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1. **INTRODUCTION**

Windsor Solar LP proposes to develop a solar facility with a maximum name plate capacity of 50 megawatts alternating current (MWac), located on the Windsor International Airport property in the City of Windsor, Ontario (Figure 1). The Windsor International Airport is owned by the City of Windsor and operated by Your Quick Gateway (Windsor) Inc. (YQG). The renewable energy facility will be known as the Windsor Solar Project (the “Project”).

The Project will require approval under Ontario Regulation 359/09 – Renewable Energy Approval (REA) under Part V.0.1 of the *Ontario Environmental Protection Act*.

This Decommissioning Plan Report (DPR) describes how Windsor Solar LP proposes to restore the Project Location to a clean and safe condition suitable for the probable future use of the land. The report provides an overview of all anticipated activities during the decommissioning phase of the Project and outlines mitigation measures to address potential negative environmental effects as a result of these activities. It also discusses the restoration of land and water and the management of excess materials and waste as detailed in Table 1.

**Table 1: Checklist for Requirements under O.Reg. 359/09 – Decommissioning Plan Report**

<table>
<thead>
<tr>
<th>Required Documentation</th>
<th>Location in Report</th>
</tr>
</thead>
<tbody>
<tr>
<td>Procedures for dismantling or demolishing the facility.</td>
<td>Section 5.1, <em>Equipment Dismantling and Removal</em></td>
</tr>
<tr>
<td>Activities related to the restoration of any land and water negatively affected by the facility.</td>
<td>Section 5.3, <em>Site Restoration</em></td>
</tr>
<tr>
<td>Procedures for managing excess materials and waste.</td>
<td>Section 5.4, <em>Managing Excess Materials and Waste</em></td>
</tr>
</tbody>
</table>
2. THE PROPONENT

Windsor Solar LP is coordinating and managing the approvals process for the Project. Windsor Solar LP is located at 2050 Derry Road West 2nd Floor, Mississauga, ON, L5N 0B9 (1-866-236-5040). Dillon Consulting Limited (Dillon) has been retained by Windsor Solar LP to prepare the REA application for the Project. The contact at Dillon is:

| Full Name of Company:          | Dillon Consulting Limited |
| Prime Contact:                | Bruce McAllister, Project Manager |
| Address:                      | 10 Fifth Street South, Chatham, Ontario, N7M 4V4 |
| Telephone:                    | (519) 354-7802 x3314 |
| Fax:                          | (519) 354-2050 |
| Email:                        | BMcAllister@dillon.ca |
3. PROJECT LOCATION

The proposed Class 3 Solar Facility is to be located within the YQG, Windsor International Airport property, in the City of Windsor. The overall optioned lands available for development consist of approximately 175 hectares (432 acres) and the proposed Project Location is generally bounded by Rhodes Drive to the north, Division Road to the south, Lauzon Parkway to the east, and Walker Road to the west. Of the optioned lands, approximately 128.3 hectares (317 acres) will be occupied by components to make up the Project. The geographic coordinates of the centroid of the proposed Project Location are as follows:

- Latitude: 42° 16’ 43.07” N
- Longitude: 82° 56’ 9.56” W

Figure 1 shows the general location of the Project in Southwestern Ontario. “Project Location” is defined in Ontario Regulation 359/09 to be “a part of land and all or part of any building or structure in, on or over which a person is engaging in or proposes to engage in the project”. The Project Location as currently shown on Figure 2 identifies the maximum buildable area and will be further refined around the project components in the final reports. Further information on facility components making up the Project Location is provided in Sections 4 and 5 of the Design and Operations Report.
FIGURE 1
GENERAL PROJECT LOCATION

WINDSOR SOLAR PROJECT

PROJECT LOCATION

U.S.A.

LAKE ERIE

LAKE ST. CLAIR

WINDSOR

COUNTY ROAD 42

CHATHAM

SARNIA

LONDON

LEAMINGTON

WINDSOR SOLAR PROJECT

FIGURE 1
GENERAL PROJECT LOCATION

MAP DRAWING INFORMATION:
DATA PROVIDED BY MNR
MAP CREATED BY: GM
MAP CHECKED BY: MB
MAP PROJECTION: NAD 1983 UTM Zone 17N

FILE LOCATION: I:\GIS\149152 - Samsung Windsor\mxd\PDR

PROJECT: 149152
STATUS: DRAFT
DATE: 9/22/2014
The project location is not on or adjacent to any areas subject to Land Use Plans specifically the Niagara Escarpment, Lake Simcoe Watershed, Oak Ridges Moraine or the Greenbelt.
4. DECOMMISSIONING PLAN OVERVIEW

Decommissioning consists of the removal of above-ground and below-ground facility components, management of excess materials and waste and the restoration of Project Location lands and waters, as applicable. Activities are expected to take between 6-9 months.

