

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, 24<sup>th</sup> 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).**

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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

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**AMENDMENT TO RENEWABLE ENERGY APPROVAL**NUMBER 9694-8X9J7X  
Issue Date: May 4, 2016

TransCanada Energy Ltd.  
Royal Bank Plaza, South Tower  
200 Bay Street, 24th Floor, P. O. Box 43  
Toronto, Ontario  
M5J 2J1

Site Location: Mississippi Mills Solar Park  
577 Concession Road 12 South  
Lots 3 and 4, Concession 11  
Town of Mississippi Mills, County of Lanark

*You are hereby notified that I have amended Approval No. 9694-8X9J7X issued on October 12, 2012 for a Class 3 solar facility , as follows:*

**A. The Company name and address has been changed:**

FROM: 2225213 Ontario Inc.  
545 Speedvale Avenue West  
Guelph, Ontario  
N1K 1E6

TO: TransCanada Energy Ltd.  
Royal Bank Plaza, South Tower  
200 Bay Street, 24th Floor, P. O. Box 43  
Toronto, Ontario  
M5J 2J1

**B. The definitions of the "Application" and "Company" of the Approval are deleted and replaced by the following:**

7. "Application" means the application for a Renewable Energy Approval dated March 16, 2012, and signed by Ken Rowbotham, Vice President, Canadian Solar Solutions Inc. on behalf of 2225213 Ontario Inc. and all supporting documentation submitted with the application, including amended documentation submitted up to October 12, 2012; and as further amended by the application for an amendment to a Renewable Energy Approval dated August 6, 2013 and signed by Ken Rowbotham, Vice President, Canadian Solar Solutions Inc. on behalf of 2225213 Ontario Inc. and all supporting documentation submitted with the application up to December 17, 2013; and as further amended by the application for an amendment to a Renewable Energy Approval dated January 16, 2016, and signed by John McWilliams, Vice President of Energy Operations, TransCanada Energy Ltd. and all supporting documentation submitted with the application up to February 10, 2016;
14. "Company" means TransCanada Energy Ltd. and includes its successors and assignees;

**All other Terms and Conditions of the Approval remain the same.**

**This Notice shall constitute part of the approval issued under Approval No. 9694-8X9J7X dated October 12, 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 and Climate  
Change  
135 St. Clair Avenue West, 1st Floor  
Toronto, Ontario  
M4V 1P5

**\* Further information on the Environmental Review Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 212-6349, Fax: (416) 326-5370 or [www.ert.gov.on.ca](http://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](http://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 4th day of May, 2016



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

AL/

c: District Manager, MOECC Ottawa

**AMENDMENT TO RENEWABLE ENERGY APPROVAL**NUMBER 9694-8X9J7X  
Issue Date: December 17, 2013

2225213 Ontario Inc.  
545 Speedvale Ave W  
Guelph, Ontario  
N1K 1E6

Site Location: 577 Concession Road 12 S  
Lot 3 and 4, Concession 11  
Mississippi Mills Town, County of Lanark  
K0A 2X0

*You are hereby notified that I have amended Approval No. 9694-8X9J7X issued on October 12, 2012 for 2225213 Ontario Inc., a Class 3 solar facility, as follows:*

**A. The definition of the Acoustic Assessment Report and the Application in the Approval is deleted and replaced with the following:**

1. "Acoustic Assessment Report" means the report included in the Application and entitled "Revised Noise Study Report, Mississippi Mills Solar Park Project" prepared by Dillon Consulting Limited, dated August, 2012 and signed by Amir Iravani;
7. "Application" means the application for a Renewable Energy Approval dated March 16, 2012, and signed by Ken Rowbotham, Vice President, Canadian Solar Solutions Inc. on behalf of 2225213 Ontario Inc. and all supporting documentation submitted with the application, including amended documentation submitted up to October 12, 2012; and as further amended by the application for an amendment to a Renewable Energy Approval dated August 6, 2013 and signed by Ken Rowbotham, Vice President, Canadian Solar Solutions Inc. on behalf of 2225213 Ontario Inc. and all supporting documentation submitted with the application up to the date this amendment is issued;

**B. The definition of Noise Control Measures in the Approval is revoked:**

**C. Conditions A1, C1 and F1 of the Approval are deleted and replaced with the following:**

**A - GENERAL**

1. 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

### **C - NOISE PERFORMANCE LIMITS**

1. The Company shall ensure that:

- (a) 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;
- (b) the Equipment is constructed and installed at either of the following locations:
  - (i) at the locations identified in Schedule B of this Approval; or
  - (ii) 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,
    - 1) the Equipment will comply with Condition C1 (a), and
    - 2) all setback prohibitions established under O. Reg. 359/09 are complied with;
- (c) the Equipment complies with the noise specifications set out in Schedule B of this Approval.

