



**OSTRANDER POINT WIND ENERGY PARK
DECOMMISSIONING PLAN REPORT**

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Prepared for:

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Executive Summary

Gilead Power Corporation (“Gilead”) is an Ontario-based private, renewable energy development company dedicated to providing renewable energy for Ontario. In response to the Government of Ontario's initiative to promote the development of renewable, pollution-free electricity in the province, Gilead is proposing to develop the Ostrander Point Wind Energy Park (the Project) in Prince Edward County, Ontario.

The basic components of the Project include nine (9) GE xl 2.5 MW wind turbine generators with a total installed nameplate capacity of 22.5 MW, transformers included within each turbine, one on-site substation including transformer and electrical collector lines. This system will transport the electricity generated at the wind farm to Hydro One Networks Inc.'s (Hydro One's) Distribution Network. The Project also includes an existing 60 m high meteorological testing tower (MET tower), roads to access the turbines for on-going maintenance as well as electrical equipment and systems required for interconnection to the Hydro One grid. All Project components will be situated exclusively on Crown land, known as the Ostrander Point Crown Land Block.

Gilead retained Stantec Consulting Ltd. (Stantec) to prepare a Renewable Energy Approval (REA) Application, as required under Ontario Regulation 359/09 - Renewable Energy Approvals under Part V.0.1 of the Act of the *Environmental Protection Act* (O. Reg. 359/09). This Decommissioning Plan Report is one component of the REA Application for the Project, and has been prepared in accordance with O. Reg. 359/09 and the Ontario Ministry of Natural Resources' (MNR's) *Approval and Permitting Requirements Document for Renewable Energy Projects* (September 2009).

The following table summarizes the documentation requirements of the Decommissioning Plan Report as specified under Ontario Regulation 359/09.

Report Requirements (as per O. Reg. 359/09 – Table 1)

Requirements	Completed	Section Reference
Set out a description of plans for the decommissioning of the renewable energy generation facility, including the following: 1. Procedures for dismantling or demolishing the facility.	✓	2.0
2. Activities related to the restoration of any land and water negatively affected by the facility.	✓	3.0
3. Procedures for managing excess materials and waste.	✓	2.0

The MNR has outlined requirements for the Decommissioning Plan which indicate that a project's location is to be restored to a "clean and safe condition". This will be determined by the MNR on an individual project basis. The following table describes the specifics of the requirement as identified in MNR's *Approval and Permitting Requirements Document for Renewable Energy Projects* (September 2009).

Additional Requirements (as per MNR Specifications)

Requirements	Completed	Section Reference
Retiring, abandoning, dismantling, or removing from active service, working order, or operation all components of the renewable energy project, including access roads.	✓	2.0

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1.0 Overview

Gilead Power Corporation (“Gilead”) is a renewable energy development company that is privately owned and based in Scarborough, Ontario. Gilead is proposing to develop the Ostrander Point Wind Energy Park (the Project) in Prince Edward County, Ontario, in response to the Government of Ontario’s initiative to promote the development of renewable electricity in the province.

The basic components of the Project include nine (9) GE xl 2.5 MW wind turbine generators with a total installed nameplate capacity of 22.5 MW, transformers included within each turbine, one on-site substation including transformer and electrical collector lines. This system will transport the electricity generated at the wind farm to Hydro One Networks Inc.’s (Hydro One’s) Distribution Network. The Project also includes an existing 60 m high meteorological testing tower (MET tower), access roads to the turbines for on-going maintenance as well as electrical equipment and systems required for interconnection to the Hydro One grid. All Project Components will be situated exclusively on Crown land, known as the Ostrander Point Crown Land Block.

The “Project Location” includes any airspace and all parts of the land in, on or over which the Ostrander Point Wind Energy Park project is proposed. (the site plan is provided within the **Project Description Report**).

Gilead retained Stantec Consulting Ltd. (Stantec) to prepare a Renewable Energy Approval (REA) Application, as required under Ontario Regulation 359/09 - Renewable Energy Approvals under Part V.0.1 of the Act of the Environmental Protection Act (O. Reg. 359/09). According to subsection 6.(3) of O. Reg. 359/09, the Project is classified as a Class 4 Wind Facility and will follow the requirements identified in O. Reg. 359/09 for such a facility.

In addition, the Project is located on Crown land and the Ontario Ministry of Natural Resources (MNR) is responsible for the management and administration of Crown land. In order to support Ontario’s objective of promoting renewable energy sources, the MNR provides opportunities for Crown land to be used to develop renewable energy projects, including commercial wind power projects, via a “Commercial Wind Energy Lease”. This lease grants land from the Crown that conveys a leasehold interest in public land for the purpose of construction, maintaining and operating a wind park. The term of the lease will be for 25 years with one extension for a further term of 15 years.

