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From:	Ferris, Kevin (HC/SC) on behalf of IA-ATL / EI-ATL (HC/SC)
To:	Maher, Kelly
Cc:	Allain, Jérémie (HC/SC)
Subject:	RE: WINDY RIIDGE WIND POWER PROJECT - Environmental Assessment Registration - Comments due July 5, 2024
Date:	May 30, 2024 2:23:08 PM
Attachments:	image001.jpg
	Human Health Considerations in IA.pdf
	Generic noise advice for wind farm projects EN.pdf

#### \*\* EXTERNAL EMAIL / COURRIEL EXTERNE \*\*

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#### Hello Kelly,

As per your email below regarding WINDY RIIDGE WIND POWER PROJECT, please identify any project-related human health impacts to which you require advice and guidance from Health Canada.

HC's role in Impact/Environmental Assessment is founded in statutory obligations under the Canadian Impact Assessment Act, and its knowledge and expertise can be called upon by reviewing bodies (e.g., Impact Assessment Agency of Canada, review panels, Indigenous groups and/or other jurisdictions). In the absence of such a request from one of the above noted groups, HC is unable to carry out a comprehensive review of the project. **However, HC is able to accommodate specific requests for human health advice and guidance related to provincial environmental assessments within a reasonable timeframe.** 

Health Canada currently possesses expertise in the following areas related to human health: air quality, recreational and drinking water quality, traditional foods (country foods), noise, and methodological expertise in conducting human health risk assessment.

To help with your review of human health impacts, I have attached two documents, one about generic noise advice with respect to wind farm projects and one about common human health considerations in project reviews and links to Health Canada's guidance documents.

Kind regards,

#### **Kevin Ferris**

Regulatory Operations and Enforcement Branch Health Canada / Government of Canada kevin.ferris@hc-sc.gc.ca

Direction générale des opérations réglementaires et de l'application de la loi Santé Canada / Gouvernement du Canada kevin.ferris@hc-sc.gc.ca

#### From: Maher, Kelly <Kelly.Maher@novascotia.ca>

#### Sent: Thursday, May 30, 2024 10:25 AM

To: Eyitayo-Oyesode, Oladiwura < Oladiwura. Eyitayo-Oyesode@novascotia.ca>; Alward, Emily. < Emily. Alward@novascotia.ca>; Mitchell, David A < David. Mitchell@novascotia.ca>; Mosher. Elaine <Elaine.Mosher@novascotia.ca>: Hurlburt. Donna D <Donna.Hurlburt@novascotia.ca>: Wildlife EA <Wildlife EA@novascotia.ca>: Crewe, Tara <Tara.Crewe@novascotia.ca>: White.Shannon C <Shannon.White@novascotia.ca>: White.Shannon C <Shannon.White@novascotia.ca>: Drake. Carrie L <Carrie.Drake@novascotia.ca>; Mahoney, Meagan < Meagan.Mahoney@novascotia.ca>; Blackburn, Lori M < Lori.Blackburn@novascotia.ca>; Boudreau, Susan M <Susan.Boudreau@novascotia.ca>; Steele, Cynthia <Cynthia.Steele@novascotia.ca>; McPherson, Robyn.AcPherson@novascotia.ca>; MacPherson, George E <George.MacPherson@novascotia.ca>; Hearn, Scott <Scott.Hearn@novascotia.ca>; Webber, Diane E <Diane.Webber@novascotia.ca>; Balch, Toby <Toby.Balch@novascotia.ca>; Wickson, Mark Rebecca M <Rebecca.MacQuarrie@novascotia.ca>; Cormier, John <John.Cormier@novascotia.ca>; Lewis, Beth J <Beth.Lewis@novascotia.ca>; Hernould, Alexandra S <Alexandra.Hernould@novascotia.ca>; DesRoche, Gillian <Gillian.DesRoche@novascotia.ca>; Poirier, Colin <Colin.Poirier@novascotia.ca>; Rideout, Bill E <Bill.Rideout@novascotia.ca>; Lahey, Rodney <Rodney.Lahey@novascotia.ca>; Ferguson, Stephen G <Stephen.Ferguson@novascotia.ca>; Weatherby, Anthony < Anthony.Weatherby@novascotia.ca>; Ramen, Satya < Satya.Ramen@novascotia.ca>; Farrell, Tanya M < Tanya.Farrell@novascotia.ca>; MacKenzie, Tanya L <Tanva.MacKenzie@novascotia.ca>: MacDonald, Jeffrev Malcolm <Jeffrev.MacDonald3@novascotia.ca>: MacDonald.Mark <Mark.MacDonald@novascotia.ca>: Donaldson, Samuel <Samuel.Donaldson@novascotia.ca>; Lovitt, Christina <Christina.Lovitt@novascotia.ca>; Zanth, Kathy M <Kathy.Zanth@novascotia.ca>; projects-projets@iaac-aeic.gc.ca; jeff.reader@dfo-mpo.gc.ca; beverly.ramos-casey@canada.ca; IA-ATL / EI-ATL (HC/SC) <ia-atl-ei-atl@hc-sc.gc.ca>; fcr\_tracker@ec.gc.ca; ReferralsMaritimes@dfo-mpo.gc.ca; dfo.fppmar-pppmar.mpo@dfo-mpo.gc.ca; Allen Scott, Olivia <Olivia.AllenScott@novascotia.ca>; Allen, Mike E <Mike.Allen@novascotia.ca>; Baker, Corinne C <Corinne.Baker@novascotia.ca>; Barnett, Codey <Codey.Barnett@novascotia.ca>; Baxter, Brent K <Brent.Baxter@novascotia.ca>; Bedard, Jeremy.Bedard@novascotia.ca>; Bermarija, Tessa < Tessa.Bermarija@novascotia.ca>; Bocking, Emma < Emma.Bocking@novascotia.ca>; Borgal, Tanya < Tanya.Borgal@novascotia.ca>; Bradbury, Catlin Joseph <Catlin.Bradbury@novascotia.ca>; Brophy, Michael < Michael.Brophy@novascotia.ca>; Brufatto, Matthew.Brufatto@novascotia.ca>; Check, Gordon G <Gordon.Check@novascotia.ca>; Cox, Brent X <Brent.Cox@novascotia.ca>; Crouse, Lee Ann G <LeeAnn.Crouse@novascotia.ca>; Crowell, Lynsey J <Lynsey.Crowell@novascotia.ca>; Cummings, Gregory < Gregory.Cummings@novascotia.ca>; Currie, Paul D < Paul.Currie@novascotia.ca>; Cuthbert, Robert W < Robert.Cuthbert@novascotia.ca>; Darling, Heidi <Heidi.Darling@novascotia.ca>; Deacoff, Cameron J <Cameron.Deacoff@novascotia.ca>; deGooyer, Kermit G <Kermit.deGooyer@novascotia.ca>; Dulmage, Marina Lorna <Marina.Dulmage@novascotia.ca>; Ferguson, Stephen G <Stephen.Ferguson@novascotia.ca>; Fettes, Will <Will.Fettes@novascotia.ca>; Firth, Ross <Ross.Firth@novascotia.ca>; Fraser, Carrie < Carrie.Fraser@novascotia.ca>; Furey, Stefan M < Stefan.Furey@novascotia.ca>; Gallop, John < John.Gallop@novascotia.ca>; Gammie, Janice S anice.Gammie@novascotia.ca>; Greenwood, Mark <Mark.Greenwood@novascotia.ca>; Hartley, Sandra M <Sandra.Hartley@novascotia.ca>; Hines, Samantha E <Samantha.Hines@novascotia.ca>; Horne, Danielle <Danielle.Horne@novascotia.ca>; Horne, Peter <Peter.Horne@novascotia.ca>; Jeyakumar, Lordwin <Lordwin.Jevakumar@novascotia.ca>: Kav. Jonathan A < Jonathan.Kav@novascotia.ca>: Kennev. Robert M < Robert.Kennev@novascotia.ca>: Lahev. Rodnev <Rodney.Lahey@novascotia.ca>; LaPaix, Richard <Richard.LaPaix@novascotia.ca>; Lee, Ken A <Ken.Lee@novascotia.ca>; Locke, Sonya <Sonya.Locke@novascotia.ca>; Loran, Lee <Lee.Loran@novascotia.ca>; Maass, Oliver C <Oliver.Maass@novascotia.ca>; MacDougall, Stephanie G <Stephanie.MacDougall@novascotia.ca>; MacKinnon, David S <David.MacKinnon2@novascotia.ca>; MacKinnon, Janet <Janet.MacKinnon@novascotia.ca>; MacNeill, Dawn K <Dawn.MacNeill@novascotia.ca>; MacQueen, Donald G <Donald.MacQueen@novascotia.ca>; Mansfield, Helen A <Helen.Mansfield@novascotia.ca>; McDonald, Jennifer D <Jennifer.McDonald@novascotia.ca>; McInnis, Mark <Mark McInnis@novascotia.ca>: McKnight. Adam <Adam McKnight@novascotia.ca>: McNamara. Connor <Connor McNamara@novascotia.ca>: Montreuil. Krysta R <Krysta.Montreuil@novascotia.ca>; Morehouse, Neil S <Neil.Morehouse@novascotia.ca>; Morgan, Alice <Alice.Morgan@novascotia.ca>; Mosher, Christina <Christina.Mosher@novascotia.ca>; Murphy, Andrew (ENV) <Andrew.J.Murphy@novascotia.ca>; Murphy, Matthew M <Matthew.Murphy@novascotia.ca>; Poirier, Colin <Colin.Poirier@novascotia.ca>; Polegato, Angelina R <Angelina.Polegato@novascotia.ca>; Rahman, Mohammad <Mohammad.Rahman@novascotia.ca>; Rideout, Bill E <Bill.Rideout@novascotia.ca>: Robinson, Clare <Clare.Robinson@novascotia.ca>: Sangster, Charles W <Charles.Sangster@novascotia.ca>: Sanoica, Arvn < Aryn.Sanojca@novascotia.ca>; TCFCRMAR@tc.gc.ca; landuse@navcanada.ca; windturbines@forces.gc.ca; Scanlan, Riley < Riley.Scanlan@novascotia.ca>; Seaboyer, Matt P Adatt.Seaboyer@novascotia.ca>; Smith, Christopher Christopher.Smith@novascotia.ca>; Smith, Craig Craig.Smith2@novascotia.ca>; Smith, Helen Helen.Smith@novascotia.ca>; Steele, Sally D <Sally.Steele@novascotia.ca>; Tattrie, Alan M <Alan.Tattrie@novascotia.ca>; Tufts, Denis P <Denis.Tufts@novascotia.ca>; Wells, Christina

<Christina.Wells@novascotia.ca>; Williams, Charles S <Charles.Williams@novascotia.ca>; Xie, Jun <Jun.Xie@novascotia.ca>; Yap, Simon <Simon.Yap@novascotia.ca> Cc: Tutty, Bridget R <Bridget.Tutty@novascotia.ca>

Subject: WINDY RIIDGE WIND POWER PROJECT - Environmental Assessment Registration - Comments due July 5, 2024

Warning: This message is from an EXTERNAL SENDER - be CAUTIOUS, particularly with links and attachments. Attention: Ce message provient d'un EXPÉDITEUR EXTERNE - soyez PRUDENT, en particulier avec les liens et les pièces jointes.

#### WINDY RIDGE WIND POWER PROJECT - ENVIRONMENTAL ASSESSMENT - PUBLIC COMMENTS DUE JULY 5, 2024

Good Afternoon,

This is to advise that on June 5, 2024, Windy Ridge Wind 4560536 Nova Scotia Limited (Windy Ridge Wind) will register the WINDY RIDGE WIND POWER PROJECT for environmental assessment, in accordance with Part IV of the Environment Act.

#### **Project Description:**

The proposed Project will involve construction and operation of a 49 turbine, 340 MW wind project. The wind turbines will be 199.5 m tall to the tip of the blade and individually produce up to 7.0 MW. The Project is situated on the ancestral and unceded territory of the Mi'kmaq people, in the Cobequid Hills region of Nova Scotia, approximately 6 km northwest of Debert. The project will also include a transmission line, electrical collector lines and substation, access roads, and temporary laydown areas. The proponent intends to begin construction of the Project in 2024 and it is expected to be operational for 35 years commencing in 2025.

#### **Deadlines:**

Please note that all comments must be provided by June 25, 2024, to be considered in this environmental assessment. We understand this a slight change from the usual 30day comment period. It is necessary to ensure adequate time to support analysis and decision-making processes under the legislative timeframe. Reviewers will still have at least 25 days to consider the document and we are hopeful that our efforts over the past year to streamline and standardize review process will help with an efficient review. Please provide comments via email if possible. If there are no comments, please also reply indicating so.

On or before July 25, 2024, the Minister of Environment and Climate Change will decide if the project can be granted conditional environmental assessment approval. On the decision day, all submissions received will be posted on the Department's website for public viewing.

#### Accessing EA Documents and data:

You should receive an email from CBCL with a link to their SharePoint site for Windy Ridge Wind EA documents. If you have not received an email granting you permission by the end of today (May 30), please contact me as soon as possible.

Note the folder labelled "Confidential" contains GIS data regarding project location and environmental feature shapefile data can also be downloaded from the above-mentioned site. The GIS data must not be distributed outside of the government and should be used only for this review.

On June 5, 2024, the Registration Documents (except the GIS data) will also be available on our website at <a href="http://www.novascotia.ca/nse/ea/">http://www.novascotia.ca/nse/ea/</a>. If you have any problems accessing the EA documents, then please do not hesitate to contact me.

#### **Response Template:**

Ensuring a clear, consistent, and predictable review of EA projects is key to clarifying and streamlining the EA process. We have developed a template and guidance to support you, in your role as reviewer, to help achieve this goal. This template requests sign off by Managers/Directors (for provincial departments) prior to submission of final comments to the EA Branch. Therefore, please consider the attached 3 documents to provide your comments:

- 1. EA Reviewer Template (this is a suggested format for comments, not required). please ensure the date on the comment is the day you send them to the Environmental Assessment Officer
- 2. EA Reviewer Guidance (this should not be included as part of your comments back to the EA Branch)
- Generic EA Mitigations Wind
- All submissions received will be posted on the Department's website for public viewing.

If you have any questions, please do not hesitate to contact me.

#### Kind Regards, Kelly Maher



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#### Human Health Considerations in Impact Assessment

Health Canada (HC) provides the following generic considerations for evaluating human health impacts in environmental/impact assessment (EA/IA). Please note that this is not an exhaustive list of human health concerns that may result from projects, and that issues will vary based on project specifics. Please also note that HC does not approve or issue licenses, permits, or authorizations in relation to the IA. HC's role in Impact Assessment is founded in statutory obligations under the Canadian Impact Assessment Act, and its knowledge and expertise can be called upon by reviewing bodies (e.g., Impact Assessment Agency of Canada, review panels, Indigenous groups and/or other jurisdictions). In the absence of such a request from one of the above noted groups, HC is unable to carry out a comprehensive review of the project. However, HC is able to accommodate specific requests for human health advice and guidance related to provincial environmental assessments within a reasonable timeframe.

HC currently possesses expertise in the following areas related to human health: air quality, recreational and drinking water quality, traditional foods (country foods), noise, and methodological expertise in conducting human health risk assessment. Based on Health Canada's "*Guidance for Evaluating Human Health Impacts in Environmental Assessment*", please consider the following information on these topics to assist in your review.

	Consideration	Reference Document
Receptor Location(s)		
Please ensure the registration document clearly identifies the locations of all receptors that may be impacted by the proposed project, including any receptors located along the transportation route, if applicable.	• It is important to clearly describe the location and distance from the proposed site(s) to all potential human receptors (permanent, seasonal or temporary), taking into consideration the different types of land uses (e.g. residential, recreational, industrial, etc.), and identifying all vulnerable populations (e.g. in schools, hospitals, retirement or assisted living communities). Note that the types of residents and visitors in a particular area will depend on land use, and may include members of the general public and/or members of specific population subgroups (Indigenous peoples, campers, hunters, etc.)	Health Canada. 2023. Guidance for Evaluating Human Health Effects in Impact Assessment: Human Health Risk Assessment. Healthy Environments and Consumer Safety Branch, Health Canada, Ottawa, Ontario. <u>https://publications.gc.ca/collections/coll</u> <u>ection 2024/sc-hc/H129-54-6-2023- eng.pdf</u>
	• If there is the potential that project-related activities could affect human receptors, impacts to human health should be considered.	

Atmospheric Environment		
Project impacts to the atmospheric environment include changes to air quality and noise, and can occur in both the construction, operation and decommissioning phases of the project. Project impacts to air quality are commonly caused by emissions from equipment or vehicles as well as by dust. Noise impacts are commonly caused by equipment as well as by activities such as blasting.	<ul> <li>If there are receptors that could be affected by project-related activities, impacts to the atmospheric environment should be considered. Changes to the atmospheric environment that may impact human health include: <ul> <li>impacts to air quality (dust or fumes including PM<sub>2.5</sub>, NO<sub>x</sub>, SO<sub>x</sub>, PAHs)</li> <li>increased noise from construction or operations</li> </ul> </li> <li>If there are receptors who could be impacted by project-related noise, it may be necessary to inform receptors prior to loud activities, such as blasting.</li> <li>If there is the potential for impacts to human receptors from noise and/or air quality changes from the project, the proponent should consider establishing mitigation measures. If complaints are received additional mitigation measures may be required.</li> </ul>	Health Canada. 2023. Guidance for Evaluating Human Health Impacts in Impact Assessment: Noise. Healthy Environments and Consumer Safety Branch, Health Canada, Ottawa, Ontario https://publications.gc.ca/collect ions/collection_2024/sc- hc/H129-54-3-2023-eng.pdfHealth Canada. 2023. Guidance for Evaluating Human Health Effects in Impact Assessment: Air Quality. Healthy Environments and Consumer Safety Branch, Health Canada, Ottawa, Ontario.https://publications.gc.ca/collect ions/collection_2024/sc- hc/H129-54-3-2023-eng.pdf
<b>Recreational and Drinking Wate</b>		
The proponent should consider whether any nearby waterbodies are used for recreational (i.e. swimming, boating, or fishing) or drinking water purposes, as well as whether there are any drinking water wells in the area potentially impacted by the project. Nearby drinking and/or recreational water quality may be impacted by	• If there is the potential for impacts to drinking and/or recreational water quality from the project site, the proponent should consider establishing mitigation measures. If complaints are received additional mitigation measures may be required.	Health Canada. 2023. Guidance for Evaluating Human Health Effects in Impact Assessment: Drinking and Recreational Water Quality. Healthy Environments and Consumer Safety Branch, Health Canada, Ottawa, Ontario. <u>https://publications.gc.ca/collect</u> <u>ions/collection_2024/sc-</u> hc/H129-54-2-2023-eng.pdf

accidents or malfunctions, such as a fuel spill; by dust and increased sediment runoff; and by other chemical discharges to the environment. Additionally, wells in the area potentially impacted by the project may be impacted by activities such as blasting.	<ul> <li>The proponent should consider preparing a response plan in the event of an accident or malfunction with the potential to impact drinking and/or recreational water quality. Response plans should include a spill response kit, adequate spill response training, and a communication plan to notify all recreational and drinking water users in the impacted area as well as all relevant authorities.</li> <li>In some cases, for projects that are likely to have an impact on drinking and/or recreational water quality, the proponent should consider conducting water monitoring prior to the start of the project (to establish a baseline). Monitoring would continue throughout the construction, operation and decommissioning phases of the project (as applicable) to monitor for any changes in water quality or quantity.</li> </ul>	
<b>Country Foods</b> If there are plants or animals present in the area potentially impacted by the project that are consumed by humans, there may be potential for impacts to country foods. The proponent should consider all country foods that are hunted, harvested or fished from the area potentially impacted by the project. Impacts to country foods may occur from the release of contaminants into soil or water (including from an accident or spill) or from deposition of air borne contaminants.	<ul> <li>If there is the potential for impacts to country foods from the proposed project, the proponent should consider establishing mitigation measures. If complaints are received additional mitigation measures may be required.</li> <li>The proponent should consider preparing a response plan in the event of an accident or malfunction with the potential to impact country foods. Response plans should include a spill response kit, adequate spill response training, and a communication plan to notify all potential consumers of country foods in the impacted area as well as all relevant authorities.</li> </ul>	Health Canada. 2023. Guidance for Evaluating Human Health Effects in Impact Assessment: Country Foods. Healthy Environments and Consumer Safety Branch, Health Canada, Ottawa, Ontario. https://publications.gc.ca/collec tions/collection_2024/sc- hc/H129-54-5-2023-eng.pdf

For more information on HC's guidelines for evaluating human health impacts in environmental assessments, please see:

Health Canada. 2023. Guidance for Evaluating Human Health Impacts in Impact Assessment: Noise. Healthy Environments and Consumer Safety Branch, Health Canada, Ottawa, Ontario <a href="https://publications.gc.ca/collections/collection\_2024/sc-hc/H129-54-3-2023-eng.pdf">https://publications.gc.ca/collections/collection\_2024/sc-hc/H129-54-3-2023-eng.pdf</a>

Appendix B of this guidance document provides a checklist that may be beneficial in verifying that the main components of a noise environmental assessment are completed.

Health Canada. 2023. Guidance for Evaluating Human Health Effects in Impact Assessment: Air Quality. Healthy Environments and Consumer Safety Branch, Health Canada, Ottawa, Ontario. https://publications.gc.ca/collections/collection\_2024/sc-hc/H129-54-1-2023-eng.pdf

Appendix A of this guidance document provides a checklist that may be beneficial in verifying that the main components of an air quality environmental assessment are completed.

Health Canada. 2023. Guidance for Evaluating Human Health Effects in Impact Assessment: **Drinking and Recreational Water** Quality. Healthy Environments and Consumer Safety Branch, Health Canada, Ottawa, Ontario. <u>https://publications.gc.ca/collections/collection\_2024/sc-hc/H129-54-2-2023-eng.pdf</u>

Appendix A of this guidance document provides a checklist that may be beneficial in verifying that the main components of a water quality environmental assessment are completed.

Health Canada. 2023. Guidance for Evaluating Human Health Effects in Impact Assessment: **Country Foods**. Healthy Environments and Consumer Safety Branch, Health Canada, Ottawa, Ontario. https://publications.gc.ca/collections/collection 2024/sc-hc/H129-54-5-2023-eng.pdf

Appendix A of this guidance document provides a checklist that may be beneficial in verifying that the main components of a country foods environmental assessment are completed.

Health Canada. 2023. Guidance for Evaluating Human Health Effects in Impact Assessment: **Human Health Risk Assessment**. Healthy Environments and Consumer Safety Branch, Health Canada, Ottawa, Ontario. <u>https://publications.gc.ca/collection\_2024/sc-hc/H129-54-6-2023-eng.pdf</u>

Appendix B of this guidance document provides a checklist that may be beneficial in verifying that the main components of a human health risk assessment are completed.



#### Human Health Considerations when Assessing Noise Impacts Related to Wind Turbine Projects<sup>1</sup>

Last updated: March 20, 2024

Health Canada (HC) provides the following general considerations for evaluating human health impacts of noise from wind turbine project-related activities. This is not an exhaustive list of human health concerns related to wind turbine projects, and issues will vary based on individual aspects of each project. Further HC guidance on other areas of expertise (i.e., air quality, recreational and drinking water quality, traditional/country foods, and methodological expertise in conducting human health risk assessment and health impact assessment) is available and referenced at the end of this document\*.