### **F - STORMWATER MANAGEMENT**

- 1. 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 entitled "Final Stormwater Management Report - Proposed Photovoltaic Project, Mississippi Mills, Ontario", dated March 2013 and prepared by McIntosh Perry Consulting Engineers Ltd., included as Appendix H in the Amendment Application entitled "Mississippi Mills Solar Park Project - Final Design Amendment Report", dated August 2013 and prepared by Dillon Consulting.

**D. Schedule B of the Approval is deleted and replaced with the following Schedule B:**

## SCHEDULE B

**Table B1: 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
TRS	82	402,940	5,017,372	44-kV/10-MVA Transformer Substation. See Table B2 below
INV1	91.7	402,166	5,017,513	Two (2) 500kW inverters. See Table B3 below
INV2	91.7	402,280	5,017,391	Two (2) 500kW inverters. See Table B3 below
INV3	91.7	402,393	5,017,269	Two (2) 500kW inverters. See Table B3 below
INV4	91.7	402,507	5,017,147	Two (2) 500kW inverters. See Table B3 below
INV5	91.7	402,623	5,017,015	Two (2) 500kW inverters. See Table B3 below
INV6	91.7	402,399	5,017,518	Two (2) 500kW inverters. See Table B3 below
INV7	91.7	402,512	5,017,396	Two (2) 500kW inverters. See Table B3 below
INV8	91.7	402,635	5,017,264	Two (2) 500kW inverters. See Table B3 below
INV9	91.7	402,749	5,017,142	Two (2) 500kW inverters. See Table B3 below
INV10	91.7	402,826	5,017,281	Two (2) 500kW inverters. See Table B3 below
INVTR1	83.3	402,171	5,017,513	27.6-kV/1-MVA transformer. See Table B4 below
INVTR2	83.3	402,285	5,017,391	27.6-kV/1-MVA transformer. See Table B4 below
INVTR3	83.3	402,398	5,017,269	27.6-kV/1-MVA transformer. See Table B4 below
INVTR4	83.3	402,512	5,017,147	27.6-kV/1-MVA transformer. See Table B4 below
INVTR5	83.3	402,628	5,017,015	27.6-kV/1-MVA transformer. See Table B4 below
INVTR6	83.3	402,403	5,017,518	27.6-kV/1-MVA transformer. See Table B4 below
INVTR7	83.3	402,517	5,017,396	27.6-kV/1-MVA transformer. See Table B4 below
INVTR8	83.3	402,640	5,017,264	27.6-kV/1-MVA transformer. See Table B4 below
INVTR9	83.3	402,754	5,017,142	27.6-kV/1-MVA transformer. See Table B4 below
INVTR10	83.3	402,831	5,017,281	27.6-kV/1-MVA transformer. See Table B4 below

Note: The inverter Sound Power Level values in the above table correspond to the combined output of the two inverters and one transformer in each cluster, and include the 5 Decibel (dB) adjustment for tonality as prescribed in Publication NPC-104.

**Table B2:** Maximum Sound Power Level Lw Spectrum (dB Lin) of Transformer Substation

Transformer Substation	Octave Band Centre Frequency (Hz)							
	63	125	250	500	1000	2000	4000	8000
Lw (dB Lin)	75.4	84	77.6	80.4	79.6	54.7	47.8	50.4

**Table B3:** Maximum Sound Power Spectrum (dB Lin) of Inverters 1 to 20

Inverters 1 to 20	Octave Band Centre Frequency (Hz)							
	63	125	250	500	1000	2000	4000	8000
Lw (dB Lin)	88.4	94.6	86.9	86	83	78.1	75.3	80.2

**Table B4 :** Maximum Sound Power Level Lw Spectrum (dB Lin) of Transformers 1 to 10

Transformer 1 to 10	Octave Band Centre Frequency (Hz)							
	63	125	250	500	1000	2000	4000	8000
Lw (dB Lin)	103.5	95.4	82.9	77.5	68.3	62.1	57.3	52.4

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.

