

Appendix M

Obtained Permits

NAV CANADA's Land Use Evaluation

Transport Canada's Obstruction Evaluation



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October 31, 2017

Your file
Sussex East
Our file
17-0694

Mr. Chris Veinot
Natural Forces Wind Inc.
1801 Hollis Street, Suite 1205
Halifax, NS
B3J 3N4

RE: Wind Farm: 5 Wind Turbines - Sussex, NB
(See attached spreadsheet)

Mr. Veinot,

NAV CANADA has evaluated the captioned proposal and has no objection to the project as submitted.

The nature and magnitude of electronic interference to NAV CANADA ground-based navigation aids, including RADAR, due to wind turbines depends on the location, configuration, number, and size of turbines; all turbines must be considered together for analysis. The interference of wind turbines to certain navigation aids is cumulative and while initial turbines may be approved, continued development may not always be possible.

In the interest of aviation safety, it is incumbent on NAV CANADA to maintain up-to-date aeronautical publications and issue NOTAM as required. To assist us in that end, we ask that you notify us at least 10 business days prior to the start of construction. This notification requirement can be satisfactorily met by returning a completed, signed copy of the attached form by e-mail at landuse@navcanada.ca or fax at 613-248-4094. In the event that you should decide not to proceed with this project or if the structure is dismantled, please advise us accordingly so that we may formally close the file.

If you have any questions, contact the Land Use Department by telephone at 1-866-577-0247 or e-mail at landuse@navcanada.ca.

NAV CANADA's land use evaluation is valid for a period of 12 months. Our assessment is limited to the impact of the proposed physical structure on the air navigation system and installations; it neither constitutes nor replaces any approvals or permits required by Transport Canada, Industry Canada, other Federal Government departments, Provincial or Municipal land use authorities or any other agency from which approval is required. Industry Canada addresses any spectrum management issues that may arise from your proposal and consults with NAV CANADA engineering as deemed necessary.

Yours truly,

A handwritten signature in blue ink, appearing to read "G. Adamache".

Gheorghe Adamache | NAV CANADA
Manager - AIM IFP Service Delivery

cc ATLR - Atlantic Region, Transport Canada



Transport Canada number 2017-066
Applicant number

AERONAUTICAL ASSESSMENT FORM FOR OBSTRUCTION EVALUATION

SECTION 1

Owner's Name Natural Forces Wind Inc.		Contact Person Chris Veinot	
Address 1205 - 1801 Hollis Street			
City Halifax		Province NS	Postal Code B3J 3N4
Telephone number (999-999-9999) (902) 981-8900	Fax number (999-999-9999)	Email Address cveinot@naturalforces.ca	

SECTION 2

Applicant's Name Natural Forces Wind Inc		Contact Person Chris Veinot	
Address 1205 - 1801 Hollis Street			
City Halifax		Province NS	Postal Code B3J 3N4
Telephone number (999-999-9999) (902) 981-8900	Fax number (999-999-9999)	Email Address cveinot@naturalforces.ca	

SECTION 3

Description of Proposal (or as attached) Five large scale wind turbines with 135m hub height and 141m rotor diameter. Materials are concrete plus steel tower and fiberglass blades.
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SECTION 4

Geographic Coordinates <input checked="" type="checkbox"/> NAD83 <input type="checkbox"/> NAD27 <input type="checkbox"/> WGS84	N Latitude deg <u>45</u> min <u>47</u> sec <u>49.75</u>
For multiple structures in a grouping, submit geographical coordinates on a separate spreadsheet (e.g. windfarms, transmission lines)	W Latitude deg <u>65</u> min <u>15</u> sec <u>16.35</u>

SECTION 5

Nearest Community Springdale	Province NB
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SECTION 6

Nearest Aerodrome Sussex

SECTION 7

Have you contacted the aerodrome? <input type="radio"/> Yes <input checked="" type="radio"/> No
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SECTION 8

Notice of <input checked="" type="radio"/> New Construction <input type="radio"/> Change to existing structure

SECTION 9

Duration <input type="radio"/> Permanent <input checked="" type="radio"/> Temporary
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SECTION 10

Proposed Construction Date Beginning (yyyy-mm-dd)
2018-05-17

SECTION 11

Temporary Structure
From date (yyyy-mm-dd) 2018-05-17 To date (yyyy-mm-dd) 2048-05-17

SECTION 12

Marking and Lighting Proposed (refer to Standard 621)