Please note that HC does not approve or issue licenses, permits, or authorizations in relation to environmental/impact assessment (EA/IA). HC's role in EA/IA is founded in statutory obligations under the *Impact Assessment Act*, and its knowledge and expertise can be called upon by reviewing bodies (e.g., Impact Assessment Agency of Canada, review panels, Indigenous groups and/or other jurisdictions). In the absence of such a request from one of the above noted groups, HC is unable to carry out a comprehensive review of the project. However, whenever feasible, HC is able to accommodate requests for specific human health advice and guidance related to provincial EAs within a reasonable timeframe.

HC advises that an assessment of noise exposure for human receptors located near the project site consider the following:	Consideration	<b>Reference Document</b>
Receptor Location		
It is important to identify and describe all existing and reasonably foreseeable human receptors (i.e., permanent, seasonal, or temporary) in the area that may be influenced by project-related noise—including a description of how the receptors were identified (e.g., recent	• HC prefers that noise assessments identify and describe any particular receptors that may have a heightened sensitivity to noise exposure (e.g., locations where Indigenous peoples' cultural or religious ceremonies occur, schools, childcare centres, hospitals).	Appendix G of HC's noise guidance <sup>2</sup> provides a list of commonly encountered receptors and related characteristics. Section 6.1 of HC's noise guidance contains additional information
land-use maps, verification in person).	• It may also be useful to include map(s) illustrating modelled noise levels from the project at receptor locations in the study area.	regarding identification of human receptors in a project area.

<sup>2</sup> Health Canada. 2023. Guidance for Evaluating Human Health Impacts in Impact Assessment: Noise. Healthy Environments and Consumer Safety Branch, Health Canada, Ottawa, Ontario. <u>https://publications.gc.ca/site/eng/9.930338/publication.html</u> Last updated: March 20, 2024

<sup>&</sup>lt;sup>1</sup> This document includes general advice on wind turbine noise and health. It should not be interpreted as formal Department guidance.

<ul> <li>In reviewing an EA/IA, HC focuses on noise exposure levels that have the potential for adverse human health effects. Wind turbine noise can be generated through modulation noise (caused by rotation), low frequency noise (rattle), or transformer noise. There may also be construction-related noise (e.g., heavy machinery). These noises may adversely impact human health predominately through sleep disturbance, decreased speech comprehension, and/or high levels of annoyance. Impacts may vary depending on the project phase (e.g.: impulsive noise events during the construction phase and continuous noise sources during the operational phase), sensitivity of nearby receptors, and duration and frequency of noise exposure.</li> <li>Sleep disturbance encompasses the following: difficulty falling asleep; awakenings; curtailed sleep disturbance, hease see durations of the World Health Organization (WHO)<sup>3,4</sup> regarding sleep disturbance as being an indoor sound level of no more than 30 A-weighted decibels (dBA) equivalent continuous sound level (LAeq) for continuous noise, during the sleep period.</li> <li>The WHO has published night-time noise groups, from adverse health effects associated with sleep disturbance due to night-time noise. The recommended annual average is 40 dBA night-time sound level (Ln) outdoors (WHO 2009)<sup>4</sup>.</li> </ul>	Health Impacts Associated with Noise			
	In reviewing an EA/IA, HC focuses on noise exposure levels that have the potential for adverse human health effects. Wind turbine noise can be generated through modulation noise (caused by rotation), low frequency noise (rattle), or transformer noise. There may also be construction-related noise (e.g., heavy machinery). These noises may adversely impact human health predominately through sleep disturbance, decreased speech comprehension, and/or high levels of annoyance. Impacts may vary depending on the project phase (e.g.: impulsive noise events during the construction phase and continuous noise sources during the operational phase), sensitivity of nearby receptors, and	<ul> <li>difficulty falling asleep; awakenings; curtailed sleep duration; alterations of sleep stages or depth; and increased body movements during sleep. The short- term effects of sleep disturbance have been shown to include, but are not limited to: increased fatigue; irritability; and decreased concentration and performance. The guidelines and recommendations of the World Health Organization (WHO)<sup>3,4</sup> regarding sleep disturbance can be considered in the EA/IA.</li> <li>The WHO's Guidelines for Community Noise (1999)<sup>3</sup> report a threshold for sleep disturbance as being an indoor sound level of no more than 30 A-weighted decibels (dBA) equivalent continuous sound level (LAeq) for continuous noise, during the sleep period.</li> <li>The WHO has published night-time noise guidelines that are intended to protect the public, including the most vulnerable groups, from adverse health effects associated with sleep disturbance due to night-time noise. The recommended annual average is 40 dBA night-time sound level (Ln)</li> </ul>	induced sleep disturbance, please see	

<sup>&</sup>lt;sup>3</sup> World Health Organization (WHO). 1999. Guidelines for Community Noise. Berglund, B., Lindvall, T. and Schwela, D.H (Eds.). Available online at: <a href="https://www.who.int/docstore/peh/noise/guidelines2.html">www.who.int/docstore/peh/noise/guidelines2.html</a>

<sup>&</sup>lt;sup>4</sup> World Health Organization (WHO). 2009. Night Noise Guidelines for Europe. Hurtley, C. (Ed). Available online at: <u>www.euro.who.int/en/health-topics/environment-and-health/noise/publications/2009/night-noise-guidelines-for-europe</u>

<ul> <li>For individual noise events, the WHO<sup>3</sup> has stated: "For a good sleep, it is believed that indoor sound pressure levels should not exceed approximately 45 dBA LAmax (maximum A-weighted sound level) more than 10–15 times per night"</li> <li>As people may keep windows partially open at night, HC uses an outdoor-to-indoor transmission loss of 15 dBA for windows at least partially open. Fully closed windows are assumed to reduce outdoor sound levels by approximately 27 dBA.</li> </ul>	
<ul> <li>To sustain adequate speech comprehension, HC holds the view that background noise levels (i.e., noise due to project activities as measured indoors) be maintained below 40 dBA.</li> <li>When a school is identified as a potentially impacted receptor, the WHO recommends an ideal background noise level of 35 dBA in the classroom (WHO 1999)<sup>3</sup>.</li> </ul>	Please see Section 5.3 of HC's noise guidance <sup>2</sup> for more information on interference with speech comprehension.
• In quiet rural areas, HC suggests that during construction, the short-term average day-night sound level (Ldn) be below 47 adjusted dBA at residences, as this is expected to be the threshold for widespread complaints for construction noise, and mitigation measures be considered if predicted noise levels are above this threshold.	Section 6.3.1 of HC's noise guidance <sup>2</sup> provides advice related to short-term construction noise (< 1 year).
• Community annoyance due to noise, measured as the Percent Highly Annoyed (%HA), can be thought of as an aggregate indicator of assorted noise effects that are creating a negative effect on the community. HC uses the change in %HA as an appropriate indicator of noise-induced human health effects from exposure to long-term construction noise and project operational noise.	Sections 6.3.1 and 6.3.2 of HC's noise guidance <sup>2</sup> provides advice related to long-term construction noise ( $\geq$ 1 year)

	<ul> <li>To assess the impacts of noise from projects using this indicator, the project-related change in the sound environment and the related increase in %HA are evaluated.</li> <li>Noise mitigation measures should be considered when a change in the calculated %HA at any given receptor location exceeds 6.5%.</li> </ul>	Appendix F in HC's noise guidance <sup>2</sup> presents the %HA equations as well as the methodology for obtaining variables used in the equations.
Low Frequency Noise (LFN) and Infraso	and	
Low frequency noise (LFN) (typically 20- 100 Hertz (Hz); whereas infrasound is typically defined as being below 20 Hz) may result from wind turbines, particularly from larger turbines (>2.3 Megawatts (MW)(Moller, H and C.S. Pederson, 2010) <sup>5</sup> ). LFN is an important component of the total noise levels experienced by receptors near large wind turbines.	<ul> <li>LFN is not generally well perceived by the human ear; however, it may induce vibrations in lightweight structures in residences or sleeping quarters that may be perceptible or cause a "rattle." Research indicates that annoyance related to noise is greater when LFN is present (ISO 1996-1:2003)<sup>6</sup> and one of the main reasons is the annoyance caused by rattles.</li> <li>The indoor environment can also be evaluated in the assessment; however, this should be addressed on a case-by-case basis given the uncertainty associated with specific resonances indoors that may affect the audibility of tones indoors. Due to the potential for masking by certain octave bands indoors, it is possible that certain tones may be audible indoors but not outdoors and vice versa.</li> </ul>	Please see Appendix C.2 of HC <sup>2</sup> for more information on LFN.

<sup>&</sup>lt;sup>5</sup> Moller, H. and C. S. Pederson. 2010. Low-frequency noise from large wind turbines. J. Acoust. Soc. Am. 129(6), June 2011. Available at : <u>https://pubs.aip.org/asa/jasa/article/139/3/1431/910721/Wind-turbine-sound-power-measurements</u>

<sup>&</sup>lt;sup>6</sup> International Organization for Standardization (ISO). 2003. ISO 1996-1:2003 Acoustics – Description, measurement and assessment of environmental noise – Part 1: Basic quantities and assessment procedures. <u>www.iso.org/iso/catalogue\_detail?csnumber=28633</u> Last updated: March 20, 2024

<ul> <li>As sound environments are usually characterized using A-weighted decibel levels (dBA) that reflect the frequencies most audible to the human ear, the impacts of low-frequency noise may need to be assessed separately.</li> <li>To prevent rattles from low-frequency noise and the associated annoyance from this effect, American National Standards Institute ANSI indicates that the (energy) sum of the sound levels in the 16-, 31.5- and 63-Hz octave bands be less than 70 Z-weighted decibels (dBZ). If this 70-dBZ "rattle criterion" is exceeded, HC suggests the implementation of feasible mitigation measures.</li> <li>Additionally, ANSI 2005<sup>7</sup> provides a more sophisticated mathematical procedure for assessing %HA when low-frequency noise is present. HC prefers using this procedure when the C-weighted Ldn exceeds the A-weighted Ldn by more than 10 dB.</li> <li>Broner (2011)<sup>8</sup> has provided simplified outdoor dBC LFN criteria based on the type of receptor (i.e., residential and commercial) and time of day. Based on these criteria, LFN does not generally require further consideration if outdoor Ld is ≤ 60 dBC, and Ln ≤ 55 dBC. At 10 Hz, 60 dBC is approximately 69 dBZ.</li> </ul>	The ANSI standard on environmental sound regarding noise assessment and the related prediction of long-term community response (2005) <sup>7</sup> provides guidance for low- frequency sound (or infrasound) in the 16-63 Hz octave bands. Appendix D of ANSI 2005 <sup>7</sup> further outlines the procedure for assessing %HA when low-frequency noise is present.
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 <sup>&</sup>lt;sup>7</sup> American National Standards Institute (ANSI). 2005. Quantities and Procedures for Description and Measurement of Environmental Sound Part 4: Noise Assessment and Prediction of Long-Term Community Response (ANSI S12.9-2005/Part 4). Standards Secretariat Acoustical Society of America.
 <sup>8</sup> Broner, N. 2011. A Simple Outdoor Criterion for Assessment of Low Frequency Noise Emission. Acoustics Australia: 39:1–7. Available at: <a href="https://www.acoustics.asn.au/journal/2011/2011\_39\_1\_Broner.pdf">https://www.acoustics.asn.au/journal/2011/2011\_39\_1\_Broner.pdf</a>
 Last updated: March 20, 2024

Noise Modelling, Mitigation and Monitoring		
Assessing potential impacts to human health from project-related noise, including calculating %HA, may require measuring baseline noise levels, modelling predicted project-related noise levels, and monitoring noise levels during project's construction and operational phases to verify model predictions.	<ul> <li>When baseline measurement is conducted, HC prefers that the measurement be completed in accordance with the International Organization for Standardization (ISO) 1996-2:2007<sup>9</sup> at each representative receptor (existing and reasonably foreseeable), and that the reports include the dates and hours used to characterize these measurements.</li> <li>HC recommends adjustments to baseline noise levels in certain settings, for example, baseline levels in quiet rural areas are adjusted by adding 10 decibels (dB). This 10 dB adjustment also applies to the predicted project noise levels in determining %HA, resulting in a greater change in %HA than would occur with unadjusted noise levels.</li> <li>In addition, HC recommends that non-anthropogenic sounds (e.g. ocean, wind, and animal noises) be removed from baseline measurements. Not removing them may result in an overestimation of baseline and future changes in %HA calculations.</li> <li>HC recommends use of an appropriate windscreen must always be used and sound is not to be measured in the presence of precipitation or when wind speeds exceed 14 km/hr (3.9 m/s) unless these effects can be shown to be negligible (ISO 1996–2:2007)<sup>9</sup>. The specific windscreen required will be dependent on atmospheric conditions including wind speed and air turbulence (Van den Berg, 2006)<sup>10</sup>. For wind speeds below 14 km/hr, outdoor measurements always require a minimum 70 mm</li> </ul>	For more information on adjustments, please see Section 6.1 of HC's noise guidance <sup>2</sup> . Please see Section 6.2.1 of HC's noise guidance <sup>2</sup> for more information on removing non-anthropogenic sounds.

<sup>&</sup>lt;sup>9</sup> International Organization for Standardization (ISO). 2007. ISO 1996-2:2007 Acoustics – Description, measurement and assessment of environmental noise – Part 2: Determination of environmental noise levels. <u>www.iso.org/iso/iso\_catalogue/catalogue\_tc/catalogue\_detail.htm?csnumber=41860</u> <sup>10</sup> Van den Berg, G. P. 2006. Wind-induced noise in a screened microphone. J. Acoust. Soc. Am; 119:824-833. <u>https://doi.org/10.1121/1.2146085</u>

Last updated: March 20, 2024

<ul> <li>diameter windscreen. For other conditions, including evaluating low frequency sounds (e.g., C-weighted decibels or dBC), larger windscreens may be required.</li> <li>It is important that the predicted operational noise levels for both daytime (Ld) and night-time (Ln) at all representative receptor locations should be reported in the EA/IA. To permit a proper comparison of noise levels, the units, averaging times and other measurement parameters (including the uncertainty associated with any of the measurements) should be</li> </ul>	Please see Section 6.3.2 of HC's noise guidance <sup>2</sup> for more information on modelling project operational noise.
<ul> <li>associated with any of the measurements) should be the same as those used in establishing the baseline.</li> <li>The assessment should clearly identify the model(s) used and justify their suitability. Specific models may be selected on a site-by-site basis and different modelling software may be appropriate depending on the size of the turbine(s). HC prefers that any assumptions used are conservative (i.e., reasonable worst-case scenarios, including for wind speed and ground attenuation) and be adequately described in the assessment.</li> <li>It is recommended that the EA/IA indicate whether or not there will be a transformer located adjacent to each wind turbine. If individual transformers are present, it is recommended that this additional noise source be included in any operational noise modeling.</li> </ul>	
<ul> <li>While modelling software can be useful in predicting wind turbine noise at nearby receptors, actual noise levels may differ from predicted levels due to uncertainties in model predictions.</li> <li>If there are uncertainties in the noise modelling, consider monitoring noise levels, particularly in the event of public complaints.</li> </ul>	Section 6.4 of HC's noise guidance <sup>2</sup> provides additional information on noise management and noise monitoring plans.

	<ul> <li>If Ldn levels from table 6.2 in HC Noise guidance for short-term construction noise cannot be obtained or if 6.5 % of HA is attained for long-term construction and operational noise with the use of quieter technology during construction, HC suggests that community consultation be undertaken to determine work schedules and to inform the public of the times and duration of noisy activities (including blasting if applicable). In general, HC suggests that impulsive sources (e.g., hammering, pile driving) be avoided at night and in the early morning.</li> <li>If noise levels are predicted or measured to exceed acceptable levels at the exterior of any nearby receptor location (during construction or operation), the implementation of additional mitigation should be considered.</li> </ul>	Sections 6.4.1 and 6.4.2 of HC's noise guidance <sup>2</sup> provide advice on appropriate mitigation noise levels. Please see Appendix H of HC <sup>2</sup> for suggested construction noise mitigation measures. Section 6.4 of HC's noise guidance <sup>2</sup> provides additional information about mitigation.
Developing a community consultation plan may be helpful for wind turbine projects. Community reaction to noise impacts following community consultation is more likely to be understanding and accepting of noise, and more likely to make appropriate adjustments to limit noise exposure. Meaningful community consultation and engagement throughout the lifespan of the project can be an effective way to identify and mitigate project-related noise concerns.	• It is recommended that the EA/IA should specify whether community consultation with respect to noise has occurred, and whether any human health concerns have been expressed by potentially impacted receptors.	Section 6.4.1 of HC's noise guidance <sup>2</sup> provides additional information on community consultation as it relates to noise.
	<ul> <li>Consider implementing a formalized complaint- response protocol (i.e., a formalized means of receiving and responding to complaints in a timely fashion) with additional monitoring and mitigation measures defined, particularly in the event of public complaints.</li> <li>Noise management and noise monitoring plans, including complaint resolution plans, are often incorporated as part of the EA/IA's Environmental Management Plan.</li> </ul>	

For more information on HC's guidelines relating to project noise and the use of these guidelines, please see:

Health Canada. 2023. Guidance for Evaluating Human Health Effects in Impact Assessment: NOISE. Healthy Environments and Consumer Safety Branch, Health Canada, Ottawa, Ontario. <u>https://publications.gc.ca/site/eng/9.930338/publication.html</u>

• Appendix B of this guidance document provides a checklist that may be beneficial in verifying that the main components of a noise impact assessment are completed.

#### Please also refer to HC's other guidance documents for evaluating human health impacts in environmental/impact assessments:

Health Canada. 2023. Guidance for Evaluating Human Health Impacts in Impact Assessment: Air. Healthy Environments and Consumer Safety Branch, Health Canada, Ottawa, Ontario. <u>https://publications.gc.ca/site/eng/9.902734/publication.html</u>

Health Canada. 2023. Guidance for Evaluating Human Health Impacts in Impact Assessment: Water Quality. Healthy Environments and Consumer Safety Branch, Health Canada, Ottawa, Ontario. <u>https://publications.gc.ca/site/eng/9.902736/publication.html</u>

Health Canada. 2023. Guidance for Evaluating Human Health Impacts in Impact Assessment: Country Foods. Healthy Environments and Consumer Safety Branch, Health Canada, Ottawa, Ontario. <u>https://publications.gc.ca/site/eng/9.930343/publication.html</u>

Health Canada. 2023. Guidance for Evaluating Human Health Impacts in Impact Assessment: Human Health Risk Assessment. Healthy Environments and Consumer Safety Branch, Health Canada, Ottawa, Ontario. <u>https://publications.gc.ca/site/eng/9.930345/publication.html</u>

\*For consideration of other human health impacts (i.e., other than noise; including atmospheric impacts during construction, run-off to recreational water, etc.) related to EA/IA, please find the attached document entitled *Human Health Considerations in IA*. Additionally, please contact HC if you are interested in the draft *Interim Guidance on Health Impact Assessment of Designated Projects Under the Impact Assessment Act*, which focuses on a determinants of health approach.



Subject: <b>#24-EA-325)</b>	Windy Ridge Wind Power Project, Colchester County, Nova Scotia (DFO File
From:	Tiffany MacAulay, Linear Development, Regulatory Review Biologist, Fish and Fish Habitat Protection Program; Sign-off by Sarah Rombaut, A/Senior Biologist
To:	Kelly Maher, Environmental Assessment Officer
Date:	June 11, 2024

Fisheries and Oceans Canada (DFO) is responsible for administrating the fish and fish habitat protection provisions of the *Fisheries Act* (FA), the *Species at Risk Act* (SARA), and the *Aquatic Invasive Species Regulations*.

DFO's review focused on the impacts of the works outlined in the Windy Ridge Wind Power Project Environmental Assessment Registration Document (EARD) to potentially result in:

- the death of fish by means other than fishing and the harmful alteration, disruption
  or destruction of fish habitat, which are prohibited under subsections 34.4(1) and
  35(1) of the Fisheries Act;
- effects to listed aquatic species at risk, any part of their critical habitat or the residences of their individuals in a manner which is prohibited under sections 32, 33 and subsection 58(1) of the Species at Risk Act; and
- The introduction of aquatic species into regions or bodies of water frequented by fish where they are not indigenous, which is prohibited under section 10 of the *Aquatic Invasive Species Regulations*.

## **Technical Comments:**

Risk Assessment: Watercourse Crossing Designs	
Identify Gap/Risk	Specific information related to the anticipated watercourse crossings is not yet determined. For example, in Section 7.3.2.1 of the EARD, 60-75 watercourses may require new crossings, and Section 2.5.2 notes that culvert or bridges will be installed for new roads while designs and decisions for crossings at existing roads will depend on the state of existing infrastructure.
Can it be addressed in another permit/approval or with a T&C?	The identified gap can be addressed during the DFO regulatory review process. Works, undertakings or activities (WUAs) associated with this project in or near water that may result in potential harmful impacts on fish or fish habitat will require DFO regulatory review to avoid, mitigate or offset those impacts.

# Canadä

Define/provide detail	For WUAs that may result in potential harmful impacts on fish or fish habitat, additional information will be required as part of the DFO regulatory review process, including detailed information on the proposed WUAs, a detailed description of the fish and fish habitat found at the location of the proposed WUAs, a detailed description on the likely effects of the proposed WUAs on fish and fish habitat, and a detailed description of the measures and standards that will be implemented to avoid, mitigate and potentially offset harmful impacts on fish and fish habitat.
Risk Assessmer	it: Wetland Assessment
Identify Gap/Risk	53 wetlands were identified as being "known or likely to have fish seasonally"; however, impacts to fish and fish habitat from wetland alterations are not clearly outlined. Further information on habitat availability for fish within these wetlands is required, in addition to information on the potential impacts (direct and indirect) to fish and fish habitat within these impacted wetlands.
Can it be addressed in another permit/approval or with a T&C?	The identified gap can be addressed during the DFO regulatory review process. WUAs associated with this project in or near water that may result in potential harmful impacts on fish or fish habitat will require DFO regulatory review to avoid, mitigate or offset those impacts.
Define/provide detail	For WUAs that may result in potential harmful impacts on fish or fish habitat, additional information will be required as part of the DFO regulatory review process, including detailed information on the proposed WUAs, a detailed description of the fish and fish habitat found at the location of the proposed WUAs, a detailed description on the likely effects of the proposed WUAs on fish and fish habitat, and a detailed description of the measures and standards that will be implemented to avoid, mitigate and potentially offset harmful impacts on fish and fish habitat.

# Summary of Recommendations: (provide in non-technical language)

DFO recommends the proponent:

 Submit detailed information on the proposed watercourse crossing and wetland alteration designs, detailed descriptions of the fish and fish habitat found at the location of the proposed WUAs, detailed descriptions on the likely effects of the proposed WUAs on fish and fish habitat (including local and cumulative impacts, potential impacts on species at risk, and direct and indirect impacts on fish and fish habitat), and detailed descriptions of the measures and standards that will be implemented to avoid and mitigate potential harmful impacts on fish and fish habitat.

