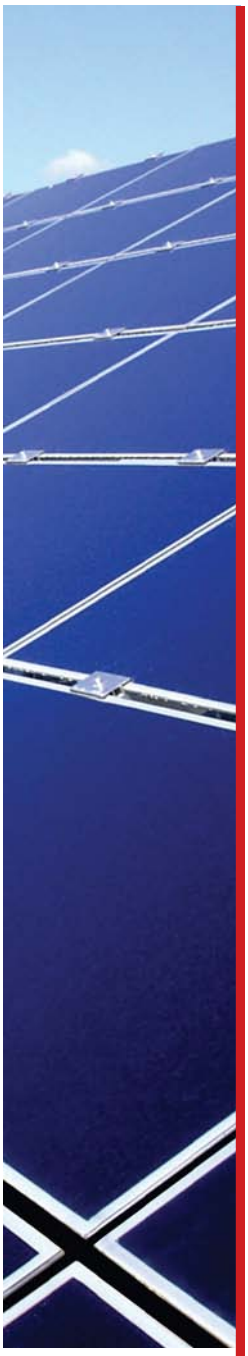

PROJECT DESCRIPTION REPORT
Twp. of St. Clair – Moore Solar Farm

Date: Version 1: November 24, 2009

Update 2: April 21, 2010

Update 3: June 17, 2010

Update 4: January 5, 2011

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Project

Class 3 solar farm as defined by Section 4 of O. Reg. 359/09.

Proponent

First Solar Development (Canada), Inc. (hereinafter referred to as “First Solar”).

About The Proponent

The proponent, First Solar, develops and constructs solar farms and is a solar module manufacturer producing low cost thin film photovoltaic modules. First Solar manufactures and uses low profile (less than 2m high), stationary thin film photovoltaic arrays which minimize wind loading and visual impacts. First Solar’s modules consume no fuel and create no atmospheric emissions, ground vibrations or water pollution in the generation of electricity. The proponent has proposed and established a number of solar farms in North America, Europe and Asia, including projects developed by First Solar and its affiliates, and by project partners that use First Solar-manufactured modules in their projects. Projects include a planned solar farm in San Luis Obispo County, California which will generate 550 MW of electricity when complete. In Ontario, First Solar has completed constructing an 80 MW solar farm in the City of Sarnia which is now the largest photovoltaic solar facility in the world.

Project Consultants

Independent project consultants retained to undertake reports and studies and/or assist in the REA process include:

Lakeshore Group
Suite 130, 250 Wellington St. W.
Toronto, ON, M5V 3P6
T: 416-364-5926

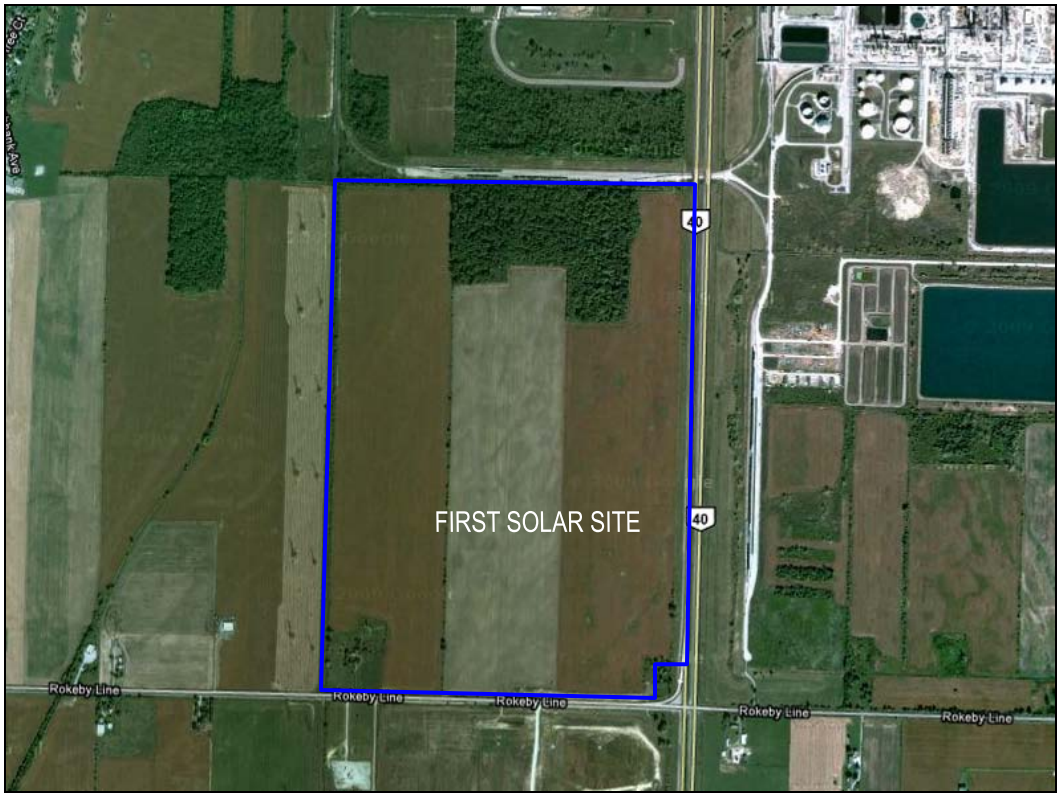
AMEC Earth & Environmental
A div. of AMEC Americas Ltd.
870 Confederation St.
Sarnia, ON. N7T 2E5
T: 519-337-5409