This Decommissioning Plan Report is one component of the REA Application for the Project, and has been prepared in accordance with O. Reg. 359/09, and the MNR’s Approval and Permitting Requirements Document for Renewable Energy Projects (September 2009).

2.0 Decommissioning

The wind turbines used for the Project have a typical operational lifespan of 25 years. At the end of the equipment's useful life, the wind farm components including the turbines will be decommissioned as described below. Given that the Project is located entirely on Crown Land, the final site condition and decommissioning requirements will be confirmed with the MNR prior to decommissioning of the Project. If the economics of wind power remain viable at that time, the facility could be "repowered" with new technology. This process may include the replacement and/or upgrading of Project components, however specific details are unknown at this time as technological improvements over the next 20+ years are currently unknown. However, prior to any "repowering" works taking place, Gilead will prepare a report detailing the proposed works in accordance with the applicable legislation at that time.

2.1 DECOMMISSIONING DURING CONSTRUCTION (ABANDONMENT OF PROJECT)

In the event that Gilead cannot successfully complete the construction of the Project (e.g. due to financial considerations), it is envisioned the rights to the Project would be sold and the Project would be successfully constructed by the purchasing developer. However, in the event that the Project is not purchased by another developer, Gilead will be responsible for the decommissioning of the Project. The decommissioning process to be followed and the measures that will be implemented to mitigate any impacts resulting from the abandonment of the Project will be the same as those detailed below for decommissioning after ceasing operation of the Project.

2.2 DECOMMISSIONING AFTER CEASING OPERATION

2.2.1 Turbines and MET Tower

The turbines and MET tower can be disassembled into their original component parts. A crane is used to carry out the reverse sequence of steps that occurred during construction (detailed throughout the **Construction Plan Report**), namely:

- Lowering hub and blade assembly
- Lowering ring generator
- Lowering nacelle
- Decoupling and lowering the tower sections

Once the components are disassembled and at ground level (within the same laydown areas beside each turbine as described in the **Construction Plan Report**), the materials will be broken down into manageable sizes to enable transport to various salvage facilities (to be determined prior to decommissioning and in discussions with the local municipality). The main

sources of salvage material are steel from the tower, copper from the ring generator and conductors. All non-salvageable components will be processed and safely transported to an MOE approved disposal facility. The turbine foundations will be partially removed to a depth to be defined by the MNR (prior to decommissioning) to return the site to a clean and safe condition. No blasting is anticipated to be required to remove the turbine foundations. The costs for removal of the turbines and foundations will be the responsibility of the owner of the Project or the purchaser of the turbine materials.

2.2.2 Electrical System

Although there are no known hazards from the presence of unused underground cables, all electrical infrastructure including the underground collector system, grounding mesh, step-up transformers, grid interconnection line, and substation equipment will be removed and taken off site to either a recycler or an MOE-approved disposal facility (to be determined prior to decommissioning and in consultation with the local municipality). The removal of the collector system will be in a reverse manner as the installation of the collector system (described in the **Construction Plan Report**).

2.2.3 Access Roads and Pads

All access roads, crane pads (turbine assembly/disassembly area), and the substation pad will be removed to a depth to be defined by the MNR to return the site to a clean and safe condition. The access roads, crane pads and substation pad areas will be returned to a similar condition prior to project commencement and in a manner as specified in **Section 3.0**. All excess granular materials at ground level will be removed from the site and delivered to a location as close to the site as possible. No new culvert installations or enlargements to the access roads will be required for decommissioning of the Project so that no areas beyond those occupied by Project infrastructure during construction and operation will be required and/or impacted during decommissioning.

3.0 Site Rehabilitation/Restoration

A description of the existing natural features of the Project Location is provided within the **Natural Heritage Assessment/Environmental Impact Study**. The Project is located on a 324-hectare tract known as the Ostrander Point Crown Land Block. The site was the former South Bay Rocket and Air to Ground Gunnery Range operated by the Department of National Defence in the 1940's. The Ostrander Point Crown Land Block has also been designated a Resource Management Area by the MNR. The site is currently undeveloped and consists primarily of shrub/open land.

The operator of the Project will develop a Rehabilitation Plan for areas disturbed by the Project that is designed to restore habitat in areas affected by Project-related equipment. This plan will be developed in consultation with the appropriate agencies, including the MNR, prior to the decommissioning of the Project.

It is envisioned that the Rehabilitation Plan will include, but not be limited to the following;

- Specified disturbed areas such as access roads, turbine locations, and substation will be revegetated using native plant material and seeds appropriate for the Project site or allowed to revegetate naturally and will be determined during discussions with the MNR prior to site remediation.
- Topsoil will be restored and seeded with plants approved by the MNR (if revegetation is required). Areas such as crane pads and access roads which may become compacted during decommissioning will be decompact and restored to pre-existing conditions.

The Rehabilitation Plan may also involve a monitoring period which allows for the Project area to experience seasonal changes and help determine if additional restoration is required.