<input type="checkbox"/> Red lights and paint	<input checked="" type="checkbox"/> Red and M.I. white lights	<input type="checkbox"/> White M.I. lights
<input type="checkbox"/> Red and H.I. white lights	<input type="checkbox"/> White H.I. lights	<input type="checkbox"/> No painting
<input type="checkbox"/> No lighting	<input type="checkbox"/> Paint marking only	<input type="checkbox"/> Other (provide description)

SECTION 13

Monitoring to Standard 621, article 4.7 Visual Inspection Remote indicator

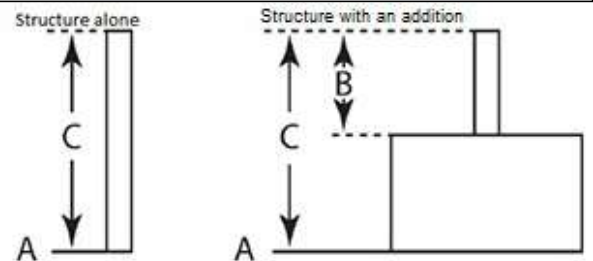
SECTION 14

Catenary/Cable Crossing

<input type="checkbox"/> Paint supporting structures	<input type="checkbox"/> Cable marker spheres	<input type="checkbox"/> Shore markers
<input type="checkbox"/> Support structure lighting	<input type="checkbox"/> Cable marker lights	

SECTION 15

	Feet	Metres
A Ground Elevation (AMSL)		270
B Height of an addition to a structure		
C Total structure height including B (AGL)		200
Overall height (A plus C) (AMSL)		470



SECTION 16

Does the proposal comply with **Airport Zoning Regulations**?
 Yes No N/A
 Where the location of the object is on lands affected by **Airport Zoning Regulations**, a legal survey is required with the submittal.

I hereby certify that all the above statements made by me are true, complete and correct to the best of my knowledge. Also, I agree to mark and/or light and maintain the structure with established marking and lighting standards as necessary.

Chris veinot

Name of person filing notice

Chris veinot

Signature

2017-02-27

Date (yyyy-mm-dd)

TRANSPORT CANADA ASSESSMENT

Marking and lighting required (as per Standard 621)

<input checked="" type="checkbox"/> Lighting Required	<input checked="" type="checkbox"/> Marking Required	<input checked="" type="checkbox"/> Temporary Lighting Required	<input type="checkbox"/> No Lighting or marking required
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Comments (Transport Canada use Only)

Marking and lighting required as per Standard 621. Also temporary lighting will be required once the structure reaches 60 meters in height.

Completion of this form does not constitute authorization for construction nor replace other approvals or permits. See instruction D and E.

Civil Aviation Inspector Christian Allain	Signature	Date (yyyy-mm-dd) 2017-06-05
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Note 1: This assessment expires 18 months from the date of assessment unless extended, revised, or terminated by the issuing office.

Note 2: If there is a change to the intended installation, a new submittal is required.

USE AND INSTRUCTIONS FOR COMPLETING FORM

- A. Purpose of Form: The purpose of this form is to assess the need and application of marking and lighting for objects that may pose a hazard to aviation and to determine conformance to ***Airport Zoning Regulations***.
- B. When to Complete the Form: Completed forms, electronic or paper, are submitted at least 90 days prior to all alterations which increase the structure's height; or for proposed new structures if:
- (i) of such a height as to penetrate an airport obstacle limitation surface specified in the *Aerodrome Standards and Recommended Practices Manual – TP312*;
 - (ii) within 6 km of the centre of an aerodrome;
 - (iii) higher than 90 m AGL within 3.7 km of the centreline of a recognized VFR route such as, but not limited to, a valley, a railroad, a transmission line, a pipeline, a river or a highway;
 - (iv) higher than 150 m AGL at any other location; or
 - (v) a component of a catenary wire crossing where any portion of the wires or supporting structures exceed 90 m AGL;
- C. Supporting Data and Documents
- (i) a 1:50,000 scale map, or the most detailed map available showing ground contour elevations to allow determination of the structure's latitude and longitude.
 - (ii) sketches, plans or blueprints for structures other than radio or TV antennae.
- D. This form does not constitute authority for construction.
- E. This form neither constitutes nor replaces any approvals, permits or assessments required by NAV CANADA, Industry Canada, other Federal Government departments, Provincial or Municipal land use authorities or any other agency from which approval/assessment is required.
- F. Completed applications are to be forwarded to the applicable Transport Regional office listed in Appendix A.
- G. A separate application is to be submitted to NAV CANADA. For a detailed description on NAV CANADA's requirements and additional information, refer to the NAV CANADA Land Use Proposal website at www.navcanada.ca
- H. If the proposed construction does not take place, notification is sent to Transport Canada.