# Canadä

- Consider open bottom structures, such as clear span bridges and open bottom arch culverts for fish bearing watercourse crossings rather than closed bottom structures, where possible; and
- Refer to DFO's website, <u>https://www.dfo-mpo.gc.ca/pnw-ppe/index-eng.html</u>, for further information on DFO's regulatory review process and for further measures to protect fish and fish habitat.

This information can be provided through submission of a DFO Request for Review application (<u>https://www.dfo-mpo.gc.ca/pnw-ppe/reviews-revues/request-review-demande-d-examen-004-eng.html</u>). DFO will then conduct a regulatory review of the proposed project under the *Fisheries Act, Species at Risk Act,* and Aquatic Invasive Species Regulations to determine if an authorization under the *Fisheries Act* and/or a *Species at Risk* permit is required.

#### **Higgins**, Jeremy W

To: Subject: Maher, Kelly WINDY RIIDGE WIND POWER PROJECT - Environmental Assessment Registration -Comments due June 25, 2024

From: Maher, Kelly <Kelly.Maher@novascotia.ca>
Sent: Monday, June 17, 2024 8:17 AM
To: Higgins, Jeremy W <Jeremy.Higgins@novascotia.ca>
Subject: Fwd: WINDY RIIDGE WIND POWER PROJECT - Environmental Assessment Registration - Comments due June 25, 2024

From: Cuthbert, Robert W <<u>Robert.Cuthbert@novascotia.ca</u>>
Sent: Monday, June 17, 2024 7:02 AM
To: Maher, Kelly <<u>Kelly.Maher@novascotia.ca</u>>
Cc: Seaboyer, Matt P <<u>Matt.Seaboyer@novascotia.ca</u>>
Subject: RE: WINDY RIIDGE WIND POWER PROJECT - Environmental Assessment Registration - Comments due June 25, 2024

Kelly,

There are no comments from Resource Management Unit.

Regards, Robert



Subject:	Windy Ridge Wind Power Project, Colchester County, Nova Scotia
From:	Mark MacDonald, ICE – Environmental Enforcement Officer
To:	Kelly Maher, Environmental Assessment Officer
Date:	June 17, 2024

This review focuses on the following mandate: Wetland and Watercourse Alterations

## List of Documents Reviewed:

Windy Ridge Wind Power Project Environmental Assessment Registration Document and associated Appendices dated May 29, 2024.

#### **Details of Technical Review:**

No Comments

# Key Considerations: (provide in non-technical language)

No Comments



Subject:	Windy Ridge Wind Power, Colchester County, Nova Scotia
From:	Climate Change Division – Nancy Rondeaux
To:	Kelly Maher, Environmental Assessment Officer
Date:	June 21, 2024

This review focuses on the following mandate: Climate Change Adaptation and Mitigation

## List of Documents Reviewed:

• Windy Ridge Wind Power Project Environmental Assessment (Registration Document)

#### **Details of Technical Review:**

#### Adaptation

- In Section 5.2.1, "Climate and Weather," the proponent provides 30-year climate normal values (1981-2010, and also 1991-2020) for the project area, in keeping with guidance. The proponent also took care to choose appropriate weather stations (while Debert is closest to the project area, Jackson is more similar in elevation and was also included).
- The proponent does not include climate projections for the project area, and overall, future climate and/or potential impacts of climate change on the project are not mentioned in the registration document.

## Mitigation

- The proponent provides calculated total GHG emissions from the construction, transport, and operation of the wind farm as a producer of electricity entirely to produce green hydrogen and ammonia for export. The proponent also compares the emissions to the current baseline to indicate the difference the project makes in reducing GHG emissions.
- The proponent indicates emissions from fabrication and transport 236,159 T CO2e and loss of CO2e sequestration due to land clearing – 748.8 T per year Emissions due to operations and maintenance – 37.7 T per year.
- The information provided is sufficient and goes beyond what is expected for this type of project.

# Key Considerations: (provide in non-technical language)

Adaptation

• We suggest the proponent consider using the latest climate projections for the local area available through ClimateData.ca and adopt the risk management framework in the *Guide to Considering Climate Change in Project Development in Nova Scotia* to assess the potential climate impacts and risks to the project and identify any risk mitigation measures.

# Mitigation

• There are no further recommendations to be made.



Subject:	Windy Ridge Wind Power, Colchester County, Nova Scotia
From:	Environmental Health Consultant, Environmental Health and Food Safety Branch, Sustainability and Applied Science Division.
То:	Kelly Maher, Environmental Assessment Officer
Date:	June 26, 2024

This review focuses on the following mandate: Protecting human health from hazards originating from the environment

## List of Documents Reviewed:

Windy Ridge Wind Power Project EARP

# Air Quality:

- The Project has undertaken work to establish baseline air quality within the vicinity of the project.
- Receptors within 2km of the project area were identified.
- It is expected that project related impacts to air quality will occur primarily during the construction phase, and project related impacts have been described.
- Mitigation measures have been identified to minimize project related impacts to air quality and will be further described within the EPP.
- It is anticipated that during the operational phase of this project air quality impacts will be infrequent, short in duration and low in magnitude.

## Acoustics:

- Baseline sound levels in the vicinity of the project have been established utilizing Health Canada guidance.
- 21 receptors were identified with 2km of the project area.
- Project related impacts to the acoustic environment have been described.

- Mitigation measures have been identified to minimize project related impacts to the acoustic environment/human receptors and will be further described within the EPP.
- Predictive sound levels modelling was undertaken to estimate project related and cumulative impacts on the acoustic environment utilizing methods consistent with ISO Standards.
- The potential for the project to produce low frequency noise was assessed utilizing NSECC guidance. No low frequency tonal components were identified for this project.
- Noise modelling results have shown that during project operations noise impacts at all non-participating receptors is below the NS Standard of 40dB(A)

# Drinking Water Wells:

- 66 wells have been identified within 2km of the PDA. 52 wells were identified within 1km of the project access road. Wells are used primarily for domestic single family dwellings.
- Baseline levels of groundwater quality and quantity were assessed. Bedrock in the area has been observed to contain elevated levels of arsenic, uranium, manganese and iron.
- Project related impacts to groundwater quality and quantity have been described. Mitigation measures have been identified and will be further described within the EPP.
- The EARP states: "If demonstrable changes in groundwater quality (or quantity) to a well are detected, an alternative water supply, of equal or better quality than that impacted, will be provided to the landowner."

# Shadow Flicker:

- The Project identified 21 receptors within 2km of the project area.
- Shadow flicker modelling was undertaken using WindPro software to estimate shadow flicker impacts at each receptor.
- Modelling results have shown that during operations shadow flicker impacts at each non-participating receptor is below the NS Standard (30 hours per year and/or a maximum of 30 minutes on a single day.

# Key Considerations:

There are no specific concerns or issues from an environmental health perspective in relation to this proposed project, based on a review of the EARD

Any plans developed for mitigating risks related to health protection from the project (including dust, noise, and shadow flicker) should outline roles and responsibilities for onsite personnel, and include triggers for response/reporting activities when thresholds are exceeded.

Risks to human health during construction from naturally occurring substances in soil and rock (such as arsenic and uranium) should be incorporated into site specific mitigation plans.

Subject:	Windy Ridge Wind Power Project, Colchester County, Nova Scotia
From:	Nova Scotia Office of L'nu Affairs – Consultation Division; <b>Reviewed by Beata Dera, Director of Consultation</b>
То:	Kelly Maher, Environmental Assessment Officer
Date:	June 25, 2024

The following review considers whether the information provided will assist the Province in assessing the potential of the proposed Project to adversely impact established and/or asserted Mi'kmaw Aboriginal and/or Treaty rights.

#### List of Documents Reviewed:

Environmental Assessment Registration Document.

#### Details of Technical Review:

#### Section 3.2 The Mi'kmaq of Nova Scotia

OLA acknowledges that a Mi'kmaq Ecological Knowledge Study (MEKS) is currently underway by Membertou Geomatics Solutions (MGS) for the proposed Project. Typically, for a project of this scope and scale, a MEKS would be included as part of the final EARD submission in order to determine what, if any, traditional and current use activities are practiced by the Mi'kmaq of Nova Scotia within the Project area and whether mitigation measures are required to support the continued use of the Project area by the Mi'kmaq of Nova Scotia. Given that the MEKS was not complete at the time that the EARD was registered, an effects analysis of the proposed Project on the traditional use of land resources was not undertaken.

#### 3.2 The Mi'kmaq of Nova Scotia

OLA is encouraged to see that early engagement with the Mi'kmaq of Nova Scotia was prioritized. OLA acknowledges the Proponent's commitment to on-going, meaningful engagement with the Mi'kmaq of Nova Scotia by continuing to provide regular project updates and seek feedback throughout the Project, offering tours of the Project to the Mi'kmaq during construction and operation and developing a Mi'kmaq Communication Plan.

This section states that emails were sent to all Mi'kmaq communities, containing a Project overview, location, website, open house presentation details, and maps. Meetings were also held with various Mi'kmaq communities and organizations.

This section also states that the feedback from these meetings has informed the overall design, sizing, and development of the Project, such as revising the layout to decrease the number of turbines on Crown Lands, modifying the road and turbine layout to avoid or reduce potential for adverse effects to Mainland Moose, and removing turbines from old growth forest and tracts of mature intact forest.

#### 9.3.2.1 Loss of Wetland Habitat

This section states that there is a potential for 70 ha of wetlands to be impacted by the proposed Project.

Wetlands support a wide variety of plants, including those that the Mi'kmaq consider to be for sacred, ceremonial, and medicinal purposes.

# 10 Terrestrial Wildlife 10.2.1 Mammals

This section states that Mainland Moose are expected in the PDA since the Project overlaps with Core Habitat (as outlined in the Recovery Plan, which spans much of Cumberland and Colchester counties), and the two counties are known to host the largest of the three localized population groups of Mainland Moose in the Province.

Moose are considered a species of significance to the Mi'kmaq of Nova Scotia.

#### **Key Considerations:**

Crown consultation with the Mi'kmaq of Nova Scotia is ongoing for this project. The Mi'kmaq of Nova Scotia may provide additional information that informs the regulator in assessing the proposed project's potential impacts to established and/or asserted Mi'kmaw Aboriginal and Treaty rights and appropriate accommodation and mitigation measures. At this time, OLA is able to provide the following considerations:

The Proponent commits to on-going, meaningful engagement with the Mi'kmaq of Nova Scotia. The Proponent outlined mitigation measures that have been informed by engagement activities with the Mi'kmaq of Nova Scotia, including: revised layout to decrease the number of turbines on Crown Lands and limited the number of roads; modified the road and turbine layout to avoid or reduce potential for adverse effects on Mainland Moose; removed turbines from old growth forests and tracts of mature intact forest; and minimized tree clearing by using existing roads and previously disturbed areas to the extent practicable.

A Mi'kmaq Communication Plan would be helpful to achieve the sharing of information by the Proponent and providing a mechanism for proponent-led engagement and input from the Mi'kmaq, specifically regarding wetland mitigation, compensation, and monitoring plans, Wildlife Monitoring Plans, and the Environmental Protection Plan.

As mentioned above, given that the MEKS was not complete at the time that the EARD was registered, an effects analysis of the proposed Project on the traditional use of land resources was not undertaken. Once the MEKS is complete, OLA encourages the Proponent to review the report and any recommendations to determine if further mitigation measures need to be considered to address the potential use of the Study Area by the Mi'kmaq of Nova Scotia.



Subject:	Windy Ridge Wind Power Project, Colchester County, Nova Scotia
From:	Air Quality Unit
То:	Kelly Maher, Environmental Assessment Officer
Date:	June 24, 2024

This review focuses on the following mandate: Air Quality

## List of Documents Reviewed:

- Windy Ridge Wind Power Project EA Registration Document
- Appendix E

## Details of Technical Review:

Windy Ridge Wind, 4560536 Nova Scotia Limited is proposing to construct and operate an onshore wind farm with a total of 49 wind turbines that will include associated infrastructure such as a substation, an operation and maintenance building, transmission lines to the Nova Scotia Power interconnection point, power collection systems, access roads, and temporary laydown areas. The turbines will have a nominal nameplate capacity of 340 megawatts (MW). The development of this Project will provide renewable energy required to produce certified green hydrogen and ammonia in the region, supporting the clean renewable energy initiative.

Impacts on air quality from this project are most likely to occur from operating vehicles/heavy machinery and fugitive dust emissions during the construction phase of the project. The proponent references data from the NSECC Pictou station, located ~80km from the project area, to determine existing air quality conditions. The proponent notes that all pollutants monitored at the Pictou station were below the Canadian Ambient Air Quality Standards (CAAQS) limits for 2021, and the station is categorized as a "yellow" achievement level, with a goal to prevent deterioration of ambient air quality.

Exhaust emissions (primarily PM, NOx, SO2, and CO) are anticipated to be associated with local roadways and roads developed for the project. Fugitive dust emissions are anticipated from wind erosion, increased vehicle traffic on roadways, soil disturbance during site preparation, and loading/unload materials. These activities are most likely to contribute to increases in concentrations of total suspended particulate (TSP).

The proponent cites the United States Environmental Protection Agency (USEPA) that air quality influences are generally limited to 180m downwind from heavily travelled roadways. Given that the nearest receptor to a proposed turbine location is 748m, impacts to local residential receptors are not anticipated. Overall, exhaust and fugitive dust emissions are expected to be short-term and intermittent. The operation of the turbines will have minimal impacts on air quality – vehicles using the unpaved roads for access may contribute to small increases in airborne dust from time to time.

The proponent states that an Air Quality and Dust Management Plan will be developed in addition to the general mitigation measures listed: water sprays for dust suppression, reestablishing exposed surfaces when possible, ceasing construction activities during high winds, maintaining vehicles and machinery in working order, etc.

#### Key Considerations:

The Air Quality Unit notes the following key considerations:

• It is unclear how effective dust management will be in the absence of a dust management plan with a clear chain of responsibility for actions, including timely complaint resolution.



Subject:	Windy Ridge Wind Power Project, Colchester County, Nova Scotia
From:	Air Quality Unit
То:	Kelly Maher, Environmental Assessment Officer
Date:	June 24, 2024

This review focuses on the following mandate: Noise

## List of Documents Reviewed:

- Windy Ridge Wind Power Project EA Registration Document
- Appendix E
- Appendix L

# Details of Technical Review:

Windy Ridge Wind, 4560536 Nova Scotia Limited is proposing to construct and operate an onshore wind farm with a total of 49 wind turbines that will include associated infrastructure such as a substation, an operation and maintenance building, transmission lines to the Nova Scotia Power interconnection point, power collection systems, access roads, and temporary laydown areas. The turbines will have a nominal nameplate capacity of 340 megawatts (MW). The development of this Project will provide renewable energy required to produce certified green hydrogen and ammonia in the region, supporting the clean renewable energy initiative.

A noise modelling assessment was completed as part of the EA process, and noise was assessed against the permissible sound levels (PSLs) in the NSECC Guidelines for Environmental Noise Measurement and Assessment (GENMA). A separate noise modelling assessment will be completed in accordance with the Colchester County Wind Turbine Development By-law and submitted to Colchester County.

An operational noise assessment was completed according to the ISO 9613-2 standard using the CadnaA software package, with a baseline noise level of 35 dBA used at each receptor location. A total of 14 receptors were identified within the study area (2km buffer around all potential turbine locations) and an additional seven receptors were identified just outside of the study area. All 21 receptors were included in the assessment. Noise from the nearby Kmtnuk wind project was also included in the model to assess for cumulative effects. Operational sound at receptor locations is predicted to comply with the guidelines adopted within Nova Scotia (40 dBA) and the highest predicted sound level at a potential receptor is 37.5 dBA. One receptor was

modelled to experience noise 43 dBA, the owner of this camp has an agreement with the proponent waiving the requirement to comply with noise limits.

The proponent states that most project-related construction sound will be from trucks and other vehicles used to transport workers and materials, heavy machinery (e.g. backhoes), cranes, and small equipment (e.g. welding units). The proponent states that blasting activities may be required depending on geotechnical conditions. Noise levels produced by operational equipment during the construction phase were not included in the noise modelling.

The proponent states that a complaint response protocol will be developed to mitigate noise impacts at nearby receptors.

## Key Considerations:

The Air Quality Unite notes the following key considerations:

- It is unclear if the project has the potential to exceed the appropriate GENMA daytime permissible sound levels for the nearest receptors during the construction phase.
- It is unclear how effective noise management and mitigation will be in the absence of a noise management plan with a clear chain of responsibility for actions, including timely complaint resolution.



Date:	June 24, 2024
To:	Kelly Maher, Environmental Assessment Officer
From:	Beth Lewis, Director of Special Places Protection
Subject:	Windy Ridge Power Project - Environmental Assessment Registration

This review focuses on the following mandate: Archaeology and Paleontology

## List of Documents Reviewed:

EA Document

## **Details of Technical Review (Archaeology):**

The archaeological section of the EA meets CCTH's expectations. However, the fieldwork for HRP A2024NS008 is ongoing, and the visual inspection has not yet been completed. Consequently, it is unknown whether all areas of high archaeological potential have been identified. Any areas of elevated potential that will be impacted by development must be either avoided or tested.

## Details of Technical Review (Paleontology):

The bedrock geology described in the proposal appears to be accurate and is largely free of any potential palaeontology resources. A small area near the start of the access road from Highway 246 does involve Carboniferous strata that have the potential to contain fossil material although it is likely to be common plant fossils.

## **Key Considerations:**

From:	Maher, Kelly
То:	Higgins, Jeremy W
Subject:	Fwd: 23-NS-015 Windy Ridge Wind Energy Project, NS
Date:	June 25, 2024 9:52:48 AM
Attachments:	Wind CWS Atlantic Guidance Update for Wind Energy and Migratory Birds - April 2022 EN.pdf

From: Fazeli,Maryam (elle | she, her) (ECCC) <Maryam.Fazeli@ec.gc.ca>
Sent: Tuesday, June 25, 2024 7:09:00 AM
To: Maher, Kelly <Kelly.Maher@novascotia.ca>
Cc: Hingston,Michael (il | he, him) (ECCC) <Michael.Hingston@ec.gc.ca>
Subject: 23-NS-015 Windy Ridge Wind Energy Project, NS

You don't often get email from maryam.fazeli@ec.gc.ca. Learn why this is important

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Hello Kelly,

Environment and Climate Change Canada (ECCC) has reviewed the Environmental Assessment Registration Document for the proposed Windy Ridge Wind Energy Project by 4560536 Nova Scotia Limited, located 6 km northwest of Debert, Nova Scotia, and we offer the following comments.

#### **Attachments and References**

- ECCC 2022. Environment and Climate Change Canada's Canadian Wildlife Service (Atlantic Region) "Wind Energy & Birds Environmental Assessment Guidance Update" (not available online regionally specific advice)
- ECCC 2007. Wind Turbines and Birds: A Guidance Document for Environmental Assessment. <u>https://publications.gc.ca/site/eng/458437/publication.html</u>
- Lamb et al. 2019. Spatially explicit network analysis reveals multi-species annual cycle movement patterns of sea ducks. <u>https://esajournals.onlinelibrary.wiley.com/doi/epdf/10.1002/eap.1919</u>

#### Wildlife and Wildlife Habitat

#### <u>General</u>

- ECCC notes that comments on the Proponent's proposed pre-construction bird survey program were provided to CBCL during the early planning phase of this project (June 7, 2023). These comments remain applicable to the project.
- 2. Given that the project is registered under Nova Scotia's (NS) Environmental Assessment

*Regulations*, it remains the discretion of the province whether sufficient information has been provided to assess the potential effects of the Project under their jurisdiction and responsibility. ECCC does not have any permits (or authorizations) or approvals in relation to the proposed project. Any advice provided by ECCC is intended to support NS's Department of Environment and Climate Change (NSECC) environmental assessment review process. The Proponent is responsible for identifying measures which ensure their compliance with the *Migratory Birds Convention Act* (MBCA) and the *Species at Risk Act* (SARA).

- 3. The province's Department of Natural Resources and Renewables (NSDNRR) holds technical expertise, jurisdiction, and management authority for birds not protected by the MBCA (e.g., raptors) and terrestrial SAR including bats, reptiles, amphibians, landmammals, insects, plants, and lichen. ECCC advice on these species is derived from federal recovery strategies focused on species recovery. ECCC recommends that the proponent contact the province for technical advice regarding these species.
- 4. The EA Registration document (hereafter EA) includes hedging and ambiguous wording, such as, *"where possible"* and *"to the extent practicable"* when describing mitigation measures.

ECCC recommends removing ambiguous wording from the EA and associated plans. The EA should clearly describe commitments to mitigation measures to avoid/minimize potential effects of the Project on migratory birds and species at risk (SAR), and where effects cannot be avoided/minimized, a proposed plan to mitigate residual impacts should be described (e.g., monitoring plan, scheduling, buffers, offsetting measures, etc.). Contingency plans identifying mitigation measures should be prepared to address <u>all</u> scenarios that may impact migratory birds and SAR during all of times of the year and all project phases.

- 5. The proponent should retain raw survey data (e.g., radar, breeding bird surveys) until appropriate data standards have been developed. Proponents are encouraged to share and store data with:
  - The Atlantic Canada Conservation Data Center (SAR/SOCC observations; <u>http://accdc.com/en/contribute.html</u>)
  - NA Bat (acoustic bat data; https://www.nabatmonitoring.org/upload-data)
  - The Wind Energy Bird and Bat Monitoring Database (bird and bat data; https://naturecounts.ca/nc/wind/main.jsp)
- If considering wildlife protection, mitigation, monitoring and adaptive management plans as part of potential approval conditions related to avifauna and/or migratory bird SAR, ECCC recommends clarifying what elements are expected to be included, and that the consultation process is clear for <u>all</u> parties.

ECCC's preference is that any documents and requests for advice from the proponent be submitted and coordinated through NSECC as part of their EA process via the ECCC-EA window (FCR\_Tracker@ec.gc.ca).

## Section 8.0 Flora

7. Quote (Section 8.3.2.1, pg. 127): "Although Eastern Waterfan was not observed during the 2023 surveys, a small portion of the PDA overlaps with critical habitat of this species. Additionally, habitat for this species was identified within the LAA using a habitat suitability model. Additional field surveys will be completed during the detailed design phase to minimize impacts to this species."

ECCC agrees with the proponent's proposal to conduct additional Eastern Waterfan (SARA-listed as Threatened) surveys during the detailed design phase, as described in Sections 8.3.2.1 and 8.3.2.2. Should Eastern Waterfan be observed during these surveys, ECCC recommends implementing a 50 m riparian (streamside) "no alteration" buffer for all streams existing within a 1 km buffer around the occurrence of Eastern Waterfan. To maintain hydrology regimes and water quality, and prevent siltation in areas around this species, there should be no entry or disturbance activities (e.g., vegetation clearing, road construction or upgrades to access roads, infilling, etc.) in the recommended buffer (upstream and downstream) of lichen occurrences. The Proponent should also prepare mitigation measures, monitoring plan and an adaptive management plan to ensure that the species is not negatively impacted by the Project or associated infrastructure.

The Recovery Strategy and Action Plan for the Eastern Waterfan (*Peltigera hydrothyria*) in Canada [Final] (2021) is available at: <u>https://species-registry.canada.ca/index-en.html#/consultations/3646</u>.

