



# Kaizer Meadow Wind Project

## Environmental Assessment



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## **EXECUTIVE SUMMARY**

The Municipality of the District of Chester has proposed to place a 2.0 MW wind turbine at a site near Chester, Nova Scotia to generate power for the Kaizer Meadow Environmental Management Centre. The Kaizer Meadow Wind Project will be located approximately 20 km north of the Town of Chester, centered at 400661.59 E and 4953469.27 N (20T; NAD 83). The Project site consists of approximately 82.6 ha of clear cut and mixed wood forest owned by the Municipality of the District of Chester.

The province of Nova Scotia recently developed the Community Based Feed-In Tariffs program, an incentive-based program in which municipalities, First Nations, cooperatives, local non-profits, and small businesses, operating through Community Economic Development Investment Funds, are eligible to apply.

The Project is considered a Class 1 undertaking under the Nova Scotia Environmental Assessment Regulations and as such, requires a registered Environmental Assessment as identified under Schedule A of the Regulations. The Environmental Assessment and the registration document have been completed according to the methodologies and requirements outlined in the "Proponent's Guide to Wind Power Projects: Guide for Preparing an Environmental Assessment Registration Document", as well as accepted best practices for conducting environmental assessments.

Under the criteria listed in the Proponent's Guide, the Project has been designated as "Small" with a potential site sensitivity of "Very High", due to the confirmed presence of bird species with provincial rankings of "endangered" (red). Although the Project involves only one turbine, the site sensitivity determination categorizes this Project as a Category 4 project under the Guide.

A number of environmental components were evaluated for this assessment. Based on the data collected during the field studies and the associated research, reasonable mitigation strategies and best management practices were identified that lower the potential effects of the Project for the majority of the components. As such, avifauna and bats were identified as the only valued environmental components requiring an effects assessment, and subsequent cumulative effects assessment. These components were assessed together and only one residual effect was identified. It is expected that birds and bats will avoid the immediate area of the turbine but not the broader Project site, thereby reducing the number of possible turbine collisions. Fatalities however, due to turbine collisions, are not expected to be significant. Cumulative effects were also considered to be not significant.

Additionally, the Proponents have utilized best management techniques to optimize the size of the Project, focusing the development in an area of previous disturbance and committing to using previous access roads, where possible. In doing so, the Proponent has ensured higher valued ecosystems will remain outside the scope of the Project.

Overall, it was determined that the Project will have very low to no residual effects based on the activities surrounding the construction, operations and maintenance, and decommissioning of the Project.

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## **1.0 PROJECT INFORMATION**

This section of the environmental assessment (EA) report provides a summary of the Project, description of the proponents, and regulatory requirements. The structure of the overall document, as well as the investigators and authors involved, are also provided.

### **1.1 Project Overview**

The Municipality of the District of Chester intends to construct and operate a single 2 MW turbine near the Kaizer Meadow Environmental Management Centre, located approximately 20 km north of the Town of Chester, NS. The Kaizer Meadow Wind Project (the Project) is centered at 400661.59 E and 4953469.27 N (20T; NAD 83) and comprises approximately 82.6 ha of clear cut and mixed wood forest owned by the Municipality of the District of Chester. An existing meteorological tower exists at the proposed wind turbine location in the clear cut portion of the Project site. Adjacent lands are primarily undeveloped resource lands owned by Municipality of the District of Chester, the Nova Scotia Department of Natural Resources (NSDNR), and Atlantic Star Forestry Limited.

### **1.2 Regulatory Framework**

The Project is subject to a Class I EA as defined by the Environmental Assessment Regulations under the *Nova Scotia Environment Act (NSEA)*. As such, the proponents are required to register the Project with Nova Scotia Environment (NSE), and subsequently comply with the Class I registration process as defined by the Proponent's Guide to Environmental Assessment (NSE 2009).

A federal EA is required when one or more of the following triggers occur, as defined under the *Canadian Environmental Assessment Act (CEAA)*:

- A federal department or agency carries out a project;
- A federal department or agency provides financial assistance to enable a project to be carried out;
- A federal department or agency sells, leases, or transfers control of land to enable a project to be carried out; and/or
- A federal department or agency issues an authorization to enable a project to be carried out.

No federal triggers are expected to apply to the Project as all lands are owned by the Municipality and no federal funding or permitting is proposed to support the Project. A federal EA is therefore not anticipated.

Land use by-laws exist in the Municipality of the District of Chester; however, there are no provisions specific to wind power. The land use by-law for Chester requires a development agreement for "electric generating facilities with a production rating of more than 5 kilowatts (5,000 watts) which are not owned by the Municipality of Chester", which applies to the proposed Project (Municipality of the District of Chester 2012). Wind developments are permitted only in areas designated as the "General Basic Zone" and must undergo a provincial EA prior to the agreement taking place.



### 1.3 Structure of Document

Table 1.1 outlines the content of each section of this EA report.

**Table 1.1: EA Report Structure**

Section	Content
Section 1	Project information including an overview, regulatory framework and authors.
Section 2	Project description including purpose of the Project, activities and schedule.
Section 3	Scope and methodologies used during the EA process.
Section 4	Existing biophysical environmental conditions, potential impacts, and mitigation.
Section 5	Existing socio-economic and cultural conditions, potential impacts, and mitigation.
Section 6	Other considerations, including visual impacts and sound.
Section 7	Public, First Nation, and municipal consultation.
Section 8	Analysis of the effects of the Project on the environment.
Section 9	Effects of the environment on the Project.
Section 10	Analysis of cumulative effects.
Section 11	Follow up measures and future studies.
Section 12	Other approvals required.
Section 13	Concluding remarks.
Section 14	References.
Section 15	Appendices.

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