Potential negative environmental effects from decommissioning of the facility will be mitigated through the measures outlined in the Environmental Effects Mitigation and Monitoring Plan (EEMMP) (see Appendix D of the Design and Operations Report). These include the use of erosion and sediment control measures, limiting the use of heavy machinery (where possible), and maintaining a buffer from natural features. Windsor Solar LP’s staff and contractors will be made aware of the environmental management commitments contained in these reports to ensure they are implemented.

Future consultation will occur with the City of Windsor and YQG prior to decommissioning to discuss preferences and Windsor Solar LP’s commitments and obligations to restore the Project Location to its pre-construction condition or a similar state. All decommissioning and restoration activities will adhere to the requirements of the Ontario Health and Safety Act (1990) and will be in accordance with all applicable federal, provincial and local permitting requirements. As with the construction phase, an on-site manager responsible for safety will be present on-site (generally the contractor’s project manager) while decommissioning activities are taking place.

The decommissioning plan is based on current procedures and experience. These procedures may be subject to revision based on new experiences and requirements over time. At the time of decommissioning various options and procedures will be re-evaluated to ensure that decommissioning is safe and beneficial to the environment. Soil erosion and sedimentation control measures, as well as other mitigation measures used during construction will be re-implemented during the decommissioning phase and until the site is stabilized.

4.1 Current and Probable Future Land Use

The proposed solar facility will be located within the boundary of the YQG, Windsor International Airport. The Project Location is designated “Airport” and “Future Employment Area” in the Official Plan and is adjacent to an “Open Space” designation in the southeast corner of the airport lands. The majority of the Project Location is currently rented out and farmed with cash crops and/or consists of mowed fields.

A search and analysis of available records identified that the Project is not located in areas subject to Provincial Land Use Plans; specifically, the Project does not lie within the Niagara Escarpment, Lake Simcoe Watershed, Oak Ridges Moraine or the Greenbelt Provincial Plan areas.

The future land use of the Project Location is subject to change at the time of decommissioning from its current agricultural use. Although presently used for agriculture, the current Official Plan designation does not limit the land to that use. Due to the variability in the future use of
the land, its use will be confirmed through future consultation with the City of Windsor and YQG prior to decommissioning to determine the most appropriate action for restoring the land.

4.2 Decommissioning During Construction (Abandonment of Project)

In the unlikely event that construction ceases prior to facility completion and operation, with no expectation of construction re-start, the Project would be decommissioned in a manner as described in Section 5 of this report. Any installed components will be removed and managed as per Section 5.3 and the site will be restored to its original pre-construction condition, or a similar state as per Section 5.2 in consultation with the City of Windsor and YQG. Potential negative impacts related to construction and decommissioning (e.g., dust and sedimentation or erosion) and appropriate mitigation measures are addressed in the EEMMP (see Appendix D of the Design and Operations Report) and in the plans for final decommissioning and site restoration as outlined in this document.

4.3 Decommissioning After Ceasing Operation

Properly maintained PV panels have an expected lifespan of thirty to fifty years, or more, with equipment replacement and repowering. However, this report assumes the decommissioning process will begin at the end of the power purchase agreement with the OPA (20 years). However, following the term of the agreement, the life of the facility could be extended upon consent of the City of Windsor. At the time of decommissioning, the installed components will be removed and reused/recycled, where possible, and the site restored in accordance with the activities discussed in Table 2 and Table 3. As with the steps for decommissioning during construction, mitigation measures, as outlined in the EEMMP, will be implemented. All removal of equipment will be done in accordance with the applicable regulations and manufacturer recommendations.
5. DECOMMISSIONING OF THE RENEWABLE ENERGY GENERATION FACILITY

5.1 Equipment Dismantling and Removal

After the facility has been disconnected from the utility power grid and all electrical components have been disconnected within the facility, components will be dismantled and removed as outlined in Table 2. Decommissioning will be undertaken by licensed subcontractors using similar techniques and equipment as those employed during construction.

