


**AMENDED CERTIFICATE OF APPROVAL**
**AIR**

NUMBER 1137-84RQXJ

Issue Date: June 1, 2010

First Solar Development (Canada), Inc.  
 5115 Blackwell Sideroad  
 Sarnia, Ontario  
 N7T 7H3

Site Location: 5115 Blackwell Sideroad  
 Lot 12, 13, 14 & 15, Concession 3 & 4  
 Sarnia City, County of Lambton  
 N7T 7H3

*You have applied in accordance with Section 9 of the Environmental Protection Act for approval of:*

An eighty (80) Megawatt solar farm (photovoltaic generating facility) including;

- Eighty (80) electrical step up transformers, each rated 1MVA, 0.208/27.6 kV; and
- One hundred sixty (160) electrical inverters and their associated fans, housed in concrete enclosures, each rated 500kW, 208V;

All in accordance with the Application for a Certificate of Approval (Air) dated March 4, 2010, and signed by Peter Carrie, Vice President, First Solar Development (Canada) Inc., and all supporting information associated with the application including a cover letter "RE: Sarnia Solar Farm Certificate of Approval Amendment (Noise)" to Doris Dumais of the Ministry of the Environment, dated March 8, 2010 and signed by Rick Pennycooke of The Lakeshore Group, a report titled "Acoustic Assessment Report , Sarnia Solar Farm, Sarnia Ontario", dated March 2010 and prepared by Golder Associates Ltd., as well as an email from Danny DaSilva of Golder Associates Ltd. to Thomas Shevlin, P. Eng. of the Ministry of the Environment dated April 22, 2010.

*For the purpose of this Certificate of Approval and the terms and conditions specified below, the following definitions apply:*

1. "*Act*" means the Environmental Protection Act;
2. "*Acoustic Audit*" means an investigative procedure consisting of measurements and/or acoustic modeling of all sources of noise emissions due to the operation of the *Facility*, assessed to determine compliance with the Performance Limits for the *Facility* regarding noise emissions, completed in accordance with the procedures set in *Publication NPC-103* and reported in accordance with *Publication NPC-233*;
3. "*Acoustic Audit Report*" means a report presenting the results of an *Acoustic Audit*, prepared in accordance with *Publication NPC-233*;
4. "*Acoustical Consultant*" means a person currently active in the field of environmental acoustics and noise/vibration control, who is familiar with *Ministry* noise guidelines and procedures and has a combination of formal university education, training and experience necessary to assess noise emissions from a *Facility*;
5. "*Certificate*" means this Certificate of Approval issued in accordance with the Act;
6. "*Company*" means First Solar Development (Canada), Inc.;

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7. "*Director*" means any person appointed in writing by the *Minister* pursuant to section 5 of the *EPA* as a Director for the purposes of section 9 of the *EPA*;
8. "*District Manager*" means the District Manager of the appropriate local district office of the *Ministry*, where the *Facility* is geographically located and in operation;
9. "*Equipment*" means the transformers, electrical inverters and associated cooling fans described in the *Company's* application, this *Certificate* and in the supporting documentation referred to herein, to the extent approved by this *Certificate*;
10. "*Facility*" means the entire operation located on the property where the *Equipment* is located;
11. "*Independent Acoustical Consultant*" means an *Acoustical Consultant* who is not representing the *Company* and was not involved in preparing the *Acoustic Assessment Report* or the design/implementation of *Noise Control Measures* for the *Facility* and/or *Equipment*. The *Independent Acoustical Consultant* shall not be retained by the *Acoustical Consultant* involved in the noise impact assessment or the design/implementation of *Noise Control Measures* for the *Facility* and/or *Equipment*;
12. "*Manual*" means a document or a set of documents that provide written instructions to staff of the *Company*;
13. "*Ministry*" means the Ontario Ministry of the Environment;
14. "*Noise Control Measures*" means measures to reduce the noise emissions from the *Facility* and/or *Equipment* including, but not limited to, silencers, acoustic louvres, enclosures, absorptive treatment, plenums and barriers, described in the *Company's* application, this *Certificate* and in the supporting documentation referred to herein, to the extent approved by this *Certificate*;
15. "Publication NPC-232" means Ministry Publication NPC-232 "Sound Level Limits for Stationary Sources in Class 3 Areas (Rural)", October 1995;
16. "*Publication NPC-103*" means the *Ministry* Publication NPC-103 of the Model Municipal Noise Control By-Law, Final Report, August 1978, published by the *Ministry* as amended;
17. "*Publication NPC-233*" means the *Ministry* Publication NPC-233, "Information to be Submitted for Approval of Stationary Sources of Sound", October 1995, as amended.

