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# Fermeuse Wind Farm

## Noise Survey Report & Documentation

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Submitted to: Graeme Millen, CPA, CMA  
Director of Project Investments  
Elemental Energy  
2150-745 Thurlow St.  
Vancouver, BC V6E 0C5

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## 1. Overview

One Wind Services Inc. (One Wind) was procured by Elemental Energy Inc. (Elemental) to complete noise surveys with residents living in proximity to the Fermeuse Wind Farm (Project) located in Fermeuse, Newfoundland. Elemental is the sole owner of the Project. One Wind is under contract with Elemental Energy to provide Operations Management support for the Project as the company is based in Atlantic Canada.

The Project consists of nine (9) Vestas V90 3MW wind turbines, for a total installed capacity of 27MW. The Project commenced operations in January 2009 and has been successfully operating for nearly nine years

In November 2017, Elemental discussed the completion of a qualitative noise survey with representatives of the Newfoundland Department of Municipal Affairs and Environment, Environmental Assessment Division (NDMAE). NDMAE agreed that a survey of five of the nearest residents to the Project and a representative of the Town of Fermeuse would be an appropriate indication of resident experiences as they relate to noise emissions from the Project. The objective was to ensure that surveyed residents living in close proximity to the Project had no substantial concerns with noise emissions associated with the operation of the Project.

One Wind ultimately surveyed a total of six residents and the Deputy Mayor of the Town of Fermeuse. The following is a summary of the results of the survey. To protect the privacy of respondents, individual completed surveys are not included with this report however a template survey is included in Appendix A.

All resident surveys were completed by door to door visits by One Wind's Vice President of Newfoundland Operations, Phillip Hollett, P.Eng. The Town of Fermeuse was contacted via e-mail. This report was completed by One Wind's Canadian Operations Manager, Trent MacDonald.

## 2. Noise Survey

Qualitative noise surveys were completed in Fermeuse, NL in December 2017, to determine if noise produced by the operation of the Project is detrimentally affecting residents living in close proximity to the facility. The Town of Fermeuse was also required to participate in the survey. Please note that all documentation was completed on hard copy and was digitized for the purposes of this report. Individual surveys are not included for the purposes of resident privacy.

### 2.1. Town of Fermeuse

The Town of Fermeuse, represented by its Deputy Mayor, completed the noise survey documentation. As documented in the corresponding survey, the Deputy Mayor confirmed that the Town of Fermeuse has no concerns related to noise emissions from the Project. Verbally, the Town Clerk confirmed that the town has received no complaints or negative comments related to the Project.

### 2.2. Resident Information

Information from the six residents who responded to survey has been extracted from the sign off documentation and a summary of their information is provided in Table 1 below. The distance between the resident and Turbine 1 has also been included in the summary, with an aggregate map included in Appendix B.

**Table 1 – Summary of Resident Survey Results**

Resident #	Distance from Closest Turbine	Years at Residence	Response: “Whether the Project produces excessive noise”
1	950m	40	N
2	919m	20	N
3	892m	14	N
4	945m	26	N
5	941m	n/a	N
6	909m	29	N

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### **2.3. Resident Documentation**

One page surveys were completed by each resident listed, with all confirming they do not believe the Project emits excessive noise. For confidentiality purposes, no specific resident information is provided however a template of the survey is provided in Appendix A.

### **2.4. Resident Location**

The resident locations are shown in Appendix B and refers to each resident as broken down in Section 2.1. The map was completed on Google Earth and the houses have been outlined by pictures for ease of viewing.

The location of Turbines 1, 2 and 3 have all been labeled. Turbines 4 through 9 are greater than two kilometers west of Turbine 3 and do not have any significance in this study, i.e. no residential buildings near those turbines, therefore they have not been included in the mapping.

### **3. Summary of Findings**

After completion of noise surveys with the nearest residents to the Fermeuse Wind Farm, as well as the Town of Fermeuse, there are no concerns related to noise emissions associated with the operation of the Project. Overall, in-person discussions relating to the operations of the Project between the residents and Phil Hollett was very positive. This is consistent with discussions with representatives of the Town of Fermeuse who confirmed they have received no complaints or negative feedback relating to noise emissions or any other operational characteristic of the Project.