8. Quote (Section 8.2.2, pg. 123): "Two of the lichen species reported within 5 km, Wrinkled Shingle Lichen (Pannaria lurida) and Eastern Waterfan, are federally listed species while Blue Felt Lichen is provincially listed as Vulnerable."

ECCC notes that Blue Felt Lichen is also listed as Special Concern on Schedule 1 of SARA. The Management Plan for the Blue Felt Lichen (*Degelia plumbea*) in Canada [Final] (2022) is available at: <u>https://species-registry.canada.ca/index-en.html#/consultations/3645</u>

9. Quote (pg. 130, Section 8.3.2.3): "Invasive species management procedures will be developed and implemented for construction and operation as part of the Vegetation Management Plan."

Measures to diminish the risk of introducing invasive species should be developed and implemented for all project activities and during all project phases. ECCC recommends cleaning and inspecting construction, maintenance, and decommissioning equipment prior to transport from elsewhere to ensure that no vegetative matter is attached to the

machinery (e.g., use of pressure water hose to clean vehicles prior to transport). Additionally, equipment should be inspected prior to, during and immediately following construction, maintenance, and decommissioning activities in project areas found to support Purple Loosestrife and/or Glossy Buckthorn to ensure that vegetative matter is not transported from one area to another.

#### Section 9.0 Wetlands

10. Quote (section 9. pg.141): "Eleven wetlands within the PDA were determined to be WSS [Wetlands of Special Significance] based on the results of the WESP-AC assessment (Table 9.4) and three wetlands were determined to be WSS based on CBCL field collected SAR data (Table 9.5)."

ECCC advocates for the conservation of wetlands in areas where wetland losses have already reached critical levels (e.g., NB, NS, PEI, southern Ontario, Prairies), regionally important wetlands, and wetlands used by avian SAR and SOCC as part of their lifecycle (e.g., Canada Warbler, Chimney Swift, Olive-sided Flycatcher Common Nighthawk, Lesser Yellowlegs, Greater Yellowlegs, Spotted Sandpiper, Upland Sandpiper, etc.).

In assessing potential for avoidance and minimization impacts to wetlands and avian SAR and SOCC that use wetlands, ECCC recommends that the proponent consider implementing a 30-m buffer around wetlands of special significance (WSS) for all project infrastructure (e.g., turbine pads, access roads, transmission corridors, substation). Any vegetation clearing (even if temporary) should be considered an alteration requiring compensation or other measures to ensure wet soils and wetland functions are maintained for migratory birds and species at risk.

#### Section 10.0 Terrestrial Wildlife

11. Quote (Section 10.2.2.1, pg. 164): "The lack of turtles seen during of the visual [turtle encounter] surveys does not indicate the absence of turtles in the LAA. The poor success rate of VES is well known due to Wood Turtles tendency to hide in dense vegetation or retreat to water upon sensing an approaching threat (Flanagan et al., 2013)."

ECCC agrees that Wood Turtles may occur in the LAA, despite not being detected during the visual encounter surveys. ECCC notes that Wood Turtle can travel hundreds of meters from rivers used for overwintering to their nesting and foraging/thermoregulation habitats. Quarries and gravel pits can attract female Wood Turtles as they search for suitable nesting areas, which include areas with sparse or no vegetation during incubation periods, full to partial sunlight, and sandy or gravelly substrate. September is the pre-overwintering period when Wood Turtles are in the forest and hatchlings emerge from nests early September to early October.

ECCC recommends that vegetation clearing at the site occur outside of the active Wood Turtle season (April to October) to avoid risk of destruction of individuals. ECCC also recommends that the proponent develop and implement mitigation measures for turtles found travelling to nesting and overwintering habitats, such as installation of turtle exclusion fencing with eco-passages and installation of signage alerting drivers to reduce speeds in locations where turtle SAR could occur. These measures should be detailed in the project's Wildlife Management Plan (WMP) and/or Environmental Protection Plan (EPP). The WMP/EPP should also identify measures to be taken by staff / contractors should turtles be found during clearing and construction activities.

The Recovery Strategy for Wood Turtle (*Glyptemys insculpta*) in Canada [Final] (2020) is available at: <u>https://species-registry.canada.ca/index-en.html#/consultations/2864</u>

12. Quote (Section 10.3.2.1, pg. 170): "NSDNRR Mainland Moose and Wood Turtle monitoring plans will be implemented on Crown land and other parcels if possible."

ECCC agrees with the proponent's proposal to implement a monitoring plan for Wood Turtle (SARA-listed as Threatened). Monitoring for Wood Turtle should be conducted for all construction activities occurring during the active Wood Turtle period (April to October).

#### Section 11.0 Bats

13. Quote (Section 11.2.1, pg. 186): "Migratory bats and Myotis species were recorded within the LAA. There are low levels of bat activity within the LAA, with total of 105 bat passes recorded between April 27 and November 1, 2023."

Quote (Section 11.2.1, pg. 186-187): "All migratory bat files were recorded during fall migration (i.e., August 27 to October 10, 2023) suggesting that some migratory bats may traverse through the LAA during fall migration. However, the relatively low number of passes suggests that the LAA does not appear to be serving as a migration corridor for bats."

ECCC notes that low bat activity pre-construction is insufficient to conclude that the LAA is not a migration corridor, nor that risks to SOCC/SAR bats is low. The populations of the three SARA-listed bat species (Little Brown Myotis, Northern Myotis, and Tricolored Bat) are highly depressed in NS, primarily due to introduction of White-nosed Syndrome (WNS), and therefore few acoustic detections are expected. Additionally, the three "migratory" bats, which have been assessed by COSEWIC as Endangered, are highly vulnerable to mortality due to wind turbines. Any additional loss of SOCC/SAR bat individuals, maternity roosts, or and/or hibernacula remaining on the landscape can be biologically significant for these long-lived, k-selected species, and affect their recovery.

ECCC recommends that monitoring, mitigation measures, and adaptive management plans consider the COSEWIC-assessed migratory bat species as though they are SARAlisted SAR, in the event that they become listed during the lifetime of the Project. ECCC also recommends including EA commitments to mitigation measures for minimizing potential impacts to SARA and COSEWIC-listed Endangered bat SAR during the project's operational phase *before* impacts occur, such as reducing cut-in speeds or altering the pitch/feathering the blades during high-risk collision periods (e.g., during migration or swarming or when wind velocity is low).

#### Section 12.0 Birds

- 14. ECCC notes that the proponent completed a comprehensive avian baseline survey program in 2023. However, given the scale of the project (49 turbines >180 m in height), high elevation (178.5 to 355.3 masl in the LAA), presence of species that show considerable variation in abundance/distribution (e.g., Evening Grosbeak), and presence of nearby wind developments (e.g., Kmtnuk Wind Farm, Higgins Mountain Wind Farm, Westchester Wind Project) that could have cumulative impacts on migratory birds, ECCC recommends that the proponent undertake a second year of avian baseline surveys to capture interannual variation and better characterize baseline conditions at the site. The second year of baseline should be consistent in methodology to the first, to the extent possible.
- 15. Quote (Section 12.3.2, pg. 219): "Detailed design of the Project and micrositing of turbines will further avoid bird habitat, when practicable, and reduce potential interactions between the Project and birds."

ECCC notes that the proponent has completed detailed habitat suitability modelling for several SARA-listed avian SAR that may be impacted by the project, including Canada Warbler (Threatened), Chimney Swift (Threatened), Common Nighthawk (Special Concern), Eastern Wood-pewee (Special Concern), Evening Grosbeak (Special Concern), Olive-sided Flycatcher (Special Concern), Rusty Blackbird (Special Concern), and Wood Thrush (Threatened). All these species except Chimney Swift and Wood Thrush were observed during the 2023 baseline bird surveys. Additional SAR detected during these surveys included Bobolink (Threatened), Rusty Blackbird (Special Concern), Barn Swallow (Threatened), and Bank Swallow (Threatened).

The results of the habitat suitability modelling are presented in Appendix A; however, the proponent did not indicate the locations of SAR observations nor discuss whether specific areas or habitat types in the project area had higher concentrations of SAR.

ECCC recommends that the proponent map the locations where avian SAR were detected in relation to proposed project infrastructure and determine whether areas of higher SAR concentrations exist in the LAA. Additionally, ECCC recommends that the proponent clarify how the results of the habitat modelling and 2023 surveys will be used to inform micrositing of turbines (i.e., avoidance of areas with possible suitable breeding habitat for SAR) and how they intend to determine when avoidance of this habitat is "practicable". The proponent should also present technically feasible mitigation measures, including proposed buffers (where applicable) to avoid/lessen all direct and indirect effects on avian SAR and their habitat. In instances where habitat for SAR is not avoided, the proponent should explain why avoidance is not possible, as well as a discussion of conservation allowances if appropriate.

The proponent should also present plans to monitor effects and effectiveness of mitigation measures on SAR and their habitat. In instances where success of proposed mitigation has a measure of uncertainty, the Proponent should provide a discussion of proposed adaptive management measures that could be implemented in a timely manner in the event that adverse effects are detected.

As a best practice, ECCC recommends considering SOCC as though they are listed under SARA and encourages the Proponent to also avoid impacts on these species and their habitats.

16. Quote (Section 12.2.4, pg. 217): "...based on the frequency of Common Nighthawk recordings during the acoustic monitoring program and availability of suitable nesting habitat within the LAA (Figure 12.10), this species is likely to be breeding within the LAA."

ECCC notes that 15.7% of the PDA is possible suitable breeding habitat for Common Nighthawk (CONI) based on habitat suitability modelling presented in the EA. This suitable habitat directly overlaps with six proposed turbine locations and partially overlaps with an additional three (or more) turbine locations. ECCC also notes that CONI were observed during breeding bird point counts, fall migration surveys, and nightjar surveys and represented 68.2% of total detections during spring acoustic monitoring. Of note, CONI were observed at over half of the nightjar survey stations (11/21).

Based on the results of the 2023 surveys and habitat modelling, ECCC agrees that it is very likely the LAA is used by Common Nighthawk for both breeding and foraging.

CONI may have a higher collision risk with turbines/blades than other bird SAR recorded during the breeding period since these species are aerial insectivores known to occupy open habitat areas in search of flying insects. They are crepuscular, and potentially nocturnal, flying at various heights in search of food. They also defend their territories by aerial displays (wing booms) that might make them more susceptible to collisions if they choose to nest close to turbines.

ECCC recommends that the Proponent clearly map the locations where CONI were detected in the LAA during breeding bird point counts, fall migration surveys, and nightjar surveys, and acoustic monitoring in relation to proposed project infrastructure and the results of the proponent's suitable habitat mapping for CONI. Additionally, ECCC recommends that the proponent clarify whether areas with higher occurrence of CONI

and/or modelled suitable breeding habitat will be avoided during micrositing of turbines.

ECCC recommends that the proponent avoid/lessen impacts on CONI and their habitat, identify mitigation measures, and a monitoring plan, including post construction nightjar surveys (dusk and dawn) and mortality monitoring to monitor and prevent bird strikes during the breeding season, and adaptive management measures should effects be detected.

Nightjar surveys will help to determine if these species continue to breed in the area postconstruction or if they are being displaced by the project, and mortality surveys will assist in determining whether these species are colliding with turbines/turbine blades or are able to avoid them while foraging at night.

ECCC recommends referencing the most recent version of the Canadian Nightjar Survey (CNS) Protocol when planning nightjar surveys. Note that because some nightjar surveys are tied to the lunar cycle, the CNS protocol is updated annually to reflect optimal survey dates for a given year.

- 17. ECCC notes that Wilson's Snipe and American Woodcock, two species that undertake aerial flight displays, were detected during nocturnal owl surveys. However, it is unclear whether these observations were near proposed turbine locations or transmission line corridors and whether aerial flight displays were observed. ECCC recommends that the proponent map the locations of Wilson's Snipe and American Woodcock observations and include monitoring and/or mitigation measures for these species in the project's Wildlife Management Plan, if the project is approved.
- 18. Quote (Section 12.2.6, pg. 224): "Pileated Woodpecker nesting cavity will continue to be monitored as this species is listed on Schedule 1 of the Migratory Birds Regulations, 2022. If a Pileated Woodpecker nesting cavity is abandoned for at least 36 months and the tree is to be removed, a notification through the Abandoned Nest Registry will be submitted."

ECCC clarifies that trees with Pileated Woodpecker nesting cavities cannot be removed until 36 months <u>after</u> the unoccupied nesting cavity has been reported to ECCC's Minister via the Abandoned Nest Registry and only if the cavity remains unoccupied by a migratory bird (Pileated Woodpecker or secondary cavity nester) during this designated waiting period.

The 36-month designated waiting period starts on the day the unoccupied nest was reported. Nests for which a notification has been received continue to be protected against damage, destruction, disturbance or removal during the designated waiting period. To register an unoccupied nest via the abandoned nest registry, please visit: <a href="https://www.canada.ca/en/environment-climate-change/services/migratory-bird-permits/notice-abandoned-nest-registry.html">https://www.canada.ca/en/environment-climate-change/services/migratory-bird-permits/notice-abandoned-nest-registry.html</a>.

If a nest is reused by a migratory bird during the waiting period, it is no longer considered unoccupied and the notice becomes void. In this case, proponents must contact <u>AvisNid-NestNotifications@ec.gc.ca</u> so the notification submission may be cancelled. If the nest again becomes unoccupied, and you still wish to destroy the nest, you must submit a new notification, which would re-start the designated waiting period.

ECCC offers the following general recommendations regarding Pileated Woodpecker nesting cavities:

- Review and understand proponents' responsibilities under the amended Migratory Bird Regulations.
- Conduct a survey to identify suitable nesting habitat within the area planned for vegetation clearing.
- Inspect identified suitable nesting trees for any Pileated Woodpecker cavities and determine occupancy; Note: In the Maritimes, ECCC recommends surveying during the second half of June to confirm nesting. By that time, the nestlings are large and loud and may be heard before the cavity can be seen.
- Notify the ECCC Minister through the Abandoned Nest Registry should any abandoned cavities be found on trees that require removal.
- Monitor occupancy of cavity(ies) over the next 36 months prior to removal and establish a vegetated buffer around the tree. Note: it is important that the nest itself remains intact, and we strongly encourage the Proponent to maintain as much surrounding vegetation as possible to preserve the woodpecker's habitat. If the construction activities are expected to extend during the breeding season, then actions must be taken to ensure that the nesting woodpecker is not disturbed by the construction activities.

For more information on the amended nest protections, frequently asked questions on how these protections apply to migratory birds, including Pileated Woodpecker, and responsibilities, please visit ECCC's Nest Protection Fact

Sheet (<u>https://www.canada.ca/en/environment-climate-change/services/avoiding-harm-migratory-birds/fact-sheet-nest-protection-under-mbr-2022.html</u>) and Frequently Asked Questions regarding the Migratory Birds

Regulations <u>https://www.canada.ca/en/environment-climate-change/services/migratory-bird-permits/faq-migratory-birds-regulations-2022.html</u>.

ECCC recommends that the proponent clarify whether the Pileated Woodpecker nesting cavity is located in an area to be cleared for project activities. Additionally, the proponent should include mitigation measures to identify and avoid destruction of trees with nesting cavities for Pileated Woodpecker in the project's Wildlife Management Plan.

19. ECCC notes that several waterfowl species were observed in the LAA during the 2023 avian baseline surveys. Although no scoters or eiders were observed during these surveys

(including nocturnal acoustic monitoring), telemetry data indicate these species cross over the Nova Scotia isthmus via the Cobequid Hills region during migration (Lamb et al. 2019) and consequently, migrating flocks are at risk of collision with project infrastructure (primarily turbines and transmission lines). Common Loon and Red-throated Loon also migrate across this corridor in large numbers and may be at risk of collision.

If the project is approved, ECCC recommends that the post-construction monitoring plan include mortality monitoring at turbines <u>and along transmission lines</u> near areas frequented by waterfowl (e.g., lakes, ponds).

20. ECCC notes that during spring migration, "the highest target volumes were observed in late April, with the highest proportion of target volume within the RSZ [Rotor-swept Zone] observed in early May...most targets in the spring were detected above the RSZ." (Section 12.2.3.3, pg. 215).

While in the fall, "the highest target volumes were observed in late September and early October, with the highest proportion of flights within the RSZ observed in early October....fall flight volumes were greatest within the RSZ most nights during migration." (Section 12.2.3.3, pg. 216).

The proponent also reports that unfavorable weather conditions (e.g., rain and strong headwinds) led to higher proportions of targets within the RSZ, which may increase the risk of collision with turbines.

ECCC notes that the volume of birds found within the RSZ during radar monitoring, particularly in fall, warrants the need for additional measures to mitigate potential impacts to birds and bats during spring and fall migration periods when the project is operational. Based on the level of concern for the project (Category 4)(ECCC 2007, ECCC 2022), ECCC recommends that the proponent follow the precautionary principle and identify these measures as part of the EA commitments which will avoid impacts on migratory birds and bats *before* they occur (e.g. blade feathering, remote temporary shut downs based on weather conditions, peak migration periods and times), as well as, undertake post-construction monitoring and adaptive management plan(s) to monitor residual effects (ECCC 2022).

#### Section 15.0 Cumulative Effect

21. ECCC notes that there are several existing and proposed onshore wind projects in Colchester and Cumberland Counties that may have cumulative impacts on migratory birds. Of note, Higgins Mountain and Kmtnuk wind projects were approved by NSECC in 2023 and the construction and/or operation phases of these projects would overlap with Windy Ridge Wind Power project. These projects are all sited at high elevations that may pose higher risks to migratory birds, particularly in adverse weather conditions (e.g., fog, heavy rain, strong winds). If the project is approved, ECCC recommends that the proponent complete a postconstruction cumulative effects assessment that, in addition to post-construction mortality monitoring results from Windy Ridge Wind Power Project, considers postconstruction monitoring results at nearby wind energy sites. This assessment would provide an opportunity to better understand the cumulative impacts of these projects on migratory bird populations at a regional scale.

ECCC notes that there is little available data and associated studies on the latest larger scale turbine technologies and risk to migratory birds and bats.

#### Applicable Legislation and Standard Advice

#### Migratory Birds Convention Act

The federal *Migratory Birds Convention Act* (MBCA) and its <u>regulations</u> protect migratory birds and their eggs and prohibit the disturbance, damage, destruction or removal of migratory bird nests that contain a live bird or a viable egg. Migratory birds are protected at all times; all migratory bird nests are protected when they contain a live bird or viable egg; and the nests of 18 species listed in <u>Schedule 1 of the MBR 2022</u> are protected year-round. These general prohibitions apply to all lands and waters in Canada, regardless of ownership. For more information, please visit: <u>https://www.canada.ca/en/environment-climate-</u> <u>change/services/avoiding-harm-migratory-birds/reduce-risk-migratory-birds.html</u>

For migratory birds that are listed as Endangered, Threatened or Extirpated on Schedule 1 of the *Species at Risk Act* S.32 (protection of individuals) and S.33 (protection of residences) apply to all land tenure types in Canada. For some migratory bird species listed under the *Species at Risk Act* (SARA), the residence prohibition will protect nests that are not active but are re-used in subsequent years (please note that the residence of a migratory bird may not necessarily be limited to their nest).

Section 5.1 of the MBCA describes prohibitions related to depositing substances harmful to migratory birds:

"5.1 (1) No person or vessel shall deposit a substance that is harmful to migratory birds, or permit such a substance to be deposited, in waters or an area frequented by migratory birds or in a place from which the substance may enter such waters or such an area.

(2) No person or vessel shall deposit a substance to be deposited in any place if the substance, in combination with one or more substances, result in a substance – in waters or an area frequented by migratory birds or in a place from which it may enter such waters or such an area – that is harmful to migratory birds."

The proponent is responsible for ensuring that activities are managed to ensure compliance with the MBCA and associated regulations.

### <u>Species at Risk Act</u>

The <u>Species at Risk Act</u> (SARA) "General prohibitions" apply to this project. In applying the general prohibitions, the proponent, staff and contractors, should be aware that no person shall:

- kill, harm, harass, capture or take an individual;
- possess, collect, buy, sell or trade an individual, or any part or derivative;
- damage or destroy the residence of one or more individuals.

General prohibitions only apply automatically:

- on all federal lands in a province,
- to aquatic species anywhere they occur,
- to migratory birds protected under the Migratory Birds Convention Act (MBCA) 1994 anywhere they occur.

Section 33 of SARA prohibits damaging or destroying the residence of a listed threatened, endangered, or extirpated species. For migratory bird species at risk (SAR), this prohibition immediately applies on all lands or waters (federal, provincial, territorial and private) in which the species occurs.

ECCC notes that all comments it provides concerning species at risk that are not migratory birds derive from federal recovery/management plans as posted on the Species at Risk Registry (https://www.canada.ca/en/environment-climate-change/services/species-risk-public-registry.html), and thus comments may not be comprehensive to the body of knowledge for the species.

For species which are not listed under SARA but are listed under provincial legislation only or that have been assessed and designated by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC), it is best practice to consider these species in EA as though they were listed under SARA.

## Vegetation Clearing

Clearing vegetation may cause disturbance to migratory birds and inadvertently destroy their nests and eggs. Many species use trees, as well as brush, deadfalls and other low-lying vegetation for nesting, feeding, shelter and cover. This would apply to songbirds throughout the region and waterfowl in wetland areas. Disturbance of this nature would be most critical during the breeding period. The breeding season for most birds within the project area occurs between mid-April and late-August in this region, however some species protected under the MBCA do nest outside of this time period. Please see the webpage "Nesting Periods" (https://www.canada.ca/en/environment-climate-change/services/avoiding-harm-migratorybirds/general-nesting-periods/nesting-periods.html) for more specific information concerning the breeding times of migratory birds. This project area falls within zone "C3".

ECCC provides the following recommendations:

- The proponent is recommended to avoid certain activities, such as clearing, during the regional nesting period for migratory birds. The breeding season for most birds within the project area occurs between **mid-April and late August** in this region (see above website for more specific time periods by zone).
- Active nests can be discovered during project activities outside of the regional nesting period. To reduce the risk of impacting nests or birds caring for pre-fledged chicks at those times, ECCC recommends implementation of measures such as the establishment of vegetated buffer zones around nests, and minimization of activities, in the immediate area until nesting is complete and chicks have naturally migrated from the area. It is incumbent on the proponent to identify the best approach, based on the circumstances, to comply with the MBCA.
- The proponent should be cognizant that while most migratory bird species construct nests in trees (sometimes in tree cavities) and shrubs, mitigations should be appropriate for migratory birds with different strategies. For example, several species nest at ground level (e.g. Common Nighthawk, Killdeer, sandpipers), in hay fields, pastures or in burrows. Some bird species may nest on cliffs or in stockpiles of overburden material from mines or the banks of quarries. Some migratory birds (including certain waterfowl species) may nest in head ponds created by beaver dams. Some migratory birds (e.g. Barn Swallow, Cliff Swallow, Eastern Phoebe) may build their nests on structures such as bridges, ledges, or gutters.
- The proponent should develop and implement a management plan that includes appropriate preventative measures to minimize the risk of impacts on migratory birds (Please see 'Guidelines to reduce risk to migratory birds' at <u>https://www.canada.ca/en/environment-climate-change/services/avoiding-harmmigratory-birds/reduce-risk-migratory-birds.html</u>). For beneficial management practices regarding how to avoid the incidental take of migratory bird pests and eggs

practices regarding how to avoid the incidental take of migratory bird nests and eggs, please refer to the Avoidance Guidelines (Website:

https://www.canada.ca/en/environment-climate-change/services/avoiding-harmmigratory-birds/guidelines.html). The management plan should include processes to follow should an active nest be found at any time of the year.