**E. Schedule C of the Approval is revoked.**

**All other Terms and Conditions remain the same.**

**This Notice shall constitute part of the approval issued under Approval No. 9694-8X9J7X dated October 12, 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

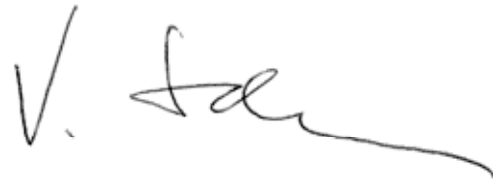
The Director  
Section 47.5, *Environmental Protection Act*  
Ministry of the Environment  
2 St. Clair Avenue West, Floor 12A  
Toronto, Ontario  
M4V 1L5

**\* 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](http://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](http://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 December, 2013



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

MK/

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

**RENEWABLE ENERGY APPROVAL**NUMBER 9694-8X9J7X  
Issue Date: October 12, 2012

2225213 Ontario Inc.  
c/o Canadian Solar Solutions Inc.  
545 Speedvale Avenue West  
Guelph, Ontario  
N1K 1E6

Project: Mississippi Mills Solar Park Project  
Location: 577 Concession Road 12 S  
Lot 3 and 4, Concession 11  
Mississippi Mills Town, County of Lanark  
K0A 2X0

*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 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 "Revised Noise Study Report, Mississippi Mills Solar Park Project" prepared by Dillon Consulting Limited, dated August, 2012 and signed by Amir Iravani;
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 March 16, 2012, and signed by Ken Rowbotham, Vice President, Canadian Solar Solutions Inc. on behalf of 2225213 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 (itches) 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 2225213 Ontario Inc. c/o Canadian Solar Solutions 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 twenty (20) inverters, ten (10) 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, 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 ( $\mu\text{Pa}$ );
35. "Sound Pressure Level" means twenty times the logarithm to the base 10 of the ratio of the effective pressure ( $\mu\text{Pa}$ ) of a sound to the reference pressure of  $20 \mu\text{Pa}$ ;
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**

1. 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
  - (c) Schedule C – Noise Control Measures
2. 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.
3. The Company shall ensure a copy of this Approval is:
  - (a) accessible, at all times, by Company staff operating the Facility and;
  - (b) submitted to the clerk of each local municipality and upper-tier municipality in which the Facility is situated.
4. 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.
5. 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.
6. The Facility shall be retired in accordance with the Decommissioning Plan Report and any directions provided by the Director or District Manager.
7. The Company shall provide the District Manager and the Director advanced written notice of the following:
  - (a) the commencement of any construction or installation activities at the project location; and
  - (b) the commencement of the operation of the Facility.

## **B - EXPIRY OF APPROVAL**

1. Construction and installation of the Facility must be completed within three (3) years of the later of:
  - (a) the date this Approval is issued; or

- (b) 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.
2. 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**

### **1. The Company shall ensure that:**

- (a) 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;
  - (b) the Equipment is constructed and installed at either of the following locations:
    - (i) at the locations identified in Schedule B of this Approval; or
    - (ii) 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,
      - 1) the Equipment will comply with Condition C1 (a), and
      - 2) all setback prohibitions established under O. Reg. 359/09 are complied with.
  - (c) the Equipment complies with the noise specifications set out in Schedule B of this Approval; and
  - (d) all of the Noise Control Measures are fully implemented prior to the commencement of the operation of the Facility.
2. If the Company determines that some or all of the Equipment cannot be constructed in accordance with Condition C1 (b), 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.
3. 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 (b).

