Kent Breeze Corporation MacLeod Windmill Project Inc.

KENT BREEZE WIND FARMS

Decommissioning Plan Report MAY 2010



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1. INTRODUCTION

Decommissioning the Kent Breeze Wind Farms means withdrawing the wind turbines from active service and remediating the lands for agricultural purposes. This plan describes the process and requirements for the removal of project components at the end of their useful function for the production of renewable electrical energy. Alternatively, in worst case scenarios, decommissioning could occur during construction due to unforeseen economic circumstances. The objective is to remove any improvements to the land and restore it to the same agricultural function as existed prior to the construction of the wind farms. The cost of decommissioning will be borne by the owner of the wind farms and may be recovered through the sale and reuse of project components as recycled material.

Decommissioning involves the following actions:

- 1. Removal of the wind turbines and all electrical appurtenances for salvage;
- 2. Removal of foundations and any access roads not wanted for future farming purposes to a depth suitable for ploughing (approximately 1.0 metres);
- Replacement of topsoil to a depth of surrounding undisturbed lands and plant with suitable ground cover dependant on time of year and in consultation with farm operator;
- Ensuring that there are no environmental impacts related to decommissioning activities.

It is expected that decommissioning procedures will take approximately 3 months to complete.



2. DECOMMISSIONING PROCESS DESCRIPTION

The following indicates the procedure for the disassembling of the Kent Breeze Wind Farms infrastructure; and is applicable to decommissioning both during construction or after operations have ceased:

Physical Works/Activities	Description of Activity
Blade, Generator and Tower Disassembly	The blade, generator and towers would be disassembled using a crane and removed from the site using a flatbed truck. Generators and towers will be sold for their recyclable resource value. Blades will be disposed of at a landfill.
Removal of electrical appurtenances	Electrical equipment will be removed from the site on flatbed trucks for salvage based on their value as a recyclable resource.
Removal of Access Roads	All permanent access roads will be maintained for farming purposes if so desired by the owners of the land. The reason for not removing access roads is that it allows the farmer of the land continued, and possibly improved access to fields. This decision will be left to the landowner at the time of decommissioning. All unwanted access roads would be restored as per method used for decommissioning concrete foundations described below. Any aggregate removed from on-site will be disposed of at a recycling facility or, if unavailable or impractical, at a licensed
	landfill in the Province of Ontario.
Removal of Concrete Foundation	The foundations will be broken up by heavy machinery and removed by dump truck to a depth of approximately 1.0m and filled with subsoil to rebuild the grade. Clean topsoil would be imported on-site by dump truck and replaced over the area of a soil type (loam, sandy loam) and to an approximate depth of adjacent horizontal topsoil depths. The areas will be left for cultivation or seeded for erosion control, depending on the preference of the landowner and timing during the calendar year.
	Concrete will be disposed of at a licensed landfill or recycling facility in the Province of Ontario.
Removal of Distribution Lines	The distribution lines and any underground conduit will be terminated and removed from the ground. Trenches and areas where conduit has been removed (including underground creek and railway crossings) will be backfilled with subsoil and other suitable substrates to rebuild the grade and stabilize the subsurface conditions for continued use for drainage and/or railway purposes. Clean topsoil would be replaced over the area of a soil type (loam, sandy loam) and to an approximate depth of adjacent horizontal topsoil depths.
	Conduit will be disposed of at a licensed landfill in the Province of Ontario, and distributions lines will be sold as scrap metal to a local

recycler.

3. SITE RESTORATION

3.1 Existing Conditions

All lands that will be occupied by project infrastructure are currently used for the growing of common field crops, in particular corn and soybeans. The activities outlined in Section 2 of this report will ensure that the project area is returned to its pre-construction state of cropped agricultural fields and field drainage.

3.2 Water Resources

There are no expected decommissioning activities required or related to water resources, as there are none present within those portions of the project boundary that require decommissioning activities, with the exception of stabilizing underground conduit areas beneath drains in two locations (see Map 5 – Project Description Report). No stormwater surface runoff prevention measures are required due to the distance from any water bodies. No open ditches or swales that would affect surface water movement will be encountered during decommissioning activities.