#### <u>Fuel Leaks</u>

The proponent must ensure that all precautions are taken by the contractors to prevent fuel leaks from equipment, and that a contingency plan in case of oil spills is prepared. Furthermore, the proponent should ensure that contractors are aware that under the MBCA, "*no person shall deposit or permit to be deposited oil, oil wastes or any substance harmful to migratory birds in any waters or any area frequented by migratory birds.*" Biodegradable alternatives to petroleum-based chainsaw bar oil and hydraulic for heavy machinery are commonly available from major manufacturers. Such biodegradable fluids should be considered for use in place of petroleum products whenever possible, as a standard for best practices. Fueling and servicing of equipment should not take place within 30 meters of environmentally sensitive areas, including shorelines and wetlands. ECCC recommend incorporating a Wildlife Emergency Response Plan into emergency response contingency plans for scenarios that may impact avifauna directly (injury or mortality e.g. polluting incident) or indirectly (collisions causing mortality, stranding due to light attraction).

For consideration in emergency response and contingency planning related to accidents and malfunctions, ECCC has prepared *Guidelines for Effective Wildlife Response Plans* (ECCC <u>2022</u>) available online at: <u>https://www.canada.ca/en/services/environment/wildlife-plants-species/national-wildlife-emergency-framework.html</u>. Plans should include:

- Measures to deter migratory birds from coming into contact with the oil or polluting substance;
- Measures undertaken if individuals of migratory birds and/or sensitive habitat become contaminated; and,
- The type, extent of monitoring, and reporting in relation to various spill events.

The proponent is responsible for ensuring that all precautions are taken by the contractors to prevent fuel leaks from equipment, and that a contingency plan is prepared in the case of spills. Furthermore, the proponent should ensure that contractors are aware of s.5.1 MBCA prohibitions.

Events involving a polluting substance should be reported to the 24-hour environmental emergencies reporting system: **1-800-565-1633**.

Bird mortality incidents of 10 or more birds in a single event, or an individual species at risk, should be reported via ECCC-CWS Main Office **(506) 364-5044** or via email to <u>SCFATLEvaluationImpact-CWSATLImpactAssessment@ec.gc.ca</u>.

#### <u>Stockpiles</u>

Certain species of migratory birds (e.g., Bank Swallows) may nest in large piles of soil left unattended/ unvegetated during the most critical period of breeding season (mid-April through late August). To discourage this, the proponent should consider measures to cover or to deter birds from these large piles of unattended soil during the breeding season. If migratory birds take up occupancy of these piles, any industrial activities (including hydroseeding) will cause disturbance to these migratory birds and inadvertently cause the destruction of nests and eggs. Alternate measures will then need to be taken to reduce potential erosion, and to ensure that nests are protected until chicks have fledged and left the area. For a species such as Bank Swallow, the period when the nests would be considered active would include not only the time when birds are incubating eggs or taking care of flightless chicks, but also a period of time after chicks have learned to fly, because Bank Swallows return to their colony to roost.

For additional information on designing mitigation measures for Bank Swallow, refer to the following guidance: <u>https://www.canada.ca/en/environment-climate-</u> <u>change/services/species-risk-public-registry/related-information/bank-swallow-sandpits-</u>

### <u>quarries.html</u>.

### Revegetation

A variety of species of plants native to the general project area should be used in revegetation efforts. Should seed mixes for herbaceous native species for the area not be available, it should be ensured that plants used in revegetation efforts are not known to be invasive.

### <u>Noise Disturbance</u>

Anthropogenic noise produced by construction and human activity can have multiple impacts on birds, including causing stress responses, avoidance of certain important habitats, changes in foraging behavior and reproductive success, and interference with songs, calls, and communication. Activities that introduce loud and/or random noise into habitats with previously no to little levels of anthropogenic noise are particularly disruptive.

ECCC recommends the following best management practices:

- The proponent should develop mitigations for programs that introduce very loud and random noise disturbance (e.g., blasting programs) during the migratory bird breeding season for their region.
- The proponent should, where possible, prioritize construction works in areas away from natural vegetation while working during the migratory bird breeding season. Conducting loud construction works adjacent to natural vegetation should completed outside the migratory bird breeding season.
- The proponent should keep all construction equipment and vehicles in good working order and loud machinery should be muffled if possible.

## Light Attraction and Migratory Birds

Attraction to light at night or in poor visibility conditions during the day may result in collision with lit structures or their support structures, or with other migratory birds. Disoriented migratory birds are prone to circling light sources and may deplete their energy reserves and either die of exhaustion or be forced to land where they are at risk of depredation.

To reduce the risk of disturbance to migratory birds related to human-induced light, ECCC recommends implementation of the following beneficial management practices:

- The fewest number of site-illuminating light possible should be used in the project area. Only strobe lights should be used at night, at the lowest intensity and smallest number of flashes per minute allowable by Transport Canada.
- Lighting for the safety of the employees should be shielded down and only to where it is needed.
- LED lights should be used instead of other types of light where possible. LED light fixtures are less prone to light trespass (i.e., are better at directing light where it needs to be, and do not bleed light into the surrounding area), and this property reduces the incidence of migratory bird attraction.

#### Water Quality

Pollution prevention and control provisions of the Fisheries Act are administered and enforced by ECCC. Subsection 36(3) of the Fisheries Act prohibits "anyone from depositing or permitting the deposit of a deleterious substance of any type in water frequented by fish, or in any place under any conditions where the deleterious substance, or any other deleterious substance that results from the deposit of the deleterious substance, may enter such water".

It is the responsibility of the proponent to ensure that activities are managed so as to prevent the release of substances deleterious to fish. In general, compliance is determined at the last point of control of the substance before it enters waters frequented by fish, or, in any place under any conditions where a substance may enter such waters. Additional information on what constitutes a deposit under the Fisheries Act can be found here: <u>https://www.canada.ca/en/environment-climate-change/services/managing-</u> pollution/effluent-regulations-fisheries-act/frequently-asked-questions.html

#### Accidents and Malfunctions

Hazardous materials (e.g. fuels, lubricants, hydraulic oil) and wastes (e.g. waste oil) should be managed so as to minimize the risk of chronic and/or accidental releases. For example, the proponent should encourage contractors and staff to undertake refueling and maintenance activities on level terrain, at a suitable distance from environmentally sensitive areas including watercourses, and on a prepared impermeable surface with a collection system.

The proponent is encouraged to prepare contingency plans that reflect a consideration of potential accidents and malfunctions and that take into account site-specific conditions and sensitivities. The Canadian Standards Association publication, Emergency Preparedness and Response, CAN/CSA-Z731-03, reaffirmed 2014), is a useful reference.

All spills or leaks, such as those from machinery or storage tanks, should be promptly contained and cleaned up (sorbents and booms should be available for quick containment and recovery), and reported to the 24-hour environmental emergencies reporting system (Maritime Provinces 1-800-565-1633).

Please let me know if you have any questions regarding the above advice.

Regards,

#### Maryam Fazeli

Coordinator, Environmental Assessment, Environmental Protection Operations Directorate - Atlantic Environment and Climate Change Canada / Government of Canada <u>maryam.fazeli@ec.gc.ca</u> Coordinatrice, Évaluation environnementale, Direction des activités de protection de l'environnement Environnement et Changement climatique Canada / Gouvernement du Canada <u>maryam.fazeli@ec.gc.ca</u>

# Environment and Climate Change Canada's Canadian Wildlife Service (Atlantic Region) - Wind Energy & Birds Environmental Assessment Guidance Update

# Background

Environment and Climate Change Canada's Canadian Wildlife Service (ECCC-CWS) is charged with the administration of the *Migratory Birds Convention Act* (MBCA) and *Species at Risk Act* (SARA), responsible for the management and conservation of migratory birds and protection of SARA listed species at risk and their habitats; ECCC-CWS Atlantic (ATL) provides expert advice for these species for wind energy impact assessments, upon request. ECCC-CWS published two guidance documents in 2007 for assessing the risk of wind energy developments on migratory birds:

- Wind Turbines and Birds: A Guidance Document for Environmental Assessment" (Environment Canada 2007a)
- *Recommended Protocols for Monitoring Impacts of Wind Turbines on Birds*" (Environment Canada 2007b)

Recent advancements in technology for wind energy production include taller turbines with increased energy generating capacity. As a result, in 2018, ECCC-CWS-ATL provided an advice update related to radar and acoustic monitoring recommended for monitoring particular factors of concern (e.g. migration corridors, passage rate and flight altitudes of nocturnal migrants in relation to the height of proposed turbines – larger scale) (s.8.2 CWS 2007a and CWS2007b protocols).

ECCC-CWS-ATL has prepared this guidance update to replace the 2018 advice; this guidance update provides minimum standards and best approaches for pre- and post-construction monitoring related to wind energy developments in Atlantic Canada. It is incumbent on the proponent to identify the best approach, based on the circumstances, to comply with the *Migratory Birds Convention Act* and *Species at Risk Act*.

# Determining Site Sensitivity

ECCC-CWS-ATL recommends that wind energy sites proposing building turbines > 150m (thus placing turbine height places the rotor sweep within songbird nocturnal flight corridors (i.e., 150 – 600 m, Horton *et al.* 2016)) in total height be considered 'Very High' site sensitivity (i.e., Category 4, Environment Canada 2007a).

# Minimum Standard

#### Pre-Construction Monitoring

There is little available data and associated studies on the latest larger scale turbine technologies and risk to migratory birds. Therefore, proponents should assess the potential risk of Category 4 level sites to understand and characterize nocturnal avian flight paths around proposed sites. ECCC-CWS-ATL recommends using radar and acoustic monitoring during the spring and fall migrations, in addition to standard avian surveys (Environment Canada 2007a).

Although much of the bird migration is above turbine heights and rotor sweep areas, there are accounts of both songbird migration, and localized migratory bird population seasonal movements, occurring within the turbine altitudinal zone (Richardson 1972, Horton et al. 2016). Therefore, monitoring should also characterize potential

localized lower-level movements of birds. For example, Bank Swallows move between coastal bank colonies and inland roost sites; shorebirds move overland from foraging to roosting sites during pre-migration recruitment flights; sea ducks are low altitude nocturnal migrants.

The use of acoustic autonomous recording units (ARUs) complements radar data and can support conclusions in the final analysis. ARUs have a maximum detection distance of approximately 200-250m above ground level, similar to the height of proposed wind turbines and can assist in evaluating species composition of nocturnal migrants, especially important in understanding the potential risk to species at risk.

#### Study Design

ECCC-CWS-ATL recommends, at minimum, monitoring early in the project-planning phase (pre-construction) to ensure that the proponent completes a minimum of 2 years (consecutive) of monitoring. The 2-year minimum standard supports analyses of bird flight height by capturing the variance in weather conditions present. In addition, ECCC-CWS-ATL recommends pre-construction monitoring to quantify the risk at a proposed site **before** approval. This also provides baseline information to assess post-construction impacts and mortality on migratory bird populations. Data should be collected under various types of weather conditions.

Spring migration recommended monitoring window is **March 15 - June 7**, and fall migration is **July 15 – November 30**. These extended monitoring windows allow the proponent to assess landbirds, waterfowl/sea duck and shorebird migration movements, especially important in coastal areas or along known migration routes (e.g., Bay of Fundy, Tantramar Marsh, Strait of Canso, and Cape Sable Region).

The breeding season window in Atlantic Canada varies from region to region (i.e. nesting zones) which have corresponding nesting calendars showing variation in nesting intensity by habitat type. Information regarding regional nesting periods can be found at <u>ECCC's General Nesting Periods – Avoiding Harm To Migratory Birds</u>. Each site should be visited at least twice during this time to establish which species are breeding in the area and to determine if there are any migratory bird species at risk and/or species that have aerial mating displays.

If provincial regulatory processes do not require pre-construction monitoring, the proponent should initiate monitoring as soon as possible (for a minimum 2-year period). Although not ideal, monitoring could start during the construction year to assess impacts on migratory bird populations and determine the need for additional mitigation and/or inform future guidance.

#### Data Analysis

Data analysis guidance is available in the 2007 national guidance (Environment Canada 2007a, Environment Canada 2007b). ECCC-CWS-ATL recommends consolidating site-specific avian baseline and habitat assessment with radar and acoustic monitoring data into one report. In addition, this report should include and detail an overall assessment of the risk to migratory birds.

The report should include, at minimum, the following:

- o List of potential breeding birds (following breeding bird atlas protocols)
- o Volume estimates of birds (i.e. targets) at a fine scale of altitudinal resolution on a nightly basis;
- Altitudinal information;
- Time period monitored (note: monitoring should take place at the same time every day);
- o Weather data;
- o Tidal and lunar cycles (note: shorebird movements increase during bright nights);
- Summary of overall bird activity, including how bird activity:
  - o changed through the night and the season.
  - o changed across the study area.

#### Post-Construction Monitoring

ECCC-CWS-ATL recommends that post-construction mortality surveys (Environment Canada 2007b) and radar and acoustic monitoring <u>be consistent</u> with baseline pre-construction methods. The proponent (for any approved project) should complete a minimum of 2 years (consecutive) of monitoring. ECCC-CWS-ATL may recommend additional monitoring based on reported findings.

The mortality survey data should be paired with radar and acoustic monitoring to provide context for the localized impacts on birds. Additionally, the proponent should compare the pre-construction and post-construction results to assess and quantify any changes in migratory bird species assemblage, density, and behaviours.

Permits are required to handle or collect any dead birds or bats found during post-construction monitoring activities (e.g. carcass searches or used as part of observer efficiency or scavenging trials) (ECCC, s.10.4 2007). Under the Migratory Bird Regulations, a scientific permit is required for the collection of a migratory bird (dead or alive), feathers, or part of a migratory bird, as defined in the MBCA (contact: <u>Permi.Atl@ec.gc.ca</u>). Proponents should also contact the appropriate provincial territorial wildlife department for information related to requirement to collect species under provincial jurisdiction (bats and bird species such as raptors not covered by the MBCA). Proponents should review and carefully note the conditions in permits, including annual reporting and mortality incident reporting. Proponents will need to ensure they remain in compliance with all permitting conditions and requirements.

# Data and Report Submission

Please provide ECC-CWS-ATL with the monitoring reports. Reports must be provided to CWS by December 31 of the same calendar year in which monitoring took place. Submit reports ECCC's environmental assessment window for coordination at: FCR\_Tracker@ec.gc.ca.

ECCC-CWS-ATL recommends that the proponent submit all wind energy monitoring (migratory birds and bats) data to the <u>Wind Energy Bird & Bat Monitoring Database</u> (Birds Canada 2022). The proponent should retain raw data (e.g., information on individual tracks) until appropriate data standards have been developed.

## Best Approach

ECCC-CWS-ATL considers the best approach to be a regional BACI (Before-After/Control Impact) study design (i.e., paired-site design) or an impact-gradient design for smaller developments. The BACI design is designed to help isolate the potential effect of development from natural variability. Proposed turbine sites should be paired with similar reference sites to provide comparative assessments. This comparative site assessment should compare bird density, flight height variance/altitude levels, activity patterns, timing, consistency of movements, habitat variables between control (reference) and treatment (turbines) sites during the breeding period and during migration. Data should be collected under various types of weather conditions.

Reference sites should be located at minimum 500m from proposed turbine sites. These reference sites should be placed in habitats similar to the paired turbine site. ECCC-CWS-ATL recommends that this approach be factored into the pre-construction and post-construction monitoring designs. All study design recommendations presented above should be used for this approach (e.g., pre-construction monitoring should be completed before site approval, be done for two years, etc.). Additionally, all sampling considerations (e.g., migration timing windows, data collection, reporting) should be consistent with the minimum standard.

#### Bats

Little Brown Myotis (*Myotis lucifugus*), Northern Myotis (*Myotis septentrionalis*), and Tri-colored Bat (*Perimyotis subflavus*) are small, insectivorous bats that are listed as Endangered (Species at Risk Act, Schedule 1). ECCC-CWS-ATL recommends that the proponents consider bats in their pre-construction and post-construction monitoring and their data and report submissions. However, the proponent should contact Provincial representatives for additional information on bats and wind energy developments, as they are the jurisdiction responsible for the conservation and protection of bat species.

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# Agriculture

Date:	June 25, 2024
То:	Kelly Maher, Environmental Assessment Officer
From:	Heather Hughes, Executive Director, Policy and Corporate Services, Nova Scotia Department of Agriculture
Subject:	Windy Ridge Wind Power Project Colchester County, Nova Scotia

Thank you for the opportunity to review the documents for the above-noted project.

No agricultural impacts are anticipated given that:

- The proposed project area is located on class 7 land, which is unsuitable for agriculture.
- The closest registered farm is approximately 3 km away from the nearest wind turbine.
- The closest suitable agricultural land is approximately 2 km away from the nearest wind turbine.



J.W. Johnston Building 1672 Granville Street 6<sup>th</sup> Floor Halifax, Nova Scotia Canada B3J 2N2

Subject:	Windy Ridge Wind Power Project		
From:	Department of Public Works, Environmental Services – Jason Rae, Manager.	, P.Eng.	C
То:	Kelly Maher, Environmental Assessment Officer	$1 \oplus$	1
Date:	June 20 2024		

#### Scope of review:

This review focuses on the following mandate: Traffic Engineering and Road Safety

## List of Documents Reviewed:

Windy Ridge Wind Power Project

#### **Details of Technical Review:**

The proponent is proposing an onshore wind farm of 49 wind turbines, as well as access roads and other associated infrastructure on mainly private and Crown-owned lands near Debert.

- Table 1.2 Summary of Regulatory Permits, Approvals and Notifications (Page 7) identifies required permits of Special Moves and Working Within Highway Right of Way which will be required for the transportation of turbine components and any new accesses for this project. The proponent must also mention the Nova Scotia Temporary Workplace Traffic Control Manual, as the proponent must comply to the appropriate section should any workplaces be required on provincially owned roads.
- 2. With regards to Special Moves Permits, the proponent has identified turbine quantities and specifications in the report, including setback distances for public roads (identified in Table 2.1 (Page 11), as well as a general reference to the Routing Plan. The specific routing plan must be finalized so that it can be analyzed in terms of clearances on underpasses and other structures, weights on overpasses and other structures, turn radii for trucks, etc. To finalize all these processes and requirements, the proponent must reach out to our Departmental Contact for Special Moves, Darcey MacBain, to identify next steps in the process, in terms of required information. He can be reached at Darcey.MacBain@novascotia.ca

- 3. Section 13.3.2.5 Transportation states "It is anticipated that there will be traffic interruptions as a result of increased road usage" (on Highway 104, Trunk 4 and Route 246). The development of the Traffic Management Plan for this purpose is critical. These traffic interruptions should be minimized and communicated to the public. The communication mentioned in the mitigation measures proposed on page 251 must also include the local Department of Public Works Area Office, in addition to those stated for the RCMP and the Public.
- 4. There is a Traffic Impact Analysis (summarized in Table 13.5) that shows Expected Traffic Increase Per Day During Peak Construction for Highway 104, Trunk 4, Route 246, and Plains Road. While the low volumes on Route 246 and Plains Road inflates the truck percentage increase relative to the existing volume, the proponent has indicated this to be a worst-case scenario using the one access currently available. There is proposed mitigation to investigate additional accesses off of Trunk 4 (beyond the existing one on Route 246), such as Axe Handle Factory Road, Plains Road, as well as private roads, so that the impacts identified can be spread over several accesses and therefore minimized. These additional accesses must be identified and be given priority so that any traffic impacts are minimized.
- 5. The additional accesses identified above must be coordinated as required through the local Area Office (through the Area Manager) as necessary through the Working Within Highway Right of Way Permit so that any issues regarding sight lines, signage, traffic control on any intersections with provincially owned roads can be identified and mitigated, as necessary.
- 6. There is reference to potential impacts on a portion of Trunk 4 that is shared by the Blue Route between Masstown and Wallace. The mitigation measures mentioned on Page 252-253 with regards to the communication with the Trails Group and other Stakeholders should be implemented as stated.
- 7. With regards to Road Safety, the proposed mitigation measures mentioned with regards to accident prevention in Section 18.1 Transportation Related Accidents Mitigation Measures (Page 291) must implemented as stated.

## **Key Considerations:**

- 1. The proponent must comply with the Nova Scotia Temporary Workplace Traffic Control Manual.
- 2. The specific routing plan must be finalized through the Special Moves Permit.
- 3. The proponent is to make all efforts to minimize impact to traffic.

Date:	June 25, 2024
То:	Kelly Maher, Environmental Assessment Officer
From:	Melissa Ginn Regional Environmental Advisor Transport Canada Environmental Programs and Indigenous Relations

Subject: Windy Ridge Wind Power, Colchester County, Nova Scotia

#### Scope of review:

This review focuses on the following mandate:

#### Transport Canada

- Aeronautics Act
- Canadian Navigable Waters Act (CNWA)

#### List of Documents Reviewed:

EA Registration Document

#### **Details of Technical Review:**

Review for potential requirements under the two Acts listed above.

#### Key Considerations: (provide in non-technical language)

Based on Table 1.2 Summary of Regulatory Permits, Approvals and Notifications of the EA Registration document, the proponent appears to be aware of their requirements under the two above-mentioned Acts. However, we've included the below information again for certainty:

The Proponent will need to complete an Aeronautical Assessment Form (AAF) regarding the wind turbines, to assess for marking and lighting requirements as per:

Standard 621 - Obstruction Marking and Lighting - Canadian Aviation Regulations (CARs) (<u>https://tc.canada.ca/en/corporate-services/acts-regulations/list-regulations/canadian-aviation-regulations-sor-96-433/standards/standard-621-obstruction-marking-lighting-canadian-aviation-aviation-regulations-cars</u>).

The AAF is located in *Appendix C - Aeronautical Assessment Form for Obstruction Marking and Lighting* (Form 26-0427E).

Once the AAF information has been completed, please forward to: aviation.atl@tc.gc.ca.

The following additional information from Transport Canada's Navigation Protection Program can be provided to the Proponent or their consultant:

The watercourse crossings implicated by the proposed transmission line and access road components of the project do not appear to involve Scheduled waterways under the *Canadian Navigable Waters Act.* 

The proponent can assess the individual transmission line watercourse crossings against the criteria in the *Minor Works Order* (Section 16 – Aerial Cables -Power and Telecommunication) AND can assess the individual access road watercourse crossings against the criteria in the *Minor Works Order* (Section 34 – Watercourse Crossings):

#### **Minor Works Order**

https://laws.justice.gc.ca/eng/regulations/SOR-2021-170/index.html

IF a specific transmission line or access road watercourse crossing meets ALL the criteria in the relevant section, they are considered Minor Works and do not require a *Canadian Navigable Waters Act* approval and would only be required to follow the Deposit and Publication requirements in sections 3(2), 3(3) and 4 of the Minor Works Order.

IF a specific transmission line watercourse crossing or access road crossing does NOT meet ALL the criteria, the proponent may be required to submit an application for approval.