Table 2: Equipment Dismantling and Removal

<table>
<thead>
<tr>
<th>Activity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Above-ground Structures</strong></td>
<td></td>
</tr>
<tr>
<td>PV Arrays</td>
<td>• Disconnect all above ground wirings, cables and electrical interconnections.</td>
</tr>
<tr>
<td></td>
<td>• Remove PV modules from racks, temporarily store on-site in delineated area before removal by truck to appropriate facility(ies).</td>
</tr>
<tr>
<td></td>
<td>• Dismantle and remove all racks and support structures, including extraction of in-ground support structures (see below). Temporarily store on-site before removal by truck to recycling facility.</td>
</tr>
<tr>
<td>Medium Voltage (MV) Stations, Substation</td>
<td>• Disconnect and remove all electrical equipment.</td>
</tr>
<tr>
<td></td>
<td>• Remove inverters and associated components including combiners, medium voltage transformers, medium voltage switch gear and transport off-site to appropriate facility.</td>
</tr>
<tr>
<td></td>
<td>• Unbolt high voltage substation transformer and remove from the foundation with a crane and dismantle all other substation component and transport off-site to appropriate facility.</td>
</tr>
<tr>
<td></td>
<td>• Remove concrete foundations for MV Stations and substation components (see below).</td>
</tr>
<tr>
<td>Access roads and other components</td>
<td>• Consult with the City of Windsor and YQG to determine if access roads should be left in place for their continued use.</td>
</tr>
<tr>
<td></td>
<td>• If one or more access roads are removed after consultation, the aggregate materials will be excavated by a backhoe/front-end loader, along with any underlying geotextile fabric.</td>
</tr>
<tr>
<td></td>
<td>• All compacted areas will be tilled in a manner adequate to restore the sub-grade material to the proper density and depth, consistent with the surrounding fields. Clean, compatible sub-grade material, followed by topsoil will be applied as necessary.</td>
</tr>
<tr>
<td></td>
<td>• Removal of the perimeter fencing, followed by removal of fence pole foundations will be completed.</td>
</tr>
</tbody>
</table>
### Activity

<table>
<thead>
<tr>
<th>Below-ground Structures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Underground cables</td>
</tr>
<tr>
<td>• Underground electrical lines running between inverters and the substation will be removed.</td>
</tr>
<tr>
<td>Equipment foundations</td>
</tr>
<tr>
<td>• The substation, MV Stations and steel racking for the solar modules will have foundations that require removal. These foundations will consist of steel piles and concrete. Other underground infrastructure requiring removal may include concrete protective electrical structures. It is anticipated that structures will be fully removed from the ground and that the affected area shall be backfilled as necessary.</td>
</tr>
<tr>
<td>• In the event that a structure breaks during excavation, any portion below 1.2 metres in depth will remain in place; the portion above 1.2 metres will be removed. Waste concrete will be recycled off-site by a concrete recycler or crushed on-site and used as backfill material.</td>
</tr>
<tr>
<td>• All foundation materials will be removed from the site via truck and managed at appropriate facilities.</td>
</tr>
</tbody>
</table>

### 5.2 Environmental Effects

Decommissioning activities, particularly the removal of project components and grading could cause negative environmental effects similar to those of the construction phase. For example, there is the potential for disturbance (erosion/ sedimentation/ fuel spills) to adjacent watercourses or significant natural features. Mitigation measures similar to those employed during the construction phase of the Project will be implemented (see EEMMP in the Design and Operations Report). These will remain in place until the site is stabilized in order to mitigate erosion and silt/sediment runoff and any impacts on the significant natural features or water bodies located adjacent to the Project Location.

Road traffic may temporarily increase due to the movement of decommissioning crews and equipment. There may be an increase in particulate matter (dust) in adjacent areas during the decommissioning phase. Additionally, there will be emissions from the diesel engines of construction machinery and equipment which may cause odour disturbance and localized impacts to air quality. Decommissioning activities may lead to temporary elevated noise levels from heavy machinery and an increase in trips to the Project Location. Work will be undertaken during daylight hours and conform to all local noise By-laws. Please see Section 6 of the Construction Plan Report for a detailed account of mitigation measures.

A summary of potential environmental effects and proposed mitigation measures can be found in the EEMMP, (see Appendix D of the Design and Operations Report).
5.3 Site Restoration

The current Project Location is within the YQG, Windsor International Airport property, but has been primarily used for agricultural production. A detailed description of environmental conditions and natural features at the Project Location prior to construction is provided in Section 11 of the Environmental Impact Study Report as part of the Natural Heritage Assessment. Through the decommissioning phase, the Project Location could be restored to a state similar to its former condition or to the condition of the future intended land use.

