

AMENDMENT TO RENEWABLE ENERGY APPROVAL

NUMBER 7639-96SGEZ Issue Date: November 18, 2015

2241660 Ontario Corp. as general partner for and on behalf of Illumination LP 545 Speedvale Ave W

Guelph, Ontario

N1K 1E6

Site Location: 2630 Regional Road 19

Lot 2 and 3, Concession 2

Township of Scugog, Regional Municipality of Durham

You are hereby notified that I have amended Approval No. 7639-96SGEZ issued on June 26, 2013 for a Class 3 solar facility, as follows:

A. The description of the Site Location in the Approval has changed from:

2580 and 2670 Regional Road 19 Lot 2 and 3, Concession 2 Township of Scugog, Regional Municipality of Durham

To:

2630 Regional Road 19 Lot 2 and 3, Concession 2 Township of Scugog, Regional Municipality of Durham

- B. The definitions of "Acoustic Assessment Report", "Application", "Class 2 Area", "Class 3 Area", "Point of Reception", "Publication NPC-205" and "Publication NPC-232" in the Approval are deleted and replaced with the following:
 - 1. "Acoustic Assessment Report" means the report included in the Application and entitled "Illumination Revised Noise Study Report", dated October 2015, prepared and signed by Amir A. Iravani, Ph.D., P.Eng., Dillon Consulting Limited;
 - 7. "Application" means the application for a Renewable Energy Approval dated August 14, 2012, and signed by Colin Parkin, General Manager, Illumination LP, and all supporting documentation submitted with the application, including amended documentation

submitted up to June 26, 2013; and as further amended by the application for an amendment to a Renewable Energy Approval dated September 17, 2013, and signed by Colin Parkin, General Manager, 2241660 Ontario Corp., and all supporting documentation submitted with the application, including amended documentation submitted up to May 13, 2014; and as further amended by the application for an amendment to a Renewable Energy Approval dated May 20, 2015, and signed by Ken Rowbotham, Deputy General Manager, 2241660 Ontario Corp., and all supporting documentation submitted with the application, including amended documentation submitted up to November 18, 2015;

- 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);
- 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:
 - (a) a small community;
 - (b) agricultural area;
 - (c) a rural recreational area such as a cottage or a resort area; or
 - (d) a wilderness area.
- 25. "Point of Reception" has the same meaning as in Publication NPC-300, and is subject to the same qualifications described in this document;
- 36. "Publication NPC-300" means the Ministry Publication NPC-300, " Environmental Noise Guideline, Stationary and Transportation Sources Approval and Planning, Publication NPC-300", August, 2013, as amended.
- C. Condition C of the Approval is deleted and replaced with the following:

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 Limits as described in Publication NPC-300, 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. Condition F1 of the Approval is deleted and replaced with the following:

F1. The Company shall employ best management practices (BMPs) for stormwater management and sediment and erosion control during the construction, installation, use, operation, maintenance and retiring of the Facility, including, but not limited to, those BMPs and measures described in the Application and in the report entitled "Illumination 10 MW Solar Farm, Township of Scugog, Region of Durham, Ontario, Site Drainage and Stormwater Management", dated October 27, 2014, and prepared by Stantec Consulting Ltd.

E. Schedules A, B and C of the Approval 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) a total seven (7) arrays of photovoltaic modules with a total name plate capacity of up to 10 megawatts (AC), with six (6) arrays each containing one (1) cluster of two (2) 800 kilowatt (kW) inverters and one (1) 1.6 megavolt ampere (MVA) transformer, and the remaining one (1) array containing one (1) cluster of one (1) 800 kW inverter and one (1) 0.8 MVA transformer; and
- (b) associated ancillary equipment, systems and technologies including, but not limited to, one (1) transformer substation, on-site access roads, below and above grade cabling, and below and above grade distribution lines,

all in accordance with the Application.