Abbreviations

AMSL	Above Mean Sea Level
AGL	Above Ground Level
M.I.	Medium Intensity
H.I.	High Intensity
VFR	Visual Flight Rule

USE AND INSTRUCTIONS FOR COMPLETING FORM (continued)

Section 1 – The Owner of the structure who is responsible for installation of marking and lighting. Include name, address and phone number of a personal contact point as well as the company name.

Section 2 – The Owner's representative who is making application, if other than Section 1 Include name, address and phone number of a personal contact point as well as the company name.

Section 3 – Provide a narrative description of the proposal

- (a) – MANDATORY - Indicate the type of structure. (e.g. antenna, crane, building, power line, landfill, water tank, wind farm, moored balloon, kite, catenary/cable crossing, etc.)
- (b) – For overhead wires or transmission lines, include size and configuration of wires and their supporting structures (Attach depiction).
- (c) – For each pole/support, include coordinates, site elevation, and structure height above ground level or water. For buildings, include site orientation, coordinates of each corner, dimensions, and construction materials. For alterations, explain the alteration thoroughly.
- (d) – For a proposed wind farm, include a spreadsheet with Turbine ID, geographic coordinates (in minutes, degrees and seconds), height above ground, and ground elevation.
- (e) – For existing structures, thoroughly explain the reason for notifying Transport Canada (e.g. corrections, no record on file with Transport Canada or previous study, etc.).
- (f) – For Catenary crossings, the geographic coordinates for all pertinent support structures are provided along with heights AMSL and AGL including the height of wires above ground or water level.
- (g) – If available, attach a copy of a documented site survey with the surveyor's certification stating the amount of vertical and horizontal accuracy in feet.
- (h) - Description of surrounding environment and structures. Provide photographs of the area of intended installation.

Section 4 – Latitude and longitude must be geographic coordinates, to within the nearest second or to the nearest hundredth of a second if known. For accuracy of the measurement refer to the International Civil Aviation Organization (ICAO) Annex 15 *Aeronautical Information Services*. For multiple structures in a grouping, submit geographical coordinates on a separate spreadsheet (e.g. windfarms, transmission lines)

Section 5 – Enter the name of the nearest community, city or town to the site. If the structure is or will be in a community, enter the name of that community.

Section 6 – Enter the name of the nearest aerodrome.

Section 7 – It is recommended that the nearest aerodrome be contacted to resolve any difficulties that the installation may pose to aerodrome operations.

Section 8 – (a) – New Construction would be a structure that has not yet been built.

- (b) – Alteration is a change to an existing structure such as the addition of a top mounted antenna, a change to the marking and lighting, a change to power and/or frequency, or a change to the height. The nature of the alteration is included in Section 3 "Description of Proposal".
- (c) – Existing would be a correction to the latitude and/or longitude, a correction to the height, or if filing on an existing structure which has not been assessed. The reason for the notice is included in Section 3 "Description of Proposal".

Section 9 – A temporary structure would be such as a crane or drilling derrick.

Section 10 – Enter the date for the start of construction.

Section 11 – Enter the time period during which the temporary structure will be in place.

Section 12 – Refer to Standard 621 for requirements of marking and various lighting systems.

Section 13 – Indicate the means that will be used to monitor the status of the lighting and identify the occurrence of a failure.

Section 14 – Indicate the form of marking and lighting that is proposed for the catenary crossing.

Section 15 – **A** – Enter the ground elevation AMSL expressed in metres and feet. This data should match the ground contour elevations for site depiction submitted under Section 3.

B – Enter the height of the object if it is an addition to an existing structure. The height will determine the need for lighting of this object and may affect the heights of intermediate levels of lighting on the structure.

C – Enter the total structure height AGL in metres and feet. The total structure height includes anything mounted on top of the structure, such as antennae, obstruction lights, lightning rods, etc, in addition to the structure itself.

Enter the overall height AMSL. This will be the total of **A** plus **C**.

Section 16 – The survey done by a licensed surveyor attests the conformance of the object height to airport zoning surfaces for the given location.