All project components are expected to be removed. The access roads will either be left at the request of the City and YQG or graded to restore terrain profiles. If necessary, the use of a sub-soiler may be required to relieve compaction and restore the soil conditions for agricultural activities. Rehabilitated lands may be seeded with a low-growing species such as clover to help stabilize soil conditions, enhance soil structure and increase soil fertility.

Three water courses, meeting the definition of a water body under Ontario Regulation 359/09, occur within the Project Location and/or the surrounding 120 m. Potential impacts of installing cable beneath the water bodies will be minimized by the use of the Operational Statement prepared by Fisheries and Oceans Canada (DFO) for directional drilling. The operation of the solar facility does not release emissions which could pollute the air and water. Thus, it is not anticipated that decommissioning activities would include the restoration of water bodies (see the Design and Operations Report Appendix D for further information). The site will be restored so that the post decommissioning off-site drainage patterns and quality/quantity of stormwater will be similar to pre-construction conditions, subject to modifications based on post-decommissioning land use as decided by YQG at the time of decommissioning. It is not expected that the lands surrounding the facility will require any special remediation since any hazardous materials used on the site will be contained with adequate spill protection.

Prior to abandonment of the site, a land survey will be conducted to ensure that conditions satisfy those set out in Ontario Regulation 359/09 and any agreements with agencies (e.g., conservation authority, MOECC), the Airport, and municipality.

5.4 Managing Excess Materials and Waste

During the decommissioning phase a variety of excess materials and wastes (listed in Table 3) will be generated. Most of the materials used in a solar facility are reusable or recyclable and some equipment may have manufacturer take-back and recycling requirements. Any remaining materials will be removed and disposed of off-site at an appropriate facility. Windsor Solar LP will establish policies and procedures to maximize recycling and reuse, and will work with manufacturers, local subcontractors and waste firms to segregate material to be disposed of, recycled and/or reused.

Windsor Solar LP will be responsible for the logistics of collecting and recycling the PV modules and to minimize the potential for modules to be discarded in the municipal waste stream.
Windsor Solar LP proposes to determine the best way of recycling the solar modules using best management practices at the time of decommissioning.

Table 3: Management of Excess Materials and Waste

<table>
<thead>
<tr>
<th>Material/Waste</th>
<th>Means of Managing Excess Materials and Waste</th>
</tr>
</thead>
<tbody>
<tr>
<td>PV panels</td>
<td>• If there is no possibility for reuse, approximately 197,000 to 208,000 PV panels will either be returned to the manufacturer for appropriate recycling/disposal or will be transported to a recycling facility where the glass, metal and semiconductor materials will be separated and recycled. Panels will be managed as per best management practices that may be in effect at the time of decommissioning.</td>
</tr>
<tr>
<td>Metal array mounting racks and steel supports</td>
<td>• These materials will be recycled off-site at an approved facility.</td>
</tr>
<tr>
<td>Transformers and substation components</td>
<td>• Oil from the transformers will be removed on-site to reduce the potential for spills and will be transported to an approved facility for disposal. The substation transformer and step-up transformers at the MV Stations will be transported off-site to be sent back to the manufacturer, recycled, reused, or safely disposed off-site in accordance with current standards and best practices.</td>
</tr>
<tr>
<td>Inverters, fans, fixtures</td>
<td>• The metal components of the inverters, fans and fixtures will be recycled, where possible. Remaining components will be disposed of in accordance with the standards of the day.</td>
</tr>
<tr>
<td>Gravel (or other granular)</td>
<td>• It is possible that the City may accept uncontaminated material without processing for use on local roads, however, for the purpose of this report it is assumed that the material will be removed from the Project Location by truck to a location where the aggregate can be processed for salvage. It will then be reused as fill for construction. In the unlikely event that the aggregate or portions of the aggregate is contaminated it will be transported to an MOECC-approved hazardous waste/disposal facility.</td>
</tr>
<tr>
<td>Geotextile fabric</td>
<td>• It is assumed that during excavation of the aggregate, a large portion of the geotextile will be “picked up” and sorted out of the aggregate at the aggregate reprocessing site. Geotextile fabric that is remaining or large pieces that can be readily removed from the excavated aggregate will be disposed of off-site at an MOECC-approved disposal facility.</td>
</tr>
<tr>
<td>Material/Waste</td>
<td>Means of Managing Excess Materials and Waste</td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Concrete inverter/transformer foundations</td>
<td>• Concrete foundations will be broken down and transported by certified and licensed contractor to a recycling or MOECC-approved disposal facility.</td>
</tr>
<tr>
<td>Cables and wiring</td>
<td>• The electrical line that connects the substation to the point of common coupling will be disconnected and recycled, if possible, or disposed of at an approved facility. Associated electronic equipment (isolation switches, fuses, metering) will be transported off-site to be sent back to the manufacturer, recycled, reused, or safely disposed off-site in accordance with current standards and best practices.</td>
</tr>
<tr>
<td>Fencing</td>
<td>• Fencing will be removed and recycled at a metal recycling facility.</td>
</tr>
<tr>
<td>Debris</td>
<td>• Any remaining debris on the site will be separated into recyclables/residual wastes and will be transported from the site and managed as appropriate.</td>
</tr>
</tbody>
</table>