Under the Canadian Navigable Waters Act (CNWA), owners of works – (other than a minor work or a major work) - that are <u>located on navigable waterways not listed in the schedule</u>, which may interfere with navigation, have the option to:

1. either apply to the Minister of Transport; (approval review process and advertising and 30 day registry public review)

or

2. seek authorization through the public resolution process, and deposit specific information regarding their work on the new Common Project Search (online registry) inviting any interested party to comment. (advertising and 30 day registry public review)

Both the application process and the public resolution process on the Registry can be accessed at the following link:

External Submission Site for the Navigation Protection Program (create an account first if needed)

Additional guidance information and links for the NPP regulatory process can be found here:

Canadian Navigable Waters Act https://www.tc.gc.ca/eng/programs-632.html

https://www.tc.gc.ca/eng/canadian-navigable-waters-act.html

Navigation Protection Program, Transport Canada <u>http://www.tc.gc.ca/eng/programs-621.html</u>

NPP Contact coordinates: Navigation Protection Program | Programme de protection de la navigation

Transport Canada - Atlantic Region / Heritage Court, 6<sup>th</sup> Floor, 95 Foundry Street, Moncton, N.B. E1C 5H7 | Transports Canada - Région de l'Atlantique / Place Héritage, 6<sup>e</sup> étage - 95 rue Foundry, Moncton, N.-B. E1C 5H7 Tel | Tél. : 506-851-3113 / Fax | Téléc. : 506-851-7542 **Email / Courriel** : NPPATL-PPNATL@tc.gc.ca



Date:	June 25, 2024
То:	Kelly Maher, Environmental Assessment Officer
From:	Water Branch - Krysta Montreuil, Acting Director
Subject:	Windy Ridge Wind Project, Wentworth, Colchester County, Nova Scotia

#### Scope of review:

This review focuses on the following mandate: surface water quality and quantity, groundwater quality and quantity, and wetlands.

**List of Documents Reviewed:** Environmental Assessment Registration Document (EARD) Submission, including Appendices.

#### **Details of Technical Review:**

#### Surface Water

The project outlines 150 km of access road as a project component, including 116 km of existing gravel or paved roads, most of which will require upgrades. Newly constructed roads represent 34 km of the 150 km total. The project also includes development of a new 10 km transmission line. The Potential Development Area is reported as 1,468 ha. The submission outlines that "Specific requirements for ditching, culverts, and bridge installation/repairs will be determined during detailed Project design to meet industry standards." It is stated that 755 watercourse assessments were completed to support assessment of impacts to aquatic environments, of which 254 were classified as "No Channel", meaning no indication of water, scour, or directed flow path.

Generally speaking, the submission provides sufficient detail in the assessment of impacts and proposed mitigations. The scale of potential fish habitat loss associated with the project (e.g., a total estimated area) is not clearly outlined, only that restoration and offsetting will occur as required by regulatory permitting. Also, the construction of roads has the potential to alter natural drainage patterns if not mitigated through the installation of cross-drain culverts or otherwise. Based on the information provided in Section 7 of the EARD, it is currently unclear whether this component has been assessed, or what the approach to mitigating this concern would be. Finally, information surrounding the plan for the development of the 10 km transmission line is not detailed – it is unclear what specific considerations and potential impacts are associated with this component of the project.

#### **Groundwater**

Changes in groundwater quantity and/or quality were identified in the EARD as potential impacts associated with the project. In general, the proponent's proposed mitigations should reduce the potential for impacts on groundwater quality and quantity.

According to the EARD, blasting may be necessary at select locations during road construction and a pre-blast water well survey will be conducted at 51 wells within 800 m of the blasting sites. Additional mitigation measures were presented, including avoiding blasting near residential areas where possible, using existing bedrock monitoring wells to detect changes in groundwater quantity and quality, and developing and implementing a Complaint Resolution Plan. The EARD also indicates that an alternative water supply will be provided to the landowner if demonstratable changes in groundwater quantity and/or quality are detected.

## Wetlands

The Proponent did a sufficient job at delineating and assessing wetlands within the PDA. The EARD provides a thorough and comprehensive overview of wetland mitigations that will be deployed during the construction and monitoring phases of the Project.

The Proponent describes that avoiding wetlands was done where possible. In Table 9.4 and 9.5, 14 identified Wetlands of Special Significance (WSS) could be directly impacted within the PDA. These WSS are not identified in the figures making it challenging to validate the Proponent's findings.

#### Key Considerations: (provide in non-technical language)

#### Surface Water

The main NSECC regulatory touch point on the construction of the access roads moving forward will be watercourse alterations. A detailed description of the plan to develop the 10 km transmission line and a detailed surface water monitoring plan (including the components outlined in Section 7.4 of the submission) should be included within the surface water management plan.

#### **Groundwater**

The proponent's proposed mitigations should reduce the potential for impacts on groundwater quality and quantity.

#### **Wetlands**

During the wetland alteration application phase, it is recommended that figures be included with submissions showing the locations of WSS.



Subject:	Windy Ridge Wind Power, Colchester County, Nova Scotia
From:	Department of Natural Resources and Renewables
То:	Kelly Maher, Environmental Assessment Officer
Date:	June 25, 2024

#### Scope of review:

This review focuses on the following mandate: authorities and approvals required from the Land Services Branch, geoscience health and safety, mineral exploration, mineral development, critical minerals, abandoned mines, biodiversity, species at risk status and recovery, wildlife species and habitat management and conservation, including Old Growth Forest, business investment and export development.

## List of Documents Reviewed:

## Geoscience and Mines Branch:

- Windy Ridge Wind Power Project E.A. document

   Appendix A Part 1 through 7
- 2. NS Mineral Occurrence Database
- 3. Nova Scotia's Critical Minerals Strategy
- 4. Google Earth
- 5. NovaROC: Mineral Rights Online Registry System
- 6. GeoNova portal
- 7. Nova Scotia Geoscience Atlas
- 8. https://novascotia.ca/natr/meb/maps/
  - a. MacHattie, T.G. 2011: in Mineral Resources Branch, Report of Activities 2010; Nova Scotia Department of Natural Resources, Report ME 2011-1, p. 75-92
  - b. Open File Illustration ME 2013-016
  - c. AR\_ME\_1980-009

# Land Services Branch:

- 1. Environmental Assessment Registration Document
- 2. Appendix A
- 3. GIS shapefiles

# **Details of Technical Review:**

# Forestry and Wildlife Branch:

# <u>General</u>

Table 1.2, page 7. It should be noted that under the Nova Scotia Endangered Species Act (NS ESA), a permit for an exemption from prohibitions against harm, harassment, or disturbance for Endangered and Threatened species or habitat is only possible under strict requirements relating to research in support of recovery or human health and safety.

Requirements surrounding species at risk are separate from those of Wetlands of Special Significance; a wetland alteration permit does not relieve the proponent of responsibility to follow the legislative requirements governing wildlife and species at risk.

Location of Species at Risk (SAR) and Species of Conservation Concern (SoCC) have not been provided in figures in the EARD in relation to habitat features, modelled potential habitat (where applicable), or project infrastructure. Mapped Valued Components (VCs) in relation to project infrastructure are required to evaluate project impacts.

Use of the terms "extent feasible", "where possible", or "will be considered" in mitigation approaches (e.g., "vegetated buffers around wetlands and watercourses will be maintained to support connectivity for wildlife where possible") does not support definitive measures to mitigate against adverse effects, creating uncertainty around approaches. Mitigation measures proposed for SAR, SoCC, biodiversity, wildlife, and habitats are generally lacking in detail due to either incomplete surveys; changes in project layout and design since survey programs were implemented; final layout uncertainty (e.g., road access); or micrositing of infrastructure not being finalized at the time of the EARD submission. Micrositing is mentioned as a mitigation approach for all flora and fauna VCs, however, it is unclear how this approach will mitigate against potential impacts to species and habitat and requires further explanation. Mitigation approaches will need to be developed further as part of the Environmental Protection Plan (EPP) and Wildlife Management Plan (WMP).

# Section 8 Flora

Section 8.1.2.1 Field Surveys (p. 124). Dedicated surveys for lichens were not completed. It is unclear how surveys were conducted for lichens over the Local Area of Assessment (LAA) and Project Development Area (PDA), with the exception of Eastern Waterfan (*Peltigera hydrothyria*), which were surveyed as part of other flora, lichen, and Wood Turtle surveys. A provincially approved lichenologist was not used for targeted Eastern Waterfan surveys as well as other lichen surveys, which is a requirement under the provincial At-Risk Lichens Special Management Practices (SMP). It is unclear if Eastern Waterfan habitat mapping (p. 124, Figure 8.4) was used to support survey efforts or developed after the field season (refer to the statement *"This map will be used to target additional field surveys during the detailed design phase where Project infrastructure may overlap identified suitable habitat."*). Implications with respect to

incomplete surveys include restrictions associated with compliance to the At-Risk Lichens SMP, as well as prohibitions under the NS ESA. Additional surveys by a provincially approved lichenologist are required.

Section 8.2.2 Vascular and Non-vascular Flora (p. 119). Eastern White Cedar (*Thuja occidentalis*) was discovered in what the proponent considered non-suitable habitat for the species and assumed it was introduced. The NS ESA does not distinguish between introduced or naturally occurring individuals with respect to listing or protection.

Section 8.2.2 Vascular and Non-vascular Flora (p. 119). Although it was stated that two occurrences for Black Ash (Fraxinus nigra) were within the Local Area of Assessment LAA and over 1 km from project infrastructure, this was contradicted by section 9.5, which indicated the presence of Black Ash, associated with wetland labelled WL-DEB-319 and within the PDA. This wetland is located less than 60 m from the center of the road. Further mitigations may be required as details on road upgrade plans are developed and provided to NRR.

## Section 10 Terrestrial Wildlife

Section 10.2.2 Turtles and Other Herpetofauna (p. 164). Eastern Painted Turtle (*Chrysemys picta*) has been stated as associated with the Debert river 5km south of the PDA. Two observations of Eastern Painted Turtle occurred within 1km of access roads used for the project, one being roughly 100m from the road centre line. Further details on road upgrade plans are required to assess potential impacts.

Section 10.3.2.1 Habitat Loss and Fragmentation (p. 170). It is unclear what the proponent means by *"turbines will be oriented to avoid severing or intersecting intact forest or natural habitat linkages wherever possible"*. This should be clarified as part of mitigations in support of the EPP and/or WMP.

Section 10.3.2.1.1 Proposed Moose Corridor (p.171). The moose corridor as proposed does not mitigate concerns around new road construction, road upgrades, habitat fragmentation, or increased transmission risk for *P. tenuis*, in the entire project area, all of which are listed as threats to Mainland Moose in the recovery plan. The proposed construction of a moose corridor also requires close collaboration with the province and other organizations and may not develop as anticipated. As a result, the proposal of the large-scale collaborative conservation corridor post-construction does not constitute mitigation on its own. Data and modelling should be used as part of habitat conservation and enhancement efforts in the project area and proposed corridor to support recovery efforts in advance of infrastructure planning and placement. Increased monitoring via surveys during and post-construction can help to assess potential impacts of habitat fragmentation (see below under Key Considerations for survey-related recommendations).

Section 10.3.2.3 Disruption of Life History (p. 171-175). The proponent describes in detail impacts of road density to Mainland Moose. Road density in Cumberland/Colchester exceeds the threshold identified in the provincial recovery plan while supporting the highest density of moose in the province. Appropriate mitigations for increasing road density are required because the potential negative impact of road density is not

superseded by the factors driving higher moose density in that area of the province. Increasing road density in the PDA could result in increased pressure on Mainland Moose. Upgrades to existing forestry roads could change these road networks from corridors to barriers to movement or increase access of areas to deer, recreational activities, or poaching.

## Section 11 Bats

Section 11.2.2 Bat Habitat (p. 188). A preliminary assessment of two abandoned mine openings within the LAA indicated they were likely not suitable habitat. It is unclear how this determination was made and where these openings are located in relation to project infrastructure. As an interior inspection was not conducted due to health and safety reasons, Autonomous Recording Unit (ARUs) should be placed at the two abandoned mine openings to assess presence/absence of bats at these locations.

## Section 12 Birds

Section 12.1.2.1 SAR Bird Habitat Modelling (p. 200-205). It is unclear what is meant by "site" when defining parameters for bird habitat modelling. Modelling does not appear to have been used to inform survey efforts. The amount of potential suitable habitat for some of the modelled SAR species is extensive (Figures 12.10-12.17) and could be refined using observation records (AC CDC), citizen science, field surveys associated with the EARD) and then used to support targeted mitigation approaches, as well as inform future projects. Without being field validated, modelling cannot be used as the sole source for developing mitigation measures.

Section 12.1.2.2 Field Surveys (p. 205-206). Radar and acoustic surveys were conducted for the spring and fall migratory periods for one field season (2023); recommended guidance is for two consecutive years of radar and acoustic surveys with at least one year of surveys completed prior to construction. Although the full spring migratory period was not captured during the course of the 2023 survey season, justifications for the shortened season were provided and are satisfactory, and survey results (Appendix J, Figure 3.1) indicate that peak migration was captured during the shortened spring survey period.

Section 12.1.2.2 Field Surveys (p. 206). Survey effort should cover all potential habitat present within the project area, as well as sufficient coverage of the project infrastructure. It is unclear from the data presented whether adequate coverage of available habitat was met.

Section 12.1.2.2 Field Surveys (p. 207). Gaps in survey coverage exist for Nightjar surveys (Figure 12.8). Additional surveys are required unless the assumption is made that in the absence of appropriate surveys, the species is present, and mitigations apply.

Section 12.2.3.3 Radar Monitoring (and Appendix J):

 Flight patterns for nocturnal migrants may vary with wind speed and direction, temperature, and time of night, all consistent with data presented in this section (p. 214-215, p. 222) and Appendix J. However, the proponent has not properly addressed results of Appendix J showing high volumes of migrating birds through the Rotor Sweep Zone (RSZ) for the fall migratory period (Figures 3.2, 3.5, 3.8). Over 40% of total detections were within the rotor-swept zones (RSZ) (p. 31, Appendix J). Mitigations are required in terms of adaptive management during the operation stage of the project. Radar data is also consistent with publicly available data and results for another project in the vicinity of Windy Ridge, Westchester Wind Project (Natural Forces Developments LP 2023), where authors drew similar conclusions concerning flight altitude due to topography. Potential impacts to what the author described as large volumes of migratory birds passing through the radio mandatory zones (RMZ) for multiple wind energy projects in the region does not appear to have been carried forward to the cumulative effect's assessment (section 15).

Results from radar and acoustic monitoring indicated the presence of two species at risk: Common Nighthawk and Canada Warbler. Survey results attributed almost 70% of calls during the spring migration period to Common Nighthawk (Table 3.2 of Appendix J). Common Nighthawk were also present during the breeding season in the PDA as determined through nightjar surveys, indicating that suitable foraging and/or breeding habitat is likely present (p. 30, Appendix J). Recommendations under section 6.0 of Appendix J do not mention regulatory protections for both Common Nighthawk and Canada Warbler under the ESA (listed as Threatened and Endangered, respectively), which is a separate legal requirement from *Species At Risk Act* (SARA). Mitigation measures specific to Common Nighthawk and Canada Warbler have not been provided and will be required as part of the EPP and WMP.

Section 12.3.2.2 Direct Mortality and Injury (p. 224). Bird mortality incidents of 10 or more birds in a single event, or of an individual SAR, will be reported to ECCC and NSDNRR within 24 hours of the incident occurring. This should be addressed in the communication protocol as part of the WMP.

## **15 Cumulative Effects**

Section 15.3.2 Potential Cumulative Effects and Mitigation (p. 273-274, 276-278). The cumulative effects assessment for biodiversity VCs (Table 15.1 and following sections on rationale) does not appear to have clear guidance around how project contribution to cumulative effects and potential degree of overall cumulative interaction were determined. Four (4) operational or planned wind farms totaling a potential 98 turbines within a 44 km radius will likely impact migratory species of bats and birds, making it unclear if a "low" cumulative interaction ranking is warranted. Further studies, analysis of available data, and mitigations are required.

## 16 Summary of Potential Environmental Effects

SAR should be evaluated as a separate VC (Table 16.1 p. 282-283) given their at-risk status as well as their regulatory requirements. Evaluation as part of flora, terrestrial wildlife, bat, and bird VCs does not provide an adequate assessment of risk and how mitigations address project impacts.

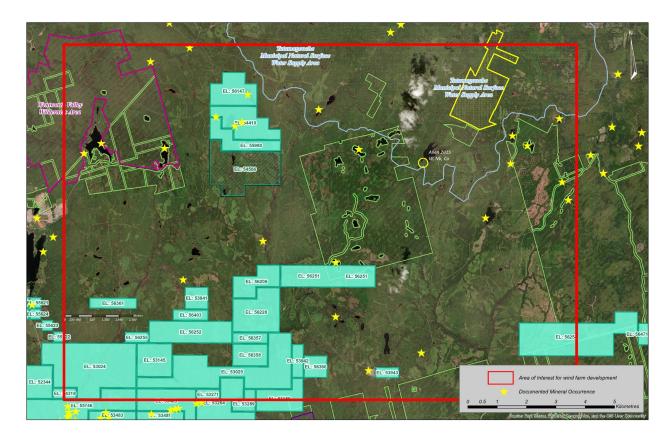
## Geoscience and Mines Branch:

## Minerals -

Occurrences

While the application noted several commodities found in the Project area, it did not incorporate the only known rare earth elements (REE) prospect in the province. The Debert Lake REE Prospect is located just east of Big Snare Lake and within 300-400 m of the proposed turbine locations T16 & T14. Rare earth elements are listed on both the Nova Scotia and Canada Critical Minerals Lists; the primary uses of which include permanent magnets in electric motors and wind turbines.

Within the northeastern margins of the project area, there are several gold and arsenic occurrences within the host volcanics. While these occurrences are currently within the boundary of Mineral Closure C000200, see https://novaroc.novascotia.ca/novaroc/), there is potential for elevated arsenic levels and additional gold occurrences in the project area. In addition, several occurrences exist near the southern border of the project area and are related to historic iron producers (Londonderry) and the prospect of Iron oxide copper gold ore deposits (IOCG) along the Cobequid-Chedabucto Fault Zone (CCFZ) and secondary fault structures.



## Exploration

The nearest staked claims are found within the proposed project area. In the central portion of the proposed footprint, four exploration licences corresponding to the Debert Lake REE prospect could be affected by this proposed project. In addition, several claims exist near the southern border of the project area and are related to historic iron producers (Londonderry) and the prospect of iron oxide copper gold ore deposits (IOCG) along the abovementioned CCFZ, a major and economically significant fault boundary in the province.

## Geology

 The geological characterization of the proposed site requires further details (i.e. Item 6 – Geophysical Environment, Section 6.2.2 "Bedrock and Soils").

Notably, the Proponent failed to identify several known uranium mineral occurrences within the footprint of the proposed development, based on historical mineral exploration data and reporting (e.g., Open File Illustration ME 2013-016, AR\_ME\_1980-009, Mineral Occurrence Database) including:

- $_{\odot}$  Juniper Lake U Occurrence (E11-025), ~ 700 m west of T1 and T2
- Folly Lake U Occurrence (E12-013), ~ 3.7 west-northwest km west of T28, T29, T30 and T31 and;
- Westchester Station U Occurrence (E12-020) ~14 km west of project area.

There exists potential for additional uranium bearing occurrences in the project area.

The EA application noted that the Proponent will consult with NSECC regarding acid generating potential and that sulphide analysis was ongoing at the time of submission (p.82). The Proponent further noted that response and mitigation measures to control acid rock exposure would be described in a Project-specific EPP.

## Historic mining

• As noted in Figure 15.1 of the project document, there has been historical mining and abandoned mines in the area.

# Land Services Branch:

The Proponent will require authorizations (such as a lease, licence, letter of authority, or easement) from NRR for any activity on Crown lands including:

- Erecting, operating, maintaining, and decommissioning wind turbines and related infrastructure;
- Temporary use and access of the land, such as requests to temporarily use existing Crown owned roads, install meteorological (MET) towers, or to conduct geotechnical investigations;

- Installing and maintaining overhead/underground transmission wires and collector lines, including for submerged Crown lands;
- Requests to construct and use new access roads, or to widen or otherwise modify existing Crown roads.

Note: requests to use existing NSPI or Bell owned infrastructure located on Crown lands must be directed to the owner of the utility infrastructure.

# Key Considerations: (provide in non-technical language)

# Subsurface Energy Development Branch:

Windy Ridge is one of three onshore wind projects that EverWind Fuels has acquired to supply early phase renewable energy to produce green hydrogen and ammonia primarily for an export market. EverWind also identified new wind projects associated with the development of hydrogen are necessary to meet the European Union standards and definition of green hydrogen.

The development of these export focused green hydrogen projects can be a catalyst for Nova Scotia to build a domestic market that would contribute to de-carbonization. The Province's Green Hydrogen Action Plan recognizes that green hydrogen projects will make the best use of the Province's natural resources and support sustainable prosperity and the achievement of Nova Scotia's climate change goals.

# Forestry and Wildlife Branch:

Based upon a review of the information provided in the EARD, the following recommendations for conditions of approval are provided:

- Obtain all necessary permits to undertake the project as required under legislation related to wildlife, species at risk, watercourses and wildlife habitat alterations.
- Provide digital way points and/or shapefiles for all flora and fauna surveys, including for Species at Risk and Species of Conservation Concern to NRR (those species listed and/or assessed as at risk under the *Species at Risk Act*, *Endangered Species Act*, COSEWIC, as well as all S1, S2 and S3 species). Data should adhere to the format prescribed in the NRR Template for Species Submissions for EAs and is to be provided within two (2) months of collection.
- Develop a Wildlife Management Plan (WMP) in consultation with NRR and ECCC which shall include:
  - Communication protocol with regulatory agencies;
  - o General wildlife concerns (e.g., human-wildlife conflict avoidance);
  - Education sessions and materials for project personnel on Species at Risk, non-Species at Risk wildlife, and other important biodiversity features they

may encounter on-site and how to appropriately respond to those encounters.

- Noise, dust, and lighting mitigations;
- Measures to protect and mitigate against adverse effects to migratory birds during construction and operation. The incidental removal of breeding birds, as well as their nests and/or eggs, is not permitted under the *Migratory Birds Convention Act* and the *NS Wildlife Act*. This may require avoidance of certain activities (such as vegetation clearing) during the regional nesting period for most birds, buffer zones around discovered nests, limiting activities during the breeding season around active nests, and other best management practices.
- Mitigation measures consistent with recovery documents (federal and/or provincial recovery and management plans, COSEWIC status reports) to avoid and/or protect Species at Risk/Species of Conservation Concern discovered or with the potential to be found in the Study Area.
- Details on monitoring and inspections to assess compliance with the WMP.
- Revegetate cleared areas using native vegetation or seed sources following consultation with NRR.
- Develop a plan to prevent the spread of invasive species both on and off site in consultation with NRR. The plan should include monitoring, reporting, and adaptive management components.
- Develop a monitoring program to assess mortality for birds and bats in consultation with NRR and ECCC and implemented for a minimum of two (2) years post-construction during the operation stage of the project. Guidance on monitoring requirements will be provided by NRR. Reporting of the results of the monitoring program shall be on an annual basis to the appropriate regulatory agencies. Pending review of results of the monitoring program, additional monitoring or mitigation measures may be required.
- Engage with NRR and ECCC to develop an adaptive management plan to inform decision-making related to adverse effects of the project on migratory bird and bat species. Additional surveys or mitigations may be required following a review of the effectiveness of the plan.
- Describe the impacts of the project on landscape-level connectivity for wildlife and habitat (e.g., habitat fragmentation, loss of intact forested habitat, increased road density). Include an assessment of the cumulative effects of the project on landscape-level connectivity and habitat loss, and the measures proposed to mitigate those effects.