Golder Associates Ltd.
2390 Argentia Road
Mississauga, ON, L5N 5Z7
T: 905-567-4444

Timmins Martelle Heritage Consultants Inc.
584 Oxford St. East
London, Ontario N5Y 3J1
T: 519-641-7222

General Location and Site Details

The site of the proposed solar farm is located north of Rokeby Line, west of Highway 40 in the Township of St. Clair as shown below:



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The subject site is approximately 297 acres (120 ha) in size and is currently used for traditional agricultural purposes. The land uses surrounding the site are industrial to the north, east and south; and, agriculture uses separated by a hydro corridor and railway tracks to the west.

The property is owned by First Solar.

Project Description

A solar farm is proposed which will collect the energy from the sun using thin film photovoltaic modules and convert it to electrical energy for distribution to the local electricity distribution system. The proposed solar farm will be capable of producing 20 MW of electricity and will be developed within the boundaries of the subject site. The solar farm is designated as a "class 3" solar facility as defined by Section 4 of O. Reg. 359/09 regarding Renewable Energy Approvals. A class 3 solar facility is a renewable energy facility with a name plate power capacity greater than 10kW situated at any location other than being mounted on the roof or wall of a building.

Photovoltaic Technology Overview

The proposed solar farm will use thin film photovoltaic modules manufactured by First Solar. The modules utilize a thin film semi-conductor layer encapsulated between two sheets of glass that produce electricity when exposed to the sun's rays. Each module produces a total of approximately 75 watts of direct current ("DC") electricity. Solar modules are connected and

mounted together to form solar arrays, each containing many rows of solar modules. Depending on its size, a solar farm may contain many arrays, as shown in the image below:

Image Source: First Solar

The DC electricity produced by the solar arrays is collected and is converted into Alternating Current (AC) by inverters and then sent to a transformer to increase the voltage of the electricity to the same level as the local electricity distribution system. The inverters, located at various points throughout the site, are enclosed within a concrete housing for noise reduction and weather protection purposes. Metering, safety disconnect and remote trip equipment is located at the utility connection point where the solar farm is connected to the local electricity distribution system. The local utility or Hydro One can control the solar farm grid connection during power outages or grid disruptions to ensure the safe and reliable operation of the electricity system.

Construction of Project

Construction will take place over approximately 8-12 months and will generally consist of the following activities, some of which may occur concurrently:

Preparation: setup of portable offices and other temporary facilities, as described in the Construction Plan Report, and clearing and fencing of the temporary construction staging areas. In preparation for construction, surveying of the site will take place.

Construction of Internal Site Access Roads: Existing vegetation, top soil and subsoil will be

stockpiled, as required, in areas where access roads will be constructed. Sustainable soil management will be practiced where top soil will be kept separate from subsoils. Top soil will be stockpiled in berms which will be used during decommissioning to fill voids left from removal of access roads. The roads will be composed of gravel, or recycled concrete, and will be designed to aid in construction of the project and facilitate municipal fire truck and internal security / maintenance vehicular access.

Site Leveling / Drainage Improvements: The arrays require a relatively level and stable surface for installation. Based on site visits and preliminary studies, a portion of the site may be able to accommodate arrays after preparation by common agricultural techniques. However, grading and compaction may be required in select areas. Drainage Improvements as outlined in the drainage plan in the Design and Operation Report will be installed.

Trenching: Trenching to bury the AC and DC electrical cables will take place. The trenches will vary from 0.5 m to 1 m in width and will be about 1 m deep. Minimal ground disturbance will occur within the trenched corridors and they will be restored with backfill so the corridor can conform to the surrounding surface contours.