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

### TERMS AND CONDITIONS

1. The Company shall ensure that the Equipment is properly operated and maintained at all times. The Company shall:

(1) prepare, before commencement of operation of the Equipment, and update as necessary, a Manual outlining the operating procedures and a maintenance program for the Equipment, including:

- (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 all potential sources;

(2) implement the recommendations of the Manual.

### RECORD RETENTION

2. The Company shall retain, for a minimum of two (2) years from the date of their creation, all records and information related to or resulting from the recording activities required by this Certificate, and make these records available for review

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by staff of the Ministry upon request. The Company shall retain:

- (1) all records on the maintenance, repair and inspection of the Equipment; and
- (2) all records of any environmental complaints; including:

- (a) a description, time and date of each incident to which the complaint relates;
- (b) wind direction at the time of the incident to which the complaint relates; and
- (c) a description of the measures taken to address the cause of the incident to which the complaint relates and to prevent a similar occurrence in the future.

### NOTIFICATION OF COMPLAINTS

3. The Company shall notify the District Manager, in writing, of each environmental complaint within two (2) business days of the complaint. The notification shall include:

- (1) a description of the nature of the complaint;
- (2) the time, date and location of the incident;
- (3) the wind direction and other weather conditions at the time of the incident; and
- (4) the address of the complainant, if known.

### NOISE

4. The Company shall ensure that the noise emissions from the Equipment comply with the limits set in Publication NPC-232.

### ACOUSTIC AUDIT

5. The *Company* shall carry out acoustic audit measurements on the actual noise emissions due to the operation of the *Facility*. The *Company*:

- (a) shall carry out acoustic audit measurements in accordance with the procedures in *Publication NPC-103*;
- (b) shall submit an *Acoustic Audit Report* on the results of the *Acoustic Audit*, prepared by an *Independent Acoustical Consultant*, in accordance with the requirements of *Publication NPC-233*, to the *District Manager* and the *Director* not later than six (6) months from the start of operations.
- (c) The audit shall address worst case noise emissions for both daytime hours (0700-1900 hours), as well as nighttime hours (1900-0700), with attention given to the summer hours of sunlight after 1900 hours.

The *Director*:

- (d) may not accept the results of the *Acoustic Audit* if the requirements of *Publication NPC-233* were not followed;
- (e) may require the *Company* to repeat the *Acoustic Audit* if the results of the *Acoustic Audit* are found unacceptable to the *Director*.

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

1. Condition No. 1 is included to emphasize that the Equipment must be maintained and operated according to a procedure that will result in compliance with the Act, the Regulations and this Certificate.
2. Condition No. 2 is included to require the Company to keep records and to provide information to staff of the Ministry

so that compliance with the Act, the Regulations and this Certificate can be verified.

3. Condition No. 3 is included to require the Company to notify staff of the Ministry so as to assist the Ministry with the review of the site's compliance.

4. Condition No. 4 is included to provide minimum performance requirements considered necessary to prevent an adverse effect resulting from the operation of the Equipment.

5. Condition No. 5 is included to require the *Company* to gather accurate information and submit an *Acoustic Audit Report* in accordance with procedures set in the *Ministry's* noise guidelines, so that the environmental impact and subsequent compliance with the *EPA*, the regulation and this *Certificate* can be verified.

**This Certificate of Approval revokes and replaces Certificate(s) of Approval No. 6041-7XQUCU issued on November 25, 2009**

*In accordance with Section 139 of the Environmental Protection Act, R.S.O. 1990, Chapter E-19, as amended, you may by written Notice served upon me, the Environmental Review Tribunal and in accordance with Section 47 of the Environmental Bill of Rights, S.O. 1993, Chapter 28, the Environmental Commissioner, within 15 days after receipt of this Notice, require a hearing by the Tribunal. The Environmental Commissioner will place notice of your appeal 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 approval or each term or condition in the 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 Notice should also include:*

3. The name of the appellant;
4. The address of the appellant;
5. The Certificate of Approval number;
6. The date of the Certificate of Approval;
7. The name of the Director;
8. The municipality within which the works are located;

*And the Notice should be signed and dated by the appellant.*

*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 9, *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)**

*This instrument is subject to Section 38 of the Environmental Bill of Rights, that allows residents of Ontario to seek leave to appeal the decision on this instrument. Residents of Ontario may seek leave to appeal within 15 days from the date this decision is placed on the Environmental Registry. By accessing the Environmental Registry at [www.ene.gov.on.ca](http://www.ene.gov.on.ca), you can determine when the leave to appeal period ends.*

*The above noted works are approved under Section 9 of the Environmental Protection Act.*

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DATED AT TORONTO this 1st day of June, 2010

Victor Low, P.Eng.  
Director  
Section 9, *Environmental Protection Act*

TS/  
c: District Manager, MOE Sarnia  
Rick Pennycooke, Lakeshore Group