SCHEDULE B
Table B1: 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
INV1	100.3	671029	4881090	Inverter 1, See Table B2 below
INV2	97.3	671069	4880977	Inverter 2, See Table B3 below
INV3	100.3	671176	4880661	Inverter 3, See Table B2 below
INV4	100.3	671381	4880664	Inverter 4, See Table B2 below
INV5	100.3	671531	4880664	Inverter 5, See Table B2 below
INV6	100.3	670720	4880451	Inverter 6, See Table B2 below
INV7	89.1	670741	4880347	Inverter 7, See Table B4 below
INVTR1	80.5	671027	4881094	Inverter Transformer 1, See Table B5 below
INVTR2	76.3	671067	4880981	Inverter Transformer 2, See Table B6 below
INVTR3	80.5	671171	4880661	Inverter Transformer 3, See Table B5 below
INVTR4	80.5	671376	4880664	Inverter Transformer 4, See Table B5 below
INVTR5	80.5	671535	4880664	Inverter Transformer 5, See Table B5 below
INVTR6	80.5	670719	4880456	Inverter Transformer 6, See Table B5 below
INVTR7	80.5	670740	4880351	Inverter Transformer 7, See Table B5 below
TRS	92.0	670943	4881175	Transformer Substation, See Table B7 below

Table B2: Maximum Sound Power Spectrum (dB Lin) of Inverters 1 and 3-6

Inverters 1 and 3-6	Octave Band Centre Frequency (Hz)								
inverters 1 and 5-0	63	125	250	500	1000	2000	4000	8000	
Lw (dB Lin)	92.1	89.7	91.2	91.2	58.7	89.4	98.0	87.4	

Table B3: Maximum Sound Power Spectrum (dB Lin) of Inverter 2

Inverter 2	Octave Band Centre Frequency (Hz)								
	63	125	250	500	1000	2000	4000	8000	
Lw (dB Lin)	89.1	86.7	88.2	88.3	82.7	86.4	95.0	84.4	

Table B4: Maximum Sound Power Spectrum (dB Lin) of Inverter 7

Inverter 7	Octave Band Centre Frequency (Hz)								
	63	125	250	500	1000	2000	4000	8000	
Lw (dB Lin)	70	69.6	78.6	82.1	75.7	73.6	87	65	

Table B5: Maximum Sound Power Spectrum (dB Lin) of Inverter Transformers 1 and 3-7

Inverter Transformers	Octave Band Centre Frequency (Hz)							
1 and 3-7	63	125	250	500	1000	2000	4000	8000
Lw (dB Lin)	83.1	85.1	80.1	80.1	74.1	69.1	64.1	57.1

Table B6: Maximum Sound Power Spectrum (dB Lin) of Inverter Transformer 2

Inverter Transformer 2	Octave Band Centre Frequency (Hz)								
inverter Transformer 2	63	125	250	500	1000	2000	4000	8000	
Lw (dB Lin)	78.9	80.9	75.9	75.9	69.9	64.9	59.9	52.9	

Table B7: Maximum Sound Power Spectrum (dB Lin) of Transformer Substation

Transformer Substation	Octave Band Centre Frequency (Hz)								
	63	125	250	500	1000	2000	4000	8000	
Lw (dB Lin)	94.6	96.6	91.6	91.6	85.6	80.6	75.6	68.6	

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

SCHEDULE C Noise Control Measures

Acoustical Louvres for Inverter Enclosure No 7

One (1) acoustic louvres for inverter enclosure (INV7), capable of providing the following values of Insertion-Loss in 1/1 octave frequency bands:

Centre Frequency (Hz)	63	125	250	500	1000	2000	4000	8000
Transmission Loss (dB)	1	4	4	6	10	17	12	-

This Notice shall constitute part of the approval issued under Approval No. 7639-96SGEZ dated June 26, 2013.

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

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

Section 142 of the 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 <u>each</u> portion appealed.

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

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

This notice must be served upon:

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

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

M5S 2B1

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

AND

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

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

DATED AT TORONTO this 18th day of November, 2015

Mohsen Keyvani, P.Eng.

Director

Section 47.5, Environmental Protection Act

NC/

c: District Manager, MOECC York-Durham Mark Feenstra, Canadian Solar Solutions Inc.