Installation of Posts, Tables and Modules: Vertical posts will be driven into the ground which will connect to tilt brackets which connect steel support tables to the vertical posts and provide proper panel orientation toward the sun. While cables are being laid in the trenches and combiner boxes are being installed, the modules are attached to the tables by rubber-padded clips. The modules are then connected by wire harnesses and jumpers to the electrical collection system, through the combiner boxes, and to the Power Collection Stations (PCS).

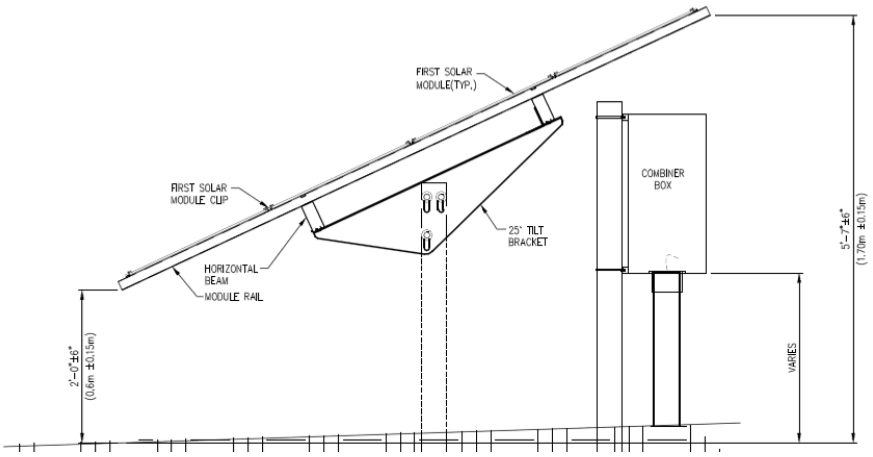
Construction of PCS and Combining Switchgear: Top soil will be removed from where the foundations for the 20 PCS shelter and 2 PV Combining Switchgear (PVCS) are housed so that the foundations can be constructed. Top soil will be stockpiled in berms on-site and will be utilized to fill the void left when the foundation is removed during decommissioning. The PCS shelters are pre-fabricated and will then be secured to the foundations. Each PCS shelter will contain two 500 kilowatt (kWac) inverters and one separate 1,000 kilovolt amp (kVA) transformer. Two PV Combining Switchgear (PVCS) houses will be constructed which will be located near the connection point to the local grid along Rokeby Line.

Fencing and Plantings: As required by the Electrical Safety Authority, a 2.1 meter high security fence with one access from Rokeby Line through a secured gate will be constructed around the arrays. Landscaping will be planted by a certified contractor and the areas under the array will be planted with short grass which will improve the soil quality over time. First Solar will also consider future cropland leases for sections of the property outside of the array areas.

Visibility

Given the low profile of the solar arrays used by First Solar, the solar farm will create a visual horizon similar to, or lower than, many other agricultural structures such as a ginseng farm or commercial greenhouses.

The solar arrays have a maximum height of less than 2 m and slope toward the ground at an angle suitable for maximum sun exposure.



Where appropriate, tree screens are used, alone or in conjunction with other visual barriers, along various segments of the project's boundary to provide a visual screen and enhance aesthetics as shown below.

First Solar tree screen at Sarnia Solar Farm (Image Source: First Solar)

Solar Farm Construction and the Natural Environment

Ensuring the protection and sustainability of the natural environment is a key consideration in any development. As part of its construction program, First Solar employs a variety of native grasses and other plants as groundcover between and under the solar arrays. This ground cover not only benefits soil quality, it improves stormwater runoff quality and the potential for erosion. Typical short grass plantings are shown in the image below at a solar farm in Dimbach Germany for which First Solar provided the modules:

Image Source: First Solar

Natural Heritage Resources

Because of its passive nature and limited land disturbance, the proposed solar farm will have minimal impacts on the natural environment. However, as part of the Renewable Energy Approval process, First Solar has prepared a Natural Heritage Assessment, Water Feature Assessment and an Environmental Impact Study (EIS) to identify any negative environmental effects that may result from engaging in the project and note appropriate mitigation measures. The EIS is required because the project location is proposed within 120 m of a woodlot. Further details about potential negative environmental effects on natural heritage features and proposed mitigation measures are available in the EIS. As part of the Renewable Energy Approval, the EIS has also been reviewed by the Ministry of Natural Resources. Any needed mitigation measures will be implemented.

Heritage and Archaeological Resources

As part of the Renewable Energy Approval Application, a Stage 1, 2 & 3 Archaeology Assessment was prepared. The Assessment found 4 archaeological sites. The Ministry of Culture has reviewed the aforementioned Assessments and advised that the provincial interest has been addressed.