The following additional surveys are recommended prior to construction (where feasible), prior to operation, or during operation:

- One full year of bat surveys at the two abandoned mine opening (AMO) locations identified as potential habitat within the EARD, to assess potential suitability for maternity colonies or hibernacula. Pending results of the survey, mitigations may be required;
- Additional Nightjar surveys for infrastructure locations in the northern section of the PDA not previous surveyed;

- Eastern Waterfan surveys, conducted by a provincially approved lichenologist in accordance with At-Risk Lichens Special Management Practices. Targeted surveys for Eastern Waterfan should be undertaken for the watercourse identified as critical habitat where it overlaps with the PDA. Detailed road upgrade plans for the crossing at this location should be provided prior to any construction occurring. The proponent should complete surveys for Eastern Waterfan and other lichen species in all areas where the project footprint overlaps with potential suitable lichen habitat for species identified in the At-Risk Lichens SMP.
- As the proposed work is within identified Mainland Moose Core Habitat, conduct surveys for Mainland Moose for a minimum of two (2) years during the operation phase of the project, in a buffered zone of influence extending up to two (2) kms from the project footprint, in order to assess potential effects of disturbance.

## **Geoscience and Mines Branch:**

- Under previous Terms and Conditions used for wind projects, we suggest changing the wording for the following Sections under <u>*Water Resources*</u> to the following:
  - For areas where projects are within known uranium mineralization, the Approval Holder will provide a geotechnical summary that clearly identifies and describes the presence of arsenic and uranium in the project area and develop an avoidance and mitigation plan. This is to be submitted to ECC and NRR-GMB for approval before the start of construction can commence. Please refer to Canadian Council of Ministers of the Environment (CCME) Guidelines concentrations of uranium and arsenic when preparing.
  - Prior to any construction work commencing, including blasting, the Approval Holder shall submit a construction plan to the Department of Environment and Climate Change and the Department of Natural Resources and Renewables – Geoscience and Mines Branch. The plan shall include completed surveys of soil, air and a water quality analysis of groundwater, surface water and each water well within 1000m of the point of construction that includes, but is not limited to, analyses for uranium and arsenic.
  - For areas where projects are within known uranium mineralization, the Approval Holder will have a qualified person conduct surveys of all potential pathways of human exposure for the blast area immediately post-blast and at regular intervals until construction of the site is completed.
  - The Approval Holder shall immediately contact ECC and NRR Geosciences and Mines Branch should elevated levels (above CCME Guidelines) of uranium mineralization be encountered on the Project site, and for areas where a mitigation plan is not currently in place, develop and implement a plan to manage the uranium mineralization.
- We note that Turbines T14 and T16 are located within the presence of known elevated concentrations of uranium in the Juniper Lake area. It is strongly advised that the suggested T&C above be applied to these sites.

- As this is a known area of critical minerals, specifically REEs, a review is recommended to determine which exploration licences could be affected by this proposed project. Once the review is performed, engagement by Windy Ridge Wind is strongly encouraged to notify the owners of the affected mineral rights to discuss potential impacts to the areas under the exploration licences.
  - Landowner permission is required for mineral license holders to access land and perform exploration. We look to encourage continued dialogue among the parties to ensure access for mineral exploration activities in this area continues.
- If any new historical or abandoned mines are discovered during the construction of this project, the Geoscience and Mines Branch are to be notified.

## Further Details To Support Key Considerations

- A more comprehensive review and presentation of all historical geoscience data is needed for the development footprint and project area to identify areas of concern and or develop potential mitigation or avoidance procedures. At a minimum this should include the following elements:
  - 1. Detailed geological map(s) of the development footprint and project area (on a LIDAR base), which identifies the relevant structure and stratigraphy of the project area.
  - 2. Uranium distribution map layer(s) based on geological, geophysical and geochemical data.
  - 3. A technical summary that:
    - a. Clearly identifies and describes known occurrences of uranium mineralization on the overall project footprint (e.g., geological, geophysical and geochemical).
    - b. Clearly identifies and describes the local health and safety risk (i.e. frequency and severity) pertaining to
      - i. known occurrences of uranium mineralization,
      - ii. potential occurrences of uranium mineralization and
      - iii. naturally occurring secondary geological pathways (e.g., structures and till dispersion).
  - 4. Recommended as part of potential mitigation and or avoidance planning:
    - a. An exposure assessment (general) related to geoscience site characterization.
    - b. An exposure assessment for planned activities (e.g., infrastructure development and all primary or secondary ground disturbance activities).
- Continually monitor the pad conditions as the development progresses for both potential uranium and arsenic occurrences and ARD conditions. In addition, as development progresses toward the northern extremity of the proposed footprint, this will likely result in a change in rock type to a primarily volcanic bedrock that may contain elevated levels of arsenic.

## Land Services Branch:

No further comments.



Subject:	Windy Ridge Wind Power, Colchester County, Nova Scotia
From: Services	Lesley O'Brien-Latham, Executive Director, Policy and Strategic Advisory
To:	Kelly Maher, Environmental Assessment Officer
Date:	June 25, 2024

## Scope of review:

The scope of this review follows the Department of Fisheries and Aquaculture's legislated mandate to develop, promote and support fishing, aquaculture, seafood processing and sportfishing in Nova Scotia.

## List of Documents Reviewed:

Windy Ridge Wind Power Project Environmental Assessment

## **Details of Technical Review:**

There are six licensed marine commercial fisheries buyers/processors located within Cumberland County adjacent to the proposed site. Activities deriving from the proposed wind project are not expected to pose any negative impacts to the operations of these facilities. The proposed project is adjacent to Lobster Fishing Areas (LFAs) 26A & 35. Fishing in LFA 26A occurs from May 15th to June 30th. Fishing in LFA 35 occurs from October 14th to December 31st and opening again from the last day in February until July 31st, respectively. As the project is land-based with no proposed marine activities, it is not expected to pose negative impacts to lobster and other commercial marine fisheries adjacent to the proposed site.

There are communal-commercial, livelihood, and Food, Social, and Ceremonial (FSC) fishing activities occurring within LFAs 26A & 35 (i.e. The waters adjacent to the proposed site). The Indigenous communities of Pictou Landing First Nation (located 150km East of the proposed site) and Paqtnkek-Niktuek First Nation (located 215km East of the proposed site), possess access rights (via licences granted by the Federal Department of Fisheries and Oceans) to pursue these lobster fisheries in LFA 26A. The Indigenous community of Sipekne'katik First Nation possesses access rights (via licences granted by the Federal Department of Fisheries and Oceans) to pursue these lobster fisheries or interactions, it is not expected to pose negative impacts to the lobster and other commercial marine fisheries (harvested by the Paqtnkek-Niktuek and Sipekne'katik First Nation communities) adjacent to the proposed site.



There are a total of 0 rockweed leases and 22 aquaculture sites within 25km of the proposed project. Of these, 17 are marine shellfish sites, 0 are marine finfish sites, and 5 are land-based aquaculture facilities.

Risks to aquaculture sites from reduced water levels or quality need to be monitored and mitigated appropriately. The applicant should be made aware of the aquaculture operations within the area and ensure mitigations are implemented appropriately. Please refer them to the following link to identify the sites and operators within their area, <u>Site Mapping Tool - Government of Nova Scotia, Canada.</u> If power disruptions are going to occur, or large amounts of sediment generated, the applicant needs to update their plans and provide appropriate mitigations for review.

The Project proponent should be made aware of the <u>Fisheries and Coastal Resources</u> <u>Act</u>, Provincial <u>Aquaculture License and Lease Regulations</u>, Provincial <u>Aquaculture</u> <u>Management Regulations</u>, and the <u>Nova Scotia Rock Weed Harvesting Regulations</u>.

## Key Considerations: (provide in non-technical language)

- The Department does not anticipate risks to commercial fishing or marine activities within the department's mandate as the project is land-based
- Potential adverse impacts on the aquaculture and rockweed harvesting industries are expected to be minimal provided that appropriate monitoring and mitigation measures are effectively implemented.
- The Department does not anticipate any risks to Nova Scotia's sportfishery.



**Environment and Climate Change** 

Date:	June 25, 2024
To:	Kelly Mahar, Environmental Assessment Officer
From:	Neil Morehouse Manager Protected Areas and Ecosystems
Subject:	WINDY RIIDGE WIND POWER PROJECT

## Scope of review:

This review focuses on the following mandate: Protected Areas and Ecosystems

List of Documents Reviewed: Wilderness Area Protection Act, Special Places Protection Act

Details of Technical Review: Windfarm in close Proximity to Wilderness areas

Key Considerations: (provide in non-technical language) No further comments

From:	Land Use
То:	
Cc:	
	; <u>Maher, Kelly</u>
Subject:	24-1978: Wind Turbine(s) (Windy Ridge Wind Power Project) - Wentworth, Colchester, NS
Date:	June 27, 2024 10:37:45 AM
Attachments:	24-1978 Letter to proponent.pdf
	24-1978 Construction Start Notice.pdf
	24-1978 Coords.xlsx

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Please find attached a letter from NAV CANADA regarding your wind turbine(s) (Windy Ridge Wind Power Project) submitted on 2024-06-06.

We ask that you notify us at least 90 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 and an Excel copy of the attached spreadsheet. If you have any questions, please don't hesitate to contact me.

NAV CANADA's land use evaluation is based on information known as of the date of this letter and is valid for a period of 18 months, subject to any legislative changes impacting land use submissions. 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, other Federal Government departments, Provincial or Municipal land use authorities or any other agency from which approval is required. Innovation, Science and Economic Development Canada addresses any spectrum management issues that may arise from your proposal and consults with NAV CANADA Engineering as deemed necessary.

Regards,

Steve McCarthy Land Use Specialist | Spécialiste d'utilisation de terrains AERONAUTICAL INFORMATION MANAGEMENT (AIM) NAV CANADA Personal: <u>Steve.McCarthy@navcanada.ca</u> Group: <u>LandUse@navcanada.ca</u> 1601 avenue Tom Roberts Avenue, Ottawa, ON K1V 1E5 T. (613) 248-4102 / F. (613) 248-4094 www.navcanada.ca



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June 27, 2024

Your file Windy Ridge Wind Power Project Our file 24-1978

Windy Ridge Wind Ltd 5605 Av. de Gaspé, Suite 508 Montreal, QC H2T 2A4

RE: Natural Resources: Wind Turbine(s) - Wentworth, Colchester, NS (See attached document(s))

NAV CANADA has evaluated the captioned proposal and has no objection to the project as submitted; however, there are impacts to NAV CANANA instrument procedure.

- T827 between Paulo and Nutby: MOCA to read 2800
- T827 HOLD AT PAULO: Minimum Holding Altitude (MHA) to be raised from 2600' to 2900'
- Enroute Lo Chart: Area Minimum Altitude (AMA) to be raised to 2900'

Debert, NS (CCQ3)

• Canada Flight Supplement Obstacle Clearance Circle (OCC) - to be raised from 2100 to 2600.

Our assessment does not constitute an approval and/or permit from other agencies.

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, <u>we ask that you notify us at least 90 business days prior to the start of</u> <u>construction</u>. This notification requirement can be satisfactorily met by returning a completed, signed copy of the attached form and an Excel copy of the attached spreadsheet by email at <u>landuse@navcanada.ca</u> 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 email at landuse@navcanada.ca.

NAV CANADA's land use evaluation is based on information known as of the date of this letter and is valid for a period of 18 months, subject to any legislative changes impacting land use submissions. 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, other Federal Government departments, Provincial or Municipal land use authorities or any other agency from which approval is required. Innovation, Science and Economic Development Canada addresses any spectrum management issues that may arise from your proposal and consults with NAV CANADA engineering as deemed necessary.

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Regards,

# Land Use Office NAV CANADA

cc ATLR - Atlantic Region, Transport Canada



	File II	nformat	ion		
<b>NC File No</b> 24-1978	TC File No			-	<b>ponent File No</b> ly Ridge Wind Power Project
	ANADA, Land Use landuse@navcanada.ca	From:	Wind	dy Ridge \	Wind Ltd
	Nearest town:	We	entworth, C	olchester	; NS
	Latitude (N)		is form mus readsheet.	st be retu	rned with a completed Excel format
Site Information:	Longitude (W)				
	Ground (above sea level)	- 11			ft
	Structure Height (above ground leve Total Height (above sea level)	əl)			ft ft
		ction Ti	malina		
Please enter the con marking information	<b>Construction Timeline</b> In the interest of aviation safety, NAV CANADA must be notified at least 90 days in advance of the start of construction. Please enter the construction start date (and end date if required) in the space provided below along with any lighting and marking information (as required by Transport Canada).				
Construction start (permanent structur					
Construction date( (temporary structure				To:	
<b>Construction daily</b> (temporary structure				To:	
Daily Usage Times	- Indicate date/times for which the crane	e will be i	n operation	n up to the	e maximum height.
	Structure Ligh	ting an	d/or Mark	ing	
navigation require m	ss of their height, that have been assess narking and/or lighting in accordance wit ed to meet the standards specified in <b>CA</b>	h the Ca			
Structure will have	temporary lighting during constructi	on:	Yes		No
	vide anticipated date for ing system to be operational:				
Structure will ha	ave permanent lighting upon complet	ion:	Strue		be marked upon completion:
	Yes No Yes No Ves No Ves No Ves Vos Ves Ves Ves Ves Ves Ves Ves Ves Ves Ve				
I hereby certify that herein to be true an	the location, height/elevation, construction decurate.	on dates	, as well as	lighting a	and marking information contained
Name		Signa	ature		
Title		Date			

June 24, 2024



# RE: Support for Windy Ridge and the Opportunity for Economic Reconciliation Dear Colchester

Councillors,

My community of Membertou is a progressive Mi'kmaq community located on Unama'ki – Cape Breton Island. With a strong focus on community growth through economic development, the spirit of Membertou is driven by its close-knit and vibrant people.

Three decades ago, Membertou was on a steady path of economic decline; unemployment rates were high and community morale was low. In 1995, Membertou had 37 employees and was operating on a \$4-million budget while dealing with a \$1-million annual operating deficit. We needed a change, and we decided to forge a new economic frontier that built on the innovations of the present while at the same time, incorporated with indigenous knowledge based principles of conversation, the sustainability of resources and reverence for the land and the waters. Since that time, Membertou has flourished into what it is today; a thriving community.

Our budget has grown into a current 112-million-dollar operating budget and the number of employees increased from 37 to nearly 600, which includes community and non-community members.

## Membertou's Role in Colchester Wind Power Projects

Membertou is equity partners in EverWind and partnering with EverWind on several wind power projects through Wind Strength, a Membertou company. As the leadership of the Membertou community, our role is to serve our community in many capacities, including strong governance, and skilled administration of the programs and services necessary for our people.

Over the last three decades, we've been working diligently every day to build economic prosperity to ensure that not only can we provide the necessities for our community, but we can break generational cycles of poverty. In our efforts towards growth, Membertou created the Membertou Development Corporation, which today is home to thirteen corporate business entities, and also encompasses various partnerships and ownership models; all of which directly benefits the people of our community.

Commercial revenues generated in Membertou work in a cooperative model, which sees profits reinvested back into our people, and our businesses.



Wind Strength is one those projects, which will have significant impact for two very important reasons:

1. Wind Strength will support Canada, Nova Scotia (Mi'kma'ki), and the world's transition to green energy. As Mi'kmaq, and first peoples of this land, we are incredibly passionate about our role in stewardship for the lands and waters of our territory.

2. Wind Strength's eventual revenue model will follow our Membertou model; revenues generated from this project will come back to our community to directly support our people

## **Our Support for Wind Farms**

As partners, we are supportive of EverWind, and our partnership in the Windy Ridge Wind Power Projects and know that its potential will have positive impacts for the future. In Mi'kmaq culture, we value preservation of our lands for the next seven generations. The actions we take today, will determine what is inherited by our children and grandchildren for years to come.

Our ongoing partnership with EverWind Fuels is very important to us, and through this partnership we have entered into the green energy sector, which will enable us to both be part of the solution as our province and country transition to cleaner sources of energy for the future, and it aligns very closely with our Mi'kmaq values. As traditional stewards of this territory, it's important that we play a key role in the economic and environmental transition towards decarbonization.

EverWind has committed to continue to actively engage with Membertou, our community and development corporation, regarding environmental matters and any potential impacts on Mi'kmaq Rights. We feel that EverWind has gone above and beyond to not only include the Mi'kmaq in their project, but to work in partnership with us; creating a true nation-to-nation partnership that aligns with the values of economic reconciliation.

## Support for Windy Ridge

Please accept this letter with full support for Windy Ridge from our Chief & Council. We support the transition to green energy. For generations, the Mi'kmaw were excluded from participating in and benefitting from the economic development of our natural resources. This project provides an opportunity for true economic reconciliation for our community.

Please do not hesitate to reach out to us about details surrounding the Wind Strength project at any time.

Wela'lin. In peace and friendship,

Chief & CEO, Membertou



# Re: Support for Windy Ridge and the Opportunity for Economic Reconciliation

As the Chief Executive Officer of the Bayside Development Corporation of the Paqtnkek Mi'kmaw Nation it is my pleasure to bring forth this letter as an acceptance, that our NATION has full support for the Windy Ridge Wind Power Project.

We support the transition to green energy. Bayside Development Corporation, the Business arm for the Paqtnkek Mi'kmaw Nation is in discussions for minority ownership in Windy Ridge and are equity partners in EverWind's production facility. For generations, Mi'kmaw were prevented from participating in and benefitting from the economic development of our natural resources. This project provides an opportunity to make the dreams of our grandparents a reality.

Aligned in value with EverWind, Paqtnkek Mi'kmaw Nation and Bayside Development Corporation is fully apprised of the scope of the projects and are of EverWind's wind farms and green fuels production facility. The equity partnership between EverWind and Bayside Development Corporation allows us to meet our goals of securing our long-term economic independence and energy sovereignty and supporting the provincial climate change objectives.

Our community is looking at further opportunities to support EverWind to ensure a strong transition to clean energy. As stewards of this land, we are pleased to see this exciting project so close to home. EverWind has committed to continue to actively engage with Paqtnkek Mi'kmaw Nation regarding environmental matters and any potential impacts on Mi'kmaq Rights.

This Project shows the power of bringing together Mi'kmaq traditional knowledge with the world's leading companies like EverWind. As Mi'kmaw, we understand the importance of helping lead the way in the green hydrogen industry given its importance to the environment. Our involvement aligns with our priorities to actively participate in the sustainable development of our natural resources and the decarbonization of our energy systems and supply. Since the inception of the Project, EverWind has included Mi'kmaq in development, ensuring alignment with two-eyed seeing approaches, and the project economics. We support EverWind's approach. True partnerships like this are embodiment of moving together into reconciliation.

Sincerely yours In Friendship and Economic Reconciliation;

Paqtnkek Mi'kmaw Nation

**Bayside Development Corporation** 



# Re: Support for Windy Ridge and the Opportunity for Economic Reconciliation

Please accept this letter with full support for the Windy Ridge Wind Power Projects.

We support the transition to green energy. Potlotek equity partners in Windy Ridge, and are equity partners in EverWind's production facility. For generations, Mi'kmaw were prevented from participating in and benefitting from the economic development of our natural resources. This project provides an opportunity to make the dreams of our grandparents a reality.

Aligned in value with EverWind, Potlotek Mi'kmaw Nation and Potlotek Development Corporation is fully apprised of the scope of the projects and are supportive of EverWind's wind farms and green fuels production facility.

Potlotek leadership understand the need to move to green renewable energy and this agreement allows us to be a part of that change. Having EverWind's green fuels production project in our County and in our backyard allows us to see and be a part of working towards a greener future through the development of alternative energy sources. Green hydrogen will help pave the way forward for a greener future for generations to come.

Having an opportunity to partner with a company who understands the importance of the relationship that we, the Mi'kmaw, have with our environment is vital to the development of a successful project. Creating meaningful partnerships such as this will enable the Mi'kmaw to not only sustain economic independence but will also provide employment and training opportunities for future generations to come.

This Project shows the power of bringing together Mi'kmaq traditional knowledge with the world's leading companies like EverWind. As Mi'kmaw, we understand the importance of helping lead the way in the green hydrogen industry given its importance to the environment. Our involvement aligns with our priorities to actively participate in the sustainable development of our natural resources and the decarbonization of our energy systems and supply.

Sincerely yours,

- -

Potlotek Mi'kmaw Nation

Potlotek Development Corporation



Our Rights. Our Future.

75 Treaty Trail Truro, NS B6L 1W3

 Tel
 (902)
 843
 3880
 Fax
 (902)
 843
 3882

 Toll Free 1
 888
 803
 3880
 Email
 info@mikmaqrights.com

 www.mikmaqrights.com
 www.mikmaqrights.com
 Water and the second secon

July 3<sup>rd</sup>, 2024

Kelly Maher Environmental Assessment Officer Environmental Assessment Branch Nova Scotia Environment and Climate Change E-mail : <u>kelly.maher@novascotia.ca</u>

## <u>RE: Consultation with the Mi'kmaq of Nova Scotia on Windy Ridge Wind Power Project,</u> <u>Colchester County and Cumberland County</u>

Ms. Maher,

I write to acknowledge receipt of your letter dated June 4, 2024, with respect to the *Terms of Reference for a Mi'kmaq- Nova Scotia – Canada Consultation Process* (TOR) as ratified on August 31, 20210, on the above noted project. We wish to proceed with Consultation.

The Kwilmu'kw Maw-Klusuaqn (KMK) wish to acknowledge Membertou, Paqtnkek and Potlotek First Nations as partners on this proposed project. We recognize that more needs to be done in the transition away from fossil fuels and are encouraged to see that the Mi'kmaq are at the forefront in various renewable energy projects.

This project may impede the ability to hunt, fish, and gather in the project area. As referenced in the Environmental Assessment Registration Document (EARD), Mainland Moose, Deer, Atlantic Salmon, American Eel, and more are all found in the project area.

Our office is growing concerned of the potential cumulative impacts of the wind projects proposed for Mi'kma'ki. We are concerned of how the Mainland Moose population will be impacted by the influx of existing, approved, and proposed wind farm projects in Mainland Nova Scotia. This species has already been put under immense strain in recent years and population numbers are at an all time low. Nova Scotia Environment and Climate Change (NS-ECC) must consider the cumulative impacts of how this endangered species and other at-risk wildlife will co-exist with wind projects.

KMK's Archaeology Research Division (ARD) has reviewed the initial Archaeological Resources Impact Assessment (ARIA) completed by Boreas Heritage which consisted of a desktop study and historical review. At this time, ARD agrees with the initial recommendation to complete field reconnaissance and a shovel testing program. We look forward to reviewing the results of this ARIA and providing feedback to NS-ECC when it becomes available.

