Project, Stormwater Management Report", dated October 28, 2011 and prepared by Dillon Consulting Limited.
- F2. The Company shall ensure that the stormwater management works for the collection, transmission, treatment and disposal of stormwater runoff from the various catchment areas for the facility are constructed as proposed including construction of flat bottomed trapezoidal grass swales around the perimeter of the site and adjacent and parallel to the interior roads, along with reestablishment of locally grown and low maintenance vegetation on all disturbed areas with the exception of roadways and prefabricated structures. The swales are to be sized and equipped with outlet control structures to ensure enough storage volume to attenuate post development peak flows from a hundred year peak design storm to pre development levels.
- F3. The Company shall inspect the stormwater management works at least once a year and, if necessary, clean and maintain the works to prevent the excessive build-up of sediments and/or vegetation. The results of these inspections and inspections and any cleaning and maintenance operations undertaken are to be recorded and maintained for a minimum of three (3) years from the date of their creation.

G - SEWAGE WORKS ASSOCIATED WITH THE TRANSFORMER SUBSTATION SPILL CONTAINMENT FACILITY

- G1. The Company shall design and construct the transformer substation spill containment facility to meet 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 contribution from a minimum 24-hour duration, 25-year return storm within the spill containment area around the transformer.
- (2) the containment facility shall have an impervious concrete floor and walls sloped toward an outlet, maintaining a minimum 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;
- (3) the containment pad shall drain to an appropriately sized oil control device, such as an oil/water separator, a pump-out sump, a canister filled with oil absorbing material, or a blind sump; and
- (4) 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.) that allows for either batch discharge or direct discharges from the oil control device to ground, provided Maximum Concentration Objective for Oil and Grease specified in Condition G3 is met, or off site by a licensed hauler, and for proper implementation of the monitoring program described in Condition G4.

G2. The Company shall:

- (1) prior to the construction of the transformer substation spill containment facility, provide the District Manager and Director with 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 pertaining 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 in the effluent, and shall comply with the following requirements:

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

The Company shall also comply with the following requirements:

- (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	Sample Type
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Oil and Grease	B – Batch, i.e., for each discrete volume in the sump prior to pumpout; or Q – Quarterly for direct effluent discharge, i.e., four times over a year, relatively evenly spaced.	Grab
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(2) 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

(3) 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 - WATER TAKING ACTIVITIES

H1. 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.

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, 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 - TRAFFIC MANAGEMENT PLANNING

- J1. Within three (3) months of receiving this Approval, the Company shall prepare a Traffic Management Plan and provide it to the City of Ottawa.
- J2. Within three (3) months of having provided the Traffic Management Plan to the City of Ottawa, the Company shall make reasonable efforts to enter into a Road Users Agreement with the City of Ottawa.
- J3. If a Road Users Agreement has not been signed with the City of Ottawa within three (3) months of having provided the Traffic Management Plan to the City of Ottawa, the Company shall provide a written explanation as to why this has not occurred.

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) Seven (7) arrays of photovoltaic (PV) modules or panels with a total name plate capacity of up to approximately 8.4 megawatts (DC) or seven (7) megawatts (AC), with each array containing one (1) cluster consisting of two (2) 500 kW inverters and one (1) 27.6-kV/1-MVA transformer; and
- (b) associated ancillary equipment, systems and technologies including one (1) 44-kV/7-MVA transformer substation, on-site access roads, underground cabling and overhead distribution 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, Z18-NAD83 projection:

Source ID	Sound Power Level (dBA)	Easting (m)	Northing (m)	Source description
Sub	90.8	435,441	4,980,860	44-kV/7-MVA Transformer Substation
Inv1	102.2	435,344	4,980,950	Two (2) 500 kW inverters and one (1) 27.6-kV/1-MVA inverter in cluster 1
Inv2	102.2	435,247	4,981,064	Two (2) 500 kW inverters and one (1) 27.6-kV/1-MVA inverter in cluster 2
Inv3	102.2	435,151	4,981,177	Two (2) 500 kW inverters and one (1) 27.6-kV/1-MVA inverter in cluster 3
Inv4	102.2	435,244	4,981,197	Two (2) 500 kW inverters and one (1) 27.6-kV/1-MVA inverter in cluster 4
Inv5	102.2	435,055	4,981,290	Two (2) 500 kW inverters and one (1) 27.6-kV/1-MVA inverter in cluster 5
Inv6	102.2	435,077	4,981,390	Two (2) 500 kW inverters and one (1) 27.6-kV/1-MVA inverter in cluster 6
Inv7	102.2	434,941	4,981,421	Two (2) 500 kW inverters and one (1) 27.6-kV/1-MVA inverter in cluster 7

Note: The Sound Power Level values in the above table include the 5 Decibel (dB) adjustment for tonality as prescribed in Publication NPC-104.

SCHEDULE C

Noise Control Measures

Acoustic Enclosure

In accordance with Section 5 of the Acoustic Assessment Report, inverter clusters 1, 2, 5, 6 and 7 shall be encased in an acoustic enclosure with the enclosure shell, including composite effect of the wall/roof materials, doors and any openings, capable of providing the following values of Insertion/Transmission-Loss in 1/1 octave frequency bands:

Acoustic Enclosure Specifications, [dB]

Name	Octave Band Centre Frequency (Hz)							
	63	125	250	500	1000	2000	4000	8000
Acoustic Enclosure	10	10	12	16	23	18	0	0

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 and A6 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. 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 Publication NPC-232.

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, Publication NPC-232 and this Approval can be verified.
9. Conditions E, F, 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.
10. Condition G1 is included to ensure that the sewage works of the transformer substation spill containment facility are designed to have adequate capacity to provide spill control. This condition is also included to enable compliance with this Approval, such that the environment is protected and deterioration, loss, injury or damage to any person, property or the environment is minimized and/or prevented.
11. Condition G2 is included to ensure that the sewage works of the transformer substation spill containment facility will be designed, installed, operated and maintained in accordance with the information submitted by the Company, and to adequately manage and clean-up any oil spill from the transformer.
12. Condition G3 is included to establish non-enforceable effluent quality objectives which the Company is required to strive towards on an ongoing basis. These objectives are to be used as a mechanism to trigger corrective action proactively and voluntarily before environmental impairment occurs.
13. Conditions G4 and G5 are included to require the Company to demonstrate that the performance of the sewage works of the transformer substation spill containment facility is at a level consistent with the design and effluent objectives specified in the Approval and is not causing any impairment to the environment.
14. Condition I is included to protect archaeological resources that may be found at the project location.
15. 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.
16. 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.
17. 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.
18. 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 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 14th day of August, 2012



Vic Schroter, P.Eng.

Director

Section 47.5, *Environmental Protection Act*

SE/

c: District Manager, MOE Ottawa
Jeff Roy, Canadian Solar Solutions Inc.