3.3 Soils

Soils on-site are characterized by a mixture of Normandale, St. Williams, Tavistock, and Maplewood soils which are characterized as loam / sandy loam, and are all considered Class 1 and 2 prime agricultural lands. All areas impacted by surface infrastructure will be replaced with similar loam / sandy loam soil types and to an approximate depth of 1.0 metre and all subsurface tile drains damaged during decommissioning will be repaired. The areas will be left for cultivation by the landowner if decommissioning occurs in the spring, or seeded for soil erosion control with cover crops during any other times during the calendar year. All of the subject lands are very flat. As such, reseeding with cover crops quickly is considered the most suitable method for controlling soil erosion.

3.4 Unexpected Spills

To address unexpected spills in the project area, the owners of the projects will complete a Phase I and II Environmental Assessment of the wind turbine lease areas, storage areas, switching stations and any removed roads when remediating the lands. This assessment would review all past records of spills that were recorded over the operations phase of the project. All spill locations would be tested to ensure there are no negative effects to surface soils or ground water.

4. EXCESS MATERIALS AND WASTE MANAGEMENT

All excess materials and waste will be transported off-site by flatbed trailer or dump truck. These materials and waste include:

- Generator, Tower, Electrical Appurtenances and Wiring sold for scrap value to a licensed scrap metal facility within the Province of Ontario;
- Blades disposed of at an appropriately licensed landfill facility within Ontario in accordance with Ontario Regulation 347 or its succeeding regulation. If financially and technically feasible at a future date, the blades may alternatively be recycled;
- Concrete and Aggregate send to recycling facility approved to receive construction building components within the Province of Ontario.

Any hazardous wastes that are used and/or stored on site such as used lubricating oils will be removed in accordance with Ontario Regulation 347 and disposed of at a registered facility in Ontario. All wastes will be transported by a registered hauler.

MANAGING IMPACTS OF DECOMMISSIONING

A key aspect of decommissioning will be on the minimization of environmental effects. The following table shows the environmental effects and mitigation plans of the decommissioning activities:

Type of Environmental Effect	Description
Residual Impacts	Disassembly will result in no residual impacts.
Aquatic Environment	There are no environmental effects expected from the decommissioning of the Kent Breeze wind farms because no materials from the site are expected to enter the water, since good construction practices will be adhered to (e.g. proper disposal of waste off-site).
Agricultural Impacts	Agricultural land use will be restored to existing conditions after equipment disturbances have been rehabilitated.
Terrestrial Vegetation	There will be minimal disturbance to plant communities in the area from decommissioning activities as trucks and construction equipment will be able to use existing roads from the operations phase of the development.
Terrestrial Wildlife (Including Birds)	Sensory disturbance of wildlife and birds for short term due to use of trucks and equipment for removal of the project components. There are minimal environmental effects expected from the decommissioning of the wind farm.

Noise Levels	Noise levels associated with decommissioning would be similar or less than those associated with construction. Therefore no significant adverse effects are expected beyond the approximate 3 month period of decommissioning.
Cultural Resources	There are no archeological or heritage effects that would result from the decommissioning of the wind farm.
Social	The decommissioning of the wind farm may create a temporary nuisance from a visual perspective. Since the nuisance effects would be very short term, minimal environmental effects would be expected.

EMERGENCY RESPONSE AND COMMUNICATIONS PLAN

The proposed *Emergency Response and Communications Plan* for the decommissioning phase of the projects will follow the same procedures outlined in the <u>Design and Operations Report</u>. In addition, the proposed notification procedure for any decommissioning activities outlined in this report will follow the same procedures outlined in the *Emergency Response and Communications Plan*.

OTHER APPROVALS

Based on consultation efforts to date, and uncertainty regarding the regulatory timeframe under which the project will be decommissioned, the only known approvals required for decommissioning the project at this current time would include demolition permits from the Municipality, and possible work permits issued by the conservation authorities. However, we are aware that the Province may require a *Record of Site Condition* under the <u>Environmental Protection Act</u>; may require financial assurance of the decommissioning activities proposed within this report; and may include conditions of approval to ensure that such activities proposed are implemented.

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