## Appendix A Survey Template



**FERMEUSE WIND PROJECT  
Noise Impact Survey**

<b>Participant Name</b>			
<b>Participant Type</b>	<input type="checkbox"/> Home Owner	<input type="checkbox"/> Local Government	<input type="checkbox"/> Business Owner
	<input type="checkbox"/> Other (Please Describe):		
<b>Address:</b>			
<b>Phone #:</b>			
<b>Email Address:</b>			
<b>If Landowner, # years residing at current location</b>			
<b>If Business Owner, # years at current location</b>			
<b>Based on your personal experience, does the Fermeuse Wind Farm produce excessive noise at your place of residence or business to a degree that causes you substantial duress, discomfort, or inconvenience?</b>	YES / NO		
<b>If your replied yes to the above, please provide additional detail:</b>			

By signing below, I, \_\_\_\_\_, confirm that I have no complaints, issues, concerns, or disputes associated with noise emitted by the Fermeuse Wind Farm.

By: \_\_\_\_\_

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Questions?**  
 Graeme Millen, Director of Project Investments  
 T: 604 762 5849 E: gmillen@elementalenergy.ca

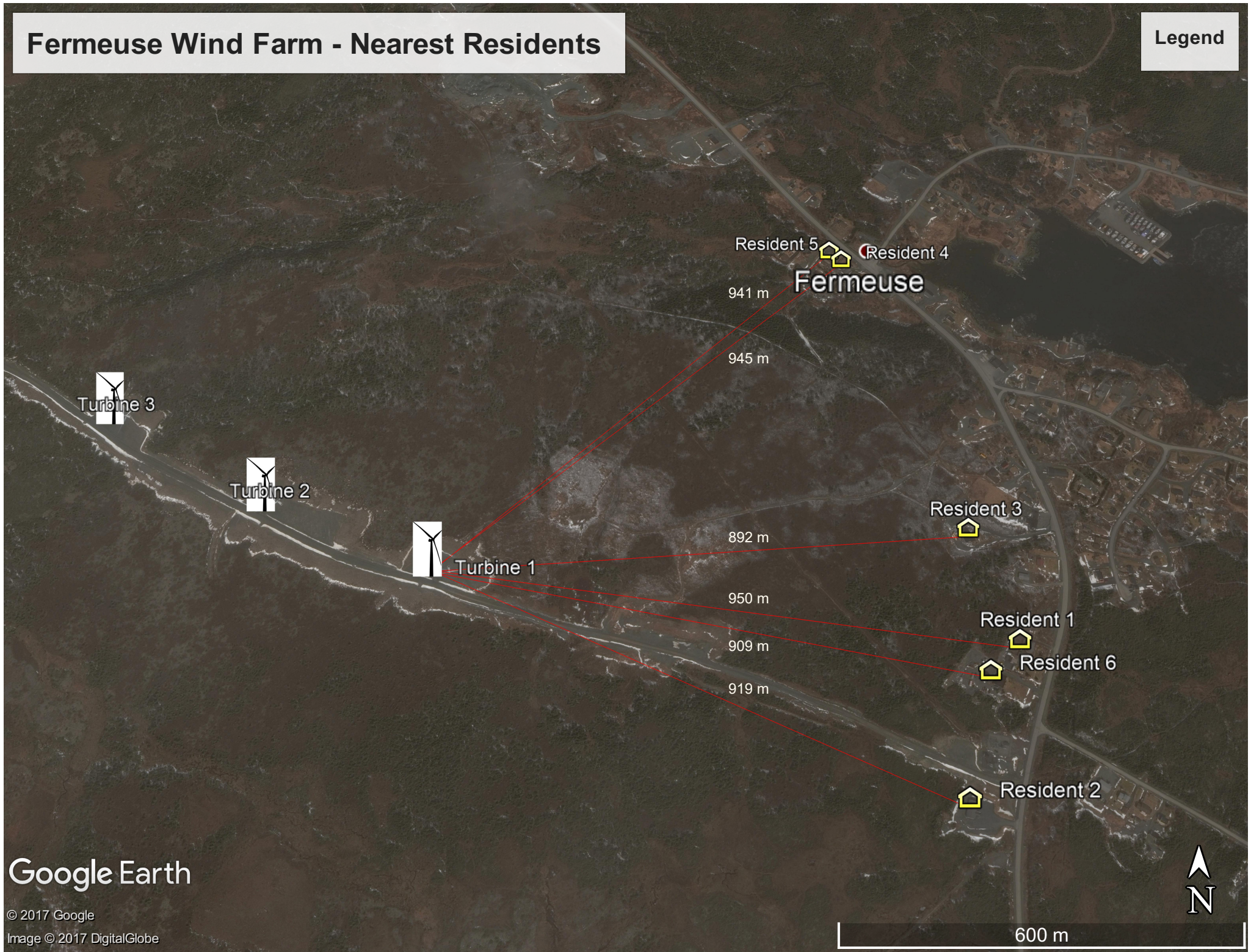


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## Appendix B Mapping of Residents to Turbine 1

# Fermeuse Wind Farm - Nearest Residents

Legend



Google Earth

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600 m