Recyclable materials will be transported off-site by truck and managed at appropriate facilities in accordance with provincial waste management regulations. Residual waste materials for disposal will be removed by a licensed contractor and transported to an MOECC-approved facility. It is not anticipated that any waste materials will be left on-site with the possible exception of foundations or steel piles broken off below 1.2 metres in depth and/or disconnected underground electrical wires buried below 1 metre in depth. The final decision on waste disposal or recycling will be made by the on-site contractor who will refer to the standards of the day for waste generated at the facility. Given that methods of managing wastes and recyclables may change in the future, information in this report will be updated as necessary to conform to future local and provincial requirements.
6. EMERGENCY RESPONSE AND COMMUNICATIONS PLANS

The Emergency Response and Communications Plans (ERCPs) are currently being prepared in consultation with the City and YQG. They are discussed in the Design and Operations Report and will be in place prior to construction. The plans will cover the entire life of the Project and any details specific to decommissioning activities.
7. **DECOMMISSIONING NOTIFICATION**

The process for notification of decommissioning activities will be the same as the process for notification of construction activities and non-emergency communications as outlined in the ERCPs. Decommissioning activities may require the notification of stakeholders given the potential for increased noise and traffic volumes at the Project Location. The local municipality and YQG, Windsor International Airport, in particular, will be notified prior to commencement of any decommissioning activities.

In accordance with MOECC requirements, six months prior to decommissioning, Windsor Solar LP will update their list of stakeholders and notify, as appropriate, of decommissioning activities. Federal, provincial, local and airport authorities will be notified, as needed to discuss the potential approvals required to engage in decommissioning activities.
8. OTHER APPROVALS

Well-planned and well-managed renewable energy facilities are not expected to pose environmental risks at the time of decommissioning. Windsor Solar LP will ensure that the decommissioning stage of the Project is carried out in accordance with REA requirements and with the measures and practices described in this report.

Decommissioning of the Project will follow standards of the day. Decommissioning activities may also require permits from other government agencies or entities, which are expected to be similar to those required in the construction phase of the Project. Windsor Solar LP will ensure that these are obtained prior to decommissioning. Authorization or permits may be required from the following:

- YQG, Windsor International Airport
- City of Windsor
- County of Essex
- Ministry of Transportation
- Ministry of Natural Resources and Forestry
- Ministry of the Environment and Climate Change
- Ministry of Tourism, Culture and Sport
- Transport Canada

The Decommissioning Plan Report will be updated as necessary in the future to ensure that changes in available technology and site restoration methods are taken into consideration.
9. CONCLUSIONS

This Decommissioning Plan Report has been completed to assist Windsor Solar LP and any subsidiary or successors in fulfilling regulatory requirements as mandated by the provincial government agencies for the decommissioning of the Project. This report is consistent with the provision of Ontario Regulation 359/09 for a solar facility. In the event of the abandonment of the proposed facility or in the event that the solar operation ceases, Windsor Solar LP and any subsidiary or successors will adhere to all decommissioning requirements provided in this report, or stipulated by the MOECC as a condition of approval, and will ensure that the Project Location is appropriate for probable future use. It is the overall conclusion of this Decommissioning Plan Report that the decommissioning of Project and any ancillary equipment will be conducted in such a manner as to ensure that there will be no significant negative environmental or social effects.