## **D - ACOUSTIC AUDIT**

1. 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**

1. The Company shall implement the groundwater sampling and monitoring program included in the Application and entitled "Proposed Groundwater Monitoring For a Proposed Solar Farm, Mississippi Mills Solar Energy Project, Town of Mississippi Mills, Ontario", dated January 2012 and prepared by McIntosh Perry Consulting Engineers Ltd.
2. 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**

1. 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 entitled "Mississippi Mills Solar Park Project Construction Plan Report", dated March 2012 and prepared by Dillon Consulting.

## **G - SEWAGE WORKS OF THE TRANSFORMER SUBSTATION SPILL CONTAINMENT FACILITY**

1. The Company shall design and construct a transformer substation spill containment facility which meets the following requirements:
  - (a) 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, 25-year return storm capacity for the stormwater drainage area around the transformer under normal operating conditions;
  - (b) the containment facility shall have an impervious concrete floor and walls sloped toward an outlet, maintaining a freeboard of 0.25 metres terminating approximately 0.3 metres above grade, with an impervious plastic liner or equivalent, and a 1 metre layer of crushed stone within;
  - (c) the containment pad shall drain to an oil control device, such as an oil/water separator, a pump-out sump, an oil absorbing material in a canister or a blind sump; and
  - (d) 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 batch discharges or direct discharges and for proper implementation of the monitoring program described in Condition G4.



2. The Company shall:

- (a) 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;
- (b) within six (6) months of the completion of 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 which includes the following:
  - (i) as-built drawings of the sewage works;
  - (ii) confirmation that the transformer substation spill containment facility has been designed and installed according to appropriate specifications; and
  - (iii) confirmation of the adequacy of the operating procedures and the emergency procedures manuals as it pertains to the installed sewage works.
- (c) as a minimum, check the oil detection system on a monthly basis and create a written record of the inspections;
- (d) ensure that the effluent is essentially free of floating and settleable 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;
- (e) immediately identify and clean-up all losses of oil from the transformer;
- (f) upon identification of oil in the effluent pumpout, take immediate action to prevent the further occurrence of such loss; and
- (g) 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:
  - (i) loss of oil from the transformer,
  - (ii) a spill within the meaning of Part X of the Act, or
  - (iii) the identification of an abnormal amount of oil in the effluent.

3. 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	15 mg/L

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

4. Upon commencement of the operation of the Facility, the Company shall establish and carry out the following monitoring program for the sewage works:

- (a) 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 sump prior to pumpout; or Q - Quarterly for direct effluent discharge, i.e., four times over a year, relatively evenly spaced.	Grab

- (b) in the event of an exceedance of the maximum concentration objective set out in the table in Condition G3, the Company shall:
  - (i) increase the frequency of sampling to once per month, for each month that effluent discharges occurs, and
  - (ii) 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
- (c) if over a period of twenty-four (24) months of effluent monitoring under Condition G4 (a), 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.

5. The Company shall comply with the following methods and protocols for any sampling, analysis and recording undertaken in accordance with Condition No. G4:
- (a) 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
  - (b) 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**

1. 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**

1. 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.
2. Should any previously undocumented archaeological resources be discovered, the Company shall:
- (a) cease all alteration of the area in which the resources were discovered immediately;
  - (b) 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
  - (c) notify the Director as soon as reasonably possible.

## **J - OPERATION AND MAINTENANCE**

1. 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:
- (a) routine operating and maintenance procedures in accordance with good engineering practices and as recommended by the Equipment suppliers;
  - (b) emergency procedures;
  - (c) procedures for any record keeping activities relating to operation and maintenance of the Equipment; and

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

2. The Company shall;

(a) update, as required, the manual described in Condition J1; and

(b) make the manual described in Condition J1 available for review by the Ministry upon request.

3. The Company shall ensure that the Facility is operated and maintained in accordance with the Approval and the manual described in Condition J1.

### **K - RECORD CREATION AND RETENTION**

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

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

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

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

2. A record described under Condition K1(c) shall include:

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

(i) the date and time the complaint was made;

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

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

(i) the date and time of each incident;

(ii) the duration of each incident;

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

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

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

(c) 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.

3. The Company shall retain, for a minimum of five (5) years from the date of their creation, all records described in Condition K1, and make these records available for review by the Ministry upon request.

#### **L - NOTIFICATION OF COMPLAINTS**

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

2. The Company shall provide the District Manager with the written records created under Condition K1 within eight (8) business days of the receipt of the complaint.