Any proposed decommissioning works within or near watercourses and/or aquatic habitat will be discussed with the MNR and Quinte Conservation (if applicable) to determine any site specific mitigation and/or remediation plans. It is envisioned that the same mitigation and monitoring measures implemented during construction will be utilized for the decommissioning of the Project.

Although strict spill prevention procedures will be in place during operation, there is the potential through the routine operation, maintenance, and decommissioning process for small spills to occur. Should soil contaminants be noted, the impacted soils will be delineated, excavated and removed, to the standards of the day. The contaminated material will be disposed at an MOE-approved and appropriate facility. The removed soils will be replaced with appropriately compatible material. No hazardous materials or wastes such as used lubricating oils will be stored on-site during operation and maintenance of the Project. Provided the Project is operated and maintained in-line with industry best practices there should be no significant environmental liabilities associated with cleanup or remediation. As noted above, the costs for

removal of Project infrastructure will be the responsibility of the owner of the Project or the purchaser of the reusable materials.

4.0 Emergency Response and Communications Plans

The following programs, plans, and procedures described within the **Design and Operations Report** will be carried forward during the decommissioning of the Project.

Environmental Procedures

- *spills and releases*: to identify the specific procedures for the prevention, response, and notification of spills. In addition, it will establish the general procedures for spill clean-up, personnel training, and material handling and storage to prevent spills.
- *hazardous waste management*: to outline the procedures for proper identification, storage, handling, transport, and disposal of hazardous waste. In addition, the procedures will outline specific requirements for personnel training, emergency response, product review and approval, and record keeping.
- *non-hazardous waste management*: to establish alternative procedures for the management and disposal of used lubricants, used drums, and general waste.

Occupation Health and Safety Procedures

The firm responsible for decommissioning will ensure employee health and safety is maintained and will also implement the following safety procedures and protocols as appropriate in an effort to ensure employee safety is addressed throughout decommissioning activities:

- personal protective equipment (PPE), including non-slip footwear, eye protection, clothing, and hardhats, will be worn by personnel when on duty;
- elevated platforms, walkways, and ladders will be equipped with handrails, toeboards, and non-slip surfaces; and,
- electrical equipment will be insulated and grounded in compliance with the appropriate electrical code.

Incidents in the work place have the potential to cause personal injury and property damage. As appropriate, a master Incident Report that documents illnesses and accidents will be maintained. The Incident Report should document all activities resulting in incapacity to work for at least one full workday beyond the day on which the illness or accident occurred. As required, records will also be maintained noting the total number of days of absence from work as a direct result of the illness or accident.

As appropriate, the firm responsible for decommissioning will develop or have an existing training program to ensure personnel receive appropriate training in relation to decommissioning programs, environmental, health, and safety procedures, and the emergency response plan.

Emergency Response Plan

The Emergency Response Plan developed for the construction and operation of the Project will be carried forward and followed during decommissioning of the Project (see the **Construction Plan Report** and **Design and Operations Report** for additional detail).

Response and Public Safety Plan

The Response and Public Safety Plan detailed in the **Design and Operations Report** includes Project updates/notifications, Complaint Response Protocol and Public Safety Plan. The Response and Public Safety Plan will be utilized during the decommissioning of the Project. This includes the actions to be taken during the decommissioning of the Project to inform the public, aboriginal communities, and the County regarding activities occurring at the Project site (including emergencies), means by which stakeholders can contact the decommissioning firm, and means by which correspondence sent to the decommissioning firm and/or Gilead will be recorded and addressed.

4.1 DECOMMISSIONING NOTIFICATION

As part of the Response and Public Safety Plan, actions will be taken prior to and during decommissioning to inform the public, aboriginal communities, and the County regarding activities occurring at the Project site. Notification of decommissioning will be provided to the County, aboriginal communities, stakeholders, MNR and other interested agencies prior to decommissioning works commencing. Notification may be in the form of letters, newspaper notices, updates on the Project website (www.gileadpower.com) or direct communications.

5.0 Other Approvals

Discussions have taken place with the local municipality to determine if any approvals are required from the County prior to decommissioning. Any permits that may be required from the local municipality or other agencies (i.e. MNR, QC) will be confirmed and obtained prior to decommissioning of the Project.

6.0 Conclusion and Signatures

This Decommissioning Plan Report for the Ostrander Point Wind Energy Park has been prepared in accordance with O. Reg. 359/09 and the MNR Approval and Permitting Requirements Document for Renewable Energy Projects. The decommissioning of the Project will be completed in a manner similar to the construction of the Project and the area will be restored to a clean and safe condition in coordination with the MNR, MOE, local municipality and Quinte Conservation.

Stantec Consulting Ltd. prepared this Decommissioning Plan Report for Gilead Power Corporation for the Ostrander Point Wind Energy Park. Gilead is committed to implementing this plan as it applies to the decommissioning of the Project.

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