As identified in the Heritage Assessment and Protected Properties Report dated November 23, 2009, there are no heritage resources within 125 meters of the property. This includes land subject to an agreement or covenant; cultural value, cultural significance, Heritage Conservation District, or a historic site.

Stormwater Management

During the site investigation and records review in the Environmental Impact Study the presence of 4 municipal drains in the general vicinity of the subject site were identified. Drainage from the site flows through the Lukey and Rumohr Drains into Baby Creek and subsequently the St. Clair River. Given that the existing grade of the site is proposed to be maintained to the greatest extent possible, and limited change to the imperviousness of the site is proposed, negative off-site stormwater impacts are not expected. Further details can be found in the Environmental Impact Study, Design and Operations Report and Construction Plan Report.

Traffic Generation

During construction of the solar farm, as with any construction project, there will be short term, intermittent traffic generated from the delivery of materials and arrival/departure of construction personnel. Due to the short duration of this phase of development and the small number of on-site employees required for regular operation (1-2), limited impact on the local road network and community traffic patterns will occur. Traffic studies have been prepared identifying the amount and types of traffic to be expected during the construction and operation

phases of the development. Mitigation measures, where required, will be implemented.

Air & Noise

The solar arrays and related equipment do not generate any air emissions other than a limited amount of noise that comes from the inverters, transformers and associated cooling fans located throughout the solar farm. All noise emissions must meet Ministry of the Environment (MOE) standards for noise levels at adjacent residences. These standards require that noise levels from the solar farm are literally “quieter than a library”, at 40 decibels maximum at the point of reception. Further details can be found in the Acoustic Assessment Report.

Water Use

Annual demand for water usage during operation of the facility is expected to be negligible. Water is not required for electricity generation, cooling, or module washing (rain water and snow are generally sufficient for cleaning modules).

During construction, water may be required for dust control and temporary sanitary facilities for workers. During construction, the project is expected to use a maximum of 100,000 litres per day during very dry, dusty days. During normal rainfall, construction water usage will be minimal (approximately 500 liters per day). The maximum daily water demand is expected to be during the first 65 days of construction, before site preparation is complete and after array construction has commenced.

First Solar does not plan to drill any new water wells on site and will use trucked in water supply during construction for dust control purposes.

Local Socio-Economic Benefits

Solar farm construction will create significant employment opportunities during the construction phase. There will be demand for construction and other skilled trades. Each 10 MW solar farm has hundreds of thousands of solar modules that must be put in place and connected to each other. Electricians are required for aboveground wiring and installation of the inverters, transformers and meters required to connect to the local electricity distribution system. Typically, a 10 MW solar farm will create the equivalent of about 50 jobs during the year of construction, or over 100,000 hours of skilled labour requirement.

In addition to direct construction employment, First Solar works with numerous local engineering and environmental consultants to help design the solar farm, and with many Ontario suppliers to provide equipment.

Local economic benefits will extend beyond the purchase of equipment to be used in the generation of solar electricity. For example, the local hospitality industry is expected to benefit from an increase in visitors and contractors associated with the construction and ongoing operation of the solar farm.

Decommissioning

First Solar was the first solar manufacturer to develop a pre-funded recycling program for its solar modules that enables substantially all components, including the glass and the encapsulated semiconductor material, to be recycled and processed into new solar modules or other products. Detailed information can be found about First Solar's comprehensive module collection and recycling program on its website (www.firstsolar.com). Further details can be found in the decommissioning Plan.

Required Permits

Subject to consultation with the Ministry, and in addition to the required Renewable Energy Approval, the project will require a Building and Land Use permit from the Ministry of Transportation; entrance permit from the Township of St. Clair; electrical permit from the Electrical Safety Authority; and, a building permit from Township of St. Clair.

Land Use Compatibility

The development of the proposed solar farm is encouraged by the Ontario government and has received from the Province a contract under Ontario's Renewable Energy Standard Offer Program (RESOP) to produce electricity, which will be fed into the local electricity distribution system.

The proposed solar farm is a passive land use and is fully compatible with the land uses in proximity to the subject site. There are no atmospheric emissions or ground vibrations emitted from the project and stormwater flows are not increased from pre-development flows. In addition, proposed plantings between and under the arrays will improve storm water run-off flows, provide erosion control and help to improve soil quality over time.

The proposed solar farm will be constructed, operated and decommissioned without impeding the land's ability to sustain traditional agriculture at the end of the project's life.

The low-profile character of the proposed solar farm arrays allows for easy screening, buffering and separation from any sensitive land uses.

Project Location Map

PROPOSED SOLAR FARM SITE
TOWNSHIP OF ST. CLAIR - MOORE SOLAR FARM