3. 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.

#### **M - CHANGE OF OWNERSHIP**

1. 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:

(a) the ownership of the Facility;

(b) the operator of the Facility;

(c) the address of the Company;

(d) 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

(e) 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) ten (10) arrays of photovoltaic (PV) modules or panels with a total name plate capacity of up to approximately ten (10) megawatts (AC), with each array containing one (1) cluster consisting of one or more inverters with a total rating of one (1) megawatts (MW) and one (1) 27.6 kilovolts/1-megavolt transformer; and
- (b) associated ancillary equipment, systems and technologies including one (1) 44 kilovolts/10-megavolts ampere 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, Z17-NAD83 projection:

Source ID	Sound Power Level (dBA)	Easting (m)	Northing (m)	Source description
TRS	93.3	402,822	5,017,285	44-kV/10-MVA Transformer Substation
Inv1	102.2	402,259	5,017,400	Two (2) 500 kW inverters and one (1) 27.6-kV/1-MVA transformer in cluster 1
Inv2	102.2	402,425	5,017,465	Two (2) 500 kW inverters and one (1) 27.6-kV/1-MVA transformer in cluster 2
Inv3	102.2	402,372	5,017,289	Two (2) 500 kW inverters and one (1) 27.6-kV/1-MVA transformer in cluster 3
Inv4	102.2	402,485	5,017,402	Two (2) 500 kW inverters and one (1) 27.6-kV/1-MVA transformer in cluster 4
Inv5	102.2	402,473	5,017,172	Two (2) 500 kW inverters and one (1) 27.6-kV/1-MVA transformer in cluster 5
Inv6	102.2	402,597	5,017,288	Two (2) 500 kW inverters and one (1) 27.6-kV/1-MVA transformer in cluster 6
Inv7	102.2	402,537	5,017,056	Two (2) 500 kW inverters and one (1) 27.6-kV/1-MVA transformer in cluster 7
Inv8	102.2	402,703	5,017,167	Two (2) 500 kW inverters and one (1) 27.6-kV/1-MVA transformer in cluster 8
Inv9	102.2	402,674	5,017,024	Two (2) 500 kW inverters and one (1) 27.6-kV/1-MVA transformer in cluster 9
Inv10	102.2	402,823	5,017,155	Two (2) 500 kW inverters and one (1) 27.6-kV/1-MVA transformer in cluster 10

Note: The inverter Sound Power Level values in the above table correspond to the combined output of the two inverters and one transformer in each cluster, and include the 5 Decibel (dB) adjustment for tonality as prescribed in Publication NPC-104.

## SCHEDULE C

### Noise Control Measures

#### Acoustic Barrier

One (1) three-sided, 3.5 metres high and 15 metres long acoustic barrier shielding the transformer substation, positioned as per Table 3b and Figures 3a and 4b in the Acoustic Assessment Report. The acoustic barrier shall be continuous without holes, gaps and other penetrations, and having surface mass at least 20 kilograms per square metres.

#### Acoustic Enclosure

Eight (8) acoustic enclosures enclosing inverter clusters 2 and 4, 5, 6, 7, 8, 9 and 10; the shell of the enclosure shall have a minimum sound transmission class rating of 35, assuming a composite effect of the walls/roof/door.

The openings of the acoustic enclosures will be fitted with acoustic louvers, capable of providing the following values of noise reduction in 1/1 octave band centre frequencies:

#### Acoustic Louvre Specifications, [dB]

Name	Octave Band Centre Frequency (Hz)							
	63	125	250	500	1000	2000	4000	8000
Acoustic Louvre	4	4	6	10	17	12	--	--

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

1. Condition 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. Condition A3 and A4 are included to require the Company to provide information to the public and the local municipality.
3. Condition 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. Condition 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. Condition E, F and H are included to ensure that the Facility is constructed, installed, used, operated, maintained and retired in a way that does not result in an Adverse Effect or hazard to the natural environment or any persons.
10. Condition 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 J 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 K 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 L 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 M 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](http://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](http://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 12th day of October, 2012

A handwritten signature in black ink, appearing to read 'V. Schroter', written over a horizontal line.

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

SE/

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