KMK does not represent the communities of Membertou, Millbrook or Sipekne'katik First Nations.

We look forward to future Consultation on this project. This includes reviewing and commenting on the ARIA and Mi'kmaq Ecological Knowledge Study (MEKS) when both become available and future permits and approvals such as the Crown Land Lease. Please contact Patrick Butler, Senior Energy & Mines Advisor, at Kwilmu'kw Maw-klusuaqn with any questions.

Yours in Recognition of Mi'kmaw Rights and Title,

Director of Consultation Kwilmu'kw Maw-klusuaqn

Cc:

Kwilmu'kw Maw-klusuaqn Gillian DesRoche, Nova Scotia Office of L'nu Affairs Mark MacDonald, NSECC ICE Division Samuel Donaldson, NSECC ICE Division Tanya Mackenzie, NSECC ICE Division Cynthia Steele, Nova Scotia Department of Natural Resources and Renewables Beth Lewis, Communities Culture, Tourism and Heritage

From:	
To:	Environment Assessment Web Account
Subject:	EverWind Project - Open House in ErinVille NS
Date:	June 10, 2024 9:19:49 AM
Attachments:	image001.png

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Thank you very much for hosting the open houses for the public.

These events provide us with a valuable opportunity to learn more about the project, understand its current status, and anticipate what's to come. It seems like an amazing industrial opportunity that will hopefully boost our economy in Nova Scotia and across Canada.

The information shared is incredibly helpful in keeping the community and everyone in Nova Scotia informed and engaged. Please continue these efforts.

Thank you again for your dedication and transparency.

Best regards,

Technical Sales Engineer for Atlantic Canada DXP | Natpro



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Environment Assessment Web Account
Wind Mills
June 10, 2024 12:22:50 PM

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I wish to state that I am completely against any or all wind mills in Colchester County. They will not be of any advantage to us and will destroy our natural beauty of our area. , Belmont, Colchester County, NS



Environmental Assessment Branch Nova Scotia Environment and Climate Change PO Box 442 Halifax, Nova Scotia B3J 2P8

June 10, 2024

Deputy Minister MacEachern:

I am writing on behalf of Nova Scotia Community College, to express support for the Windy Ridge Wind Power Project from Everwind Fuels that is currently under environmental assessment by the Nova Scotia Department of Environment and Climate Change.

As a post-secondary institution committed to building Nova Scotia's economy and quality of life, NSCC recognizes that protecting our greatest resource must be a priority. The College's strategic plan calls upon NSCC to consolidate efforts and align programming and research to support the transition to a low carbon economy. Working with industry is core to who we are, whether it be developing programs or customized training to realizing business solutions. NSCC is committed to working together to make a meaningful difference in ensuring the energy sector has the skills and talent required to scale up clean energy, decarbonize hard-to-electrify industries, and grow the net-zero economy across the country.

NSCC supports the Windy Ridge Wind Power project as it an excellent example of the kind of progress needed to meet our commitment to renewable energy in Nova Scotia. The installation of 49 wind turbines is a significant investment in the renewable energy infrastructure for Nova Scotia. The power generated through this project will help to open the path to creating green hydrogen, which could enable Nova Scotia to become a major contributor to lowering reliance on fossil fuels on a global scale. As part of our work in supporting this transition to cleaner energy, NSCC is in the process of developing a new Wind Turbine Technician program that will provide the skilled labour needed to install, maintain and repair wind turbines. We will work together with industry partners, including Everwind Fuels, to meet the labour force needs of the growing wind energy sector.

Sincerely,

School of Technology and Environment



June 10/2024

Sansom Equipment Limited 100 Upham Drive Truro, Nova Scotia B2N6W8 902- (cell)

To: Nova Scotia Environment, Environmental Assessment Branch, Halifax, NS:

Sansom Equipment Limited is an Atlantic Canadian owned company. We have had a presence in Colchester County for over 59 years and we consider ourselves to be good corporate citizens. We employ over two dozen people from the area with good paying jobs. Overall, we employ about 80 people in total at our four branches across the region. We support many local businesses in procuring many different items that we need to succeed. We also support many local causes and athletics in the area. We are actively investing in the future of Colchester County.

Sansom Equipment Limited designs, provides and services many different types of high tech, cutting edge equipment similar to what would be required on the Windy Ridge renewable energy project. Sansom Equipment is proud to be a part of the inevitable wave of the future for power generation in our province and we must move away from fossil fuel dependency as soon as possible. Projects like Windy Ridge are part of that solution. Wind energy projects have taken a huge upswing in the province, with many projects on the go. The research is sound, the projects are well thought out and the environmental ownership is paramount.

In order to bring Nova Scotia and Colchester County forward and be part of the green renaissance the province is experiencing, we need to move forward on the Windy Ridge project. Please reach out if you have questions.

Sincerely,

Branch Manager – Truro Sansom Equipment Limited

 420 WILSEY ROAD - FREDERICTON N.B. E3B 6E9 - TEL. (506)444-0344
 FAX (506) 444-0351

 100 UPHAM DRIVE - TRURO N.S. - B2N 6W8 TEL. (902) 895-2885
 FAX (902) 893-7584

 38 DUNDEE AVENUE - MOUNT PEARL NFLD - A8A 1L4 - TEL. (709) 726-4344 - FAX (709) 726-4419 13A
 FAX (709) 635-5765

 EMAIL: sansom@sansom.ca

executivedirector@colchesterfoodbank.com
Environment Assessment Web Account
Proposed Project Comments
June 18, 2024 3:13:00 PM

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Project: windy-ridge-wind-power-project Comments: To whom it concerns, I am writing in support of EverWind Fuelsâ?T KmIndy Ridge Wind Power Project and commitment to greener energy, jobs and community engagement. Colchester Food Bank has already felt the embrace of EverWind Fuels. Food insecurity is a deep rooted matter. Almost 100 of our attention is on emergency care and that requires money. Our goal has been to move to emergence where we focus on education, food literacy, advocacy and growing gardens. Our climate is changing, leaving the people of Colchester facing extra expenses. When natural disasters like hurricanes destroy our communities and flooding drowns our gardens/crops it impacts the Colchester Food Bank. We see an increase in food bank usage during natural disasters, especially after households have lost the food in their refrigerators and freezers after prolonged power outages. Due to torrential amounts of rain this summer our Food Bank Garden lost almost all of the root vegetables and many home gardeners in the area report a low yield from their back yard gardens. This climate crisis we are in negatively affects food security. EverWind Fuels has proven solutions such as reducing our carbon foot print, creating meaningful jobs with living wages, and offering precious community support and engagement. The Colchester Food Bank has benefited from their community support and engagement. Not only was I personally invited to one of their information open houses and offered a voice on their Community Engagement Committee, we also received a donation of \$10,000. It was graciously accepted and put to use for the purchase of food. Given the Colchester Food Bank has felt the increased pressures of rising food costs and increasing numbers of people using the food bank it was much needed. Currently we serve about 1800 individuals per month. During my visit to the Open House in Earltown I met a number of their representatives who explained how wind energy works. While they all were able to answer the technical questions I had, what struck me most was their commitment to community. They were all engaged with me as we also talked about food insecurity in Colchester. I saw real emotion and a real commitment to this community in crisis. The citizens of Colchester will not only benefit from wind energy, but also meaningful jobs, and further community engagement, therefore will assist in the Climate Crisis and Food Insecurity Crisis as we battle the emergency care and bring us forward into emergence. We are grateful for their partnership and support. Itâ?Ts essential. In support of EverWind Fuels, Executive Director Name: Email: executivedirector@colchesterfoodbank.com Address: 580 Prince Street Municipality: TRURO email message: Privacy-Statement: agree x: 55 y: 24



RES Group Windy Ridge Power Project

#### Subject: Letter of Support for Windy Ridge Wind Project

I am writing on behalf of United Rentals to express our strong support for the Windy Ridge Power Project. We believe this initiative offers substantial opportunities for collaboration and benefits to both local businesses and the wider community.

The Windy Ridge Power Project promises to create new employment opportunities and plays a vital role in boosting the local economy. By generating jobs, it has the potential to attract skilled workers back to our area, fostering growth and long-term sustainability.

Moreover, we commend the project's commitment to both local and global environmental impacts. Reducing reliance on fossil fuels aligns with our shared responsibility to address environmental challenges. The innovative combination of wind farms with green hydrogen production not only promotes local sustainability but also pioneers a new industry with global significance.

We understand the importance of collaborative efforts in reaching these goals, and we are eager to support the Windy Ridge Power Project in any way we can. As a company dedicated to progress and sustainability, we recognize the positive outcomes associated with this development.

In conclusion, we fully support the Windy Ridge Power Project and applaud the positive impact it will have on our community and beyond. We look forward to seeing the successful implementation of this initiative and are ready to contribute to its success.

Sincerely,

Sales Manager United Rentals 37 Payzant Ave, Dartmouth, NS B3B 2E1 LMR Account Executive HiTech Communications Ltd. 15 Glencoe Drive Mount Pearl, NL, A1N 4P6 @hitechcom.ca +1 709-

June 24, 2024

Environmental Assessment Branch Nova Scotia Environment PO Box 442 Halifax, NS, B3J 2P8

To Whom It May Concern,

I am writing to express HiTech Communications' strong support for the Windy Ridge Wind Power Project, submitted for environmental assessment by EverWind in partnership with Mi'kmag development corporations of Pagtnkek First Nation and Potlotek First Nation.

This project, consisting of 49 wind turbines and associated infrastructure, represents a significant advancement in renewable energy and sustainable development in Colchester. The project's commitment to leveraging previously disturbed areas aligns with responsible development practices.

The Windy Ridge project is poised to deliver numerous benefits to Nova Scotia, including the creation of 350 to 400 jobs during construction and 20 to 30 permanent jobs during operations. Additionally, the project promises significant local business participation opportunities, municipal tax benefits exceeding \$3 million annually, and a community benefit agreement that includes over \$300,000 annually for proximity payments, a community vibrancy fund, and a bursary program for renewable energy education.

This project not only supports green hydrogen and ammonia production but also brings substantial economic benefits to the region and meaningful engagement with Mi'kmaq communities. Importantly, it also provides local companies such as HiTech Communications the opportunity to offer our services throughout the project's lifespan, further stimulating the local economy.

HiTech Communications is proud to support initiatives that foster sustainable development and economic growth in our region. We urge the Environmental Assessment Branch to approve the Windy Ridge Wind Power Project, recognizing its potential to significantly contribute to Nova Scotia's renewable energy goals and economic vitality. Thank you for considering our support for this important project.

Sincerely,

LMR Account Executive HiTech Communications

CONNECT ATLANTIC UTILITY SERVICES

June 24, 2024

Environmental Assessment Branch Nova Scotia Environment PO Box 442 Halifax, Nova Scotia B3J 2P8

## Subject: Support Letter for Windy Ridge Wind Power Project

Dear Environmental Assessment Branch,

I am writing this letter to convey my strong support for the Windy Ridge Wind Power Project.

I have worked in the electrical utility industry for the past 16 years. I am currently the President of Connect Atlantic Utility Services, a high-voltage contractor that employees over 140 people in Nova Scotia. During my time in this industry, I have participated in the planning, construction, and maintenance of 5 wind farms in Nova Scotia and 11 wind farms in other parts of Canada including Projects Delivered by Renewable Energy Systems Canada (RES), the project developer and constructor. RES, in my opinion, is the best wind developer and constructor in Canada. I have also been a part of the planning, construction, and maintenance of 6 solar farms. Currently, my company is completing the project management on the Chester, Berwick, and Antigonish solar farms. We are proud to be doing our part to enable the move from fossil fuels to renewable generation.

I have seen first-hand the tremendous benefits of renewable energy projects to communities, to economies, and to the environment. I have also seen first-hand the initial resistance to wind farms by a vocal minority of residents within communities. My experience has been that these vocal minority were reasonably skeptical that the wind farm project would have the stereotypical negative impacts of industrial projects. However, once complete, most of that vocal minority realize that the projects followed strict environmental regulations to protect wildlife and the surrounding environment, that roads and trails that they use to access the wilderness are upgraded and better maintained, and that overall, the projects benefited their communities.

The local community will greatly benefit from the Windy Ridge Wind Power Project in at least four major ways:

- 1. **Millions of Dollars added to the Colchester Annual Budget**: EverWind will pay annual municipal taxes of in excess of \$3,000,000 dollars for the life of the wind farm. That is millions of dollars that the Council can utilize each year to meet many demands that exceed its current budget.
- 2. **Community Funding Beyond Municipal Tax Revenue**: Over \$300,000 annually for proximity payments, a community vibrancy fund, and a bursary program for renewables education.
- 3. **Hundreds of Direct and Indirect Jobs**: There will 350-400 jobs during the construction phase such as engineering, procurement, logistics, road building, excavating, crane operations, electrical work, and more. After construction, there will be 20-30 permanent green-energy jobs. All these jobs involve highly transferrable skills that can be applied to other construction and/or energy projects that will benefit the local community for years and decades to come.
- 4. Economic boost to local suppliers of goods and services: Millions of dollars will be paid to local suppliers of goods and services to the projects before, during, and after construction. These contracts will help local goods and services suppliers grow and expand their offerings to meet the needs of the growing renewable energy industry in other parts of Nova Scotia.

In addition to the many benefits to the local community, the project will have a tremendous benefit on the overall Nova Scotia economy because this project is one of three EverWind wind power projects in Nova Scotia



that will enable the launch of a multi-billon-dollar Green Hydrogen industry. Green Hydrogen is important tool in battling climate change because it is made with green energy so there are no green house gases emitted. Furthermore, Green Hydrogen can be used to generate electricity without emitting any green house gases; when hydrogen is used as fuel, the exhaust is water vapor. It is truly clean energy.

There is significant demand for Green Hydrogen in many parts of the world including one of Canada's key trading partners and allies, Germany. Germany is looking for alternatives to its imports of Natural Gas from Russia. Green Hydrogen is an excellent substitute for that Natural Gas.

A common criticism of EverWind is that they are using Nova Scotia wind resources to produce Green Hydrogen for export rather than domestically to replace fossil fuels. This is short-sighted for two main reasons: first, Earth as one atmosphere, so an off-set of carbon anywhere on Earth benefits the entire World; and second, once there is a supply of Green Hydrogen, Nova Scotia Power will be able to convert its power plants to Green Hydrogen, thereby enabling us to reduce imports of fossil fuels and have a positive impact on climate change.

EverWind Fuels, in partnership with Membertou, Paqtnkek, and Potlotek Mi'kmaw First Nations, plans to use the energy from the Bear Lake Wind Power Project and other wind power projects to produce in Green Hydrogen by repurposing the formerly dormant NuStar Terminal in Point Tupper, Nova Scotia. The site already has much of the needed infrastructure in place (e.g., storage facility, deep water port, rail access...). By repurposing an existing industrial site, EverWind is further minimizing environmental impacts. It is a global race for Green Hydrogen and because of EverWind's investment in the NuStar terminal, EverWind has a head start on other Green Hydrogen Projects that enables the launch of the Green Hydrogen industry here at home.

It is important to note that a delay in the development of this wind farm could put the entire EverWind program in jeopardy. There is tremendous competition for capital investment dollars around the world. A delay introduces uncertainty to investors. Any doubt could prevent EverWind from locking in multi-hundred-milliondollar contracts for wind turbines and other items with high global demand and very long lead times. EverWind would need to decide if it should wait and hope it has not lost its schedule advantage in the race to launch the global Green Hydrogen industry, or if it should invest in different projects in more pro-business, pro-green energy jurisdictions. We need to confirm to EverWind that they already selected the best pro-business, progreen energy jurisdiction.

I would like to end my letter by sharing a story about my late grandmother, and the Glen Dhu Wind Farm in Pictou County, Nova Scotia. My grandmother attended public meetings in support of the Glen Dhu Wind Farm because she knew that a small number of her neighbours were speaking out against the project. She lived at the bottom of the hill where the Glen Dhu Wind Farm was being built and she hoped to live to see the turbines spinning from her porch before she died. Granny passed away in 2019 , but that was after several years of enjoying seeing those turbines spin at the top of the hill. I encourage all of you who support wind power to speak up like my grandmother did. Doing so will be to the benefit of Colchester County, Nova Scotia, Canada, and the World.

Sincerely,

From:	
То:	Environment Assessment Web Account
Subject:	Windy Ridge Wind Power Project
Date:	June 25, 2024 9:42:42 AM

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https://novascotia.ca/natr/wildlife/sustainable/mmoosefaq.asp#mm4

In 2003, mainland moose were listed as an endangered species under the Nova Scotia Endangered Species Act! Please refer to the Nova Scotia provincial website above on protecting our declining mainland moose population! Cobequid Mountains is listed as a natural habitat area. It is documented to be an" isolated area with poor access", yet, proposals are being considered for construction of 49 wind turbines in that very same area by this Windy Ridge Wind Power project? Surely, I am not the only local resident to see the hypocrisy of that suggestion!

Does Nova Scotia want to protect these remaining few natural habitat areas left after significant forestry clear-cuts have already decimated so much of it or is attempting to provide very minimal green energy resources to another country more important?

Please help protect our own provincial natural resources within Canada first and foremost!

Respectfully,

Great Village, Nova Scotia



Clean Technologies Research Institute

June 25, 2024

Environmental Assessment Branch Nova Scotia Environment PO Box 442 Halifax, NS B3J 2P8 EA@novascotia.ca

## Re: Support for EverWind's Windy Ridge Wind Power Project.

Dear Sir/Madam,

The Clean Technologies Research Institute at Dalhousie University is pleased to provide this letter of support for EverWind's Windy Ridge Power Project. CTRI, supports research and training in clean technologies, including sustainable energy and green hydrogen. Our Institute includes a Green Hydrogen Research Cluster, actively supporting the growth of green hydrogen in Canada and the province. In addition to the significant economic benefits and contributions to reaching net-zero emission goals, success of this project will have a profound impact on Nova Scotia's capacity for research and training by establishing a green hydrogen hub in Atlantic Canada. Our researchers are actively working with industry, including EverWind, to develop a long-term R&D strategy that will bring together stakeholders and beneficiaries to address challenges and facilitate adoption of green hydrogen produced with sustainable wind energy.

We are currently working with EverWind Fuels on a Focused Research Investment (FRI) proposal to understand the current challenges in adopting green hydrogen in the province and finding sustainable solutions. EverWind has committed to take the environmental and social assessment research outcomes into consideration when planning their projects to minimize negative environmental impact and maximize economic benefit.

Sincerely,

Director, Clean Technologies Institute

FRI Co-lead, Dalhousie University

**Clean Technologies Research Institute** Dalhousie University 6414 Coburg Road PO Box 15000 Halifax, N.S. B3H 4R2 Canada Tel: 902.494.6373 Web: dal.ca/ctri Email: ctri@dal.ca PhD, Director

Tel: 902.494.2041



## WARDEN

### **Environmental Assessment Branch**

Nova Scotia Environment & Climate Change P.O. Box 442, Halifax, Nova Scotia B3J 2P8 EA@novascotia.ca

June 25, 2024

## Re: Windy Ridge Project Letter of Support (Windy Ridge Wind, 4560536 Nova Scotia Limited)

To whom it may concern,

The opportunity for Nova Scotia to export green energy and to build domestic demand will be transformational for our environment and our economy. The world has turned its attention to sourcing green energy from ethical regimes. As we transition away from energy production/security based on fossil fuels, the onshore wind and hydrogen projects proposed by EverWind Fuels will ensure that Nova Scotia takes its place as a leader in renewable, green energy production.

EverWind will build on decades of energy experience at their Point Tupper location in Richmond County to develop their Green Hydrogen production facility. The related Windy Ridge Wind (4560536 Nova Scotia Limited) onshore wind project located in the Cobequid Hills area is a key component in their plans. Located in in Colchester County, the Windy Ridge project alone is expected to create 350 to 400 jobs during construction and 20 to 30 permanent jobs during operations. Their municipality is poised to see significant impacts including local business participation opportunities, municipal tax benefits (over \$3 million annually in municipal tax over the project life), a community benefits agreement with over \$300,000 annually for proximity payments, a community vibrancy fund, and a bursary program for renewables education. In the spirit of municipal collegiality, and with the understanding that what benefits one part of our province benefits us all, Richmond County is excited for Colchester County to realize these positive impacts.

Windy Ridge represents a significant step forward in EverWind's commitment to renewable energy and sustainable development not only in Colchester, but in all of Nova Scotia. This is a commitment that is shared by the Municipality of the County of Richmond, and one that demonstrates how our regions can be successful working together on a global stage. The Windy Ridge project not only supports Richmond's green hydrogen and ammonia production, it also brings substantial economic benefits to the province along with meaningful equity partnerships with Potlotek and Paqtnkek Mi'kmaq communities that advance truth and reconciliation goals shared by us all.



With severe weather events impacting our region on an increasingly regular basis, the climate emergency is clearly upon us. On behalf of the Municipality of the County of Richmond, we fully support EverWind's Windy Ridge project as a step forward in meeting our responsibilities as local government to advance inclusive green energy production opportunities.

Sincerely,

Warden Amanda Mombourquette Municipality of the County of Richmond

cc: Councillors, Municipality of the County of Richmond , Chief of Staff, EverWind Fuels

From:	@gmail.com	
To:	Environment Assessment Web Account	
Subject:	Proposed Project Comments	
Date:	June 27, 2024 4:08:06 PM	

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Project: windy-ridge-wind-power-project Comments: As a full time, resident of New Annan, I support this project for the environmental and economic benefits it will province to our community, province and country. Nova Scotia has long suffered by NIMBY, while expecting the rest of the country and world to provide us a comfortable, materialistic lifestyle. This project is a step towards reducing world CO2 emissions by providing low cost clean electricity and the possibility of export to correct our trade imbalance. Thank you Name: Email: @gmail.com Address:

Municipality: New Annan email message: Privacy-Statement: agree x: 60 y: 29

Environment Assessment Web Account
letter of support
June 27, 2024 5:35:04 PM

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To whom it may concern:

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Please find enclosed, our letter of support for RES/Everwind windmill project which will be happening in the Wentworth area.

President of Hart Lake Owners Society

June 25, 2024

To whom it may concern:

On behalf of Hart Lake Owners Society, I am writing to express our acceptance of the proposed Windmill Project of RES/Everwind.

We have reviewed the plans and potential impacts and are confident it will bring benefits to our area.

We appreciate the communication and efforts that RES/Everwind had undertaken to involve local communities.

The Hart Lake Owners Society looks forward to continuing our collaborate relationship with Res/Everwind.

Sincerely,

Hart Lake Owners Society

From:	
To:	Environment Assessment Web Account
Subject:	Letter of Support - Windy Ridge
Date:	June 28, 2024 1:02:31 PM
Attachments:	Outlook-heurgse2.png
	Outlook-ywkvfl0v

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To Whom it may Concern,

I am writing to express my support for the Windy Ridge Wind Farm project proposed by EverWind Fuels in collaboration with the Mi'kmaq development corporations of Paqtnkek First Nation and Potlotek First Nation. This initiative represents a significant step forward in sustainable energy development and community empowerment. The Windy Ridge Wind Farm project is not only a critical move towards reducing our reliance on fossil fuels and mitigating climate change, but it also demonstrates a model of inclusive and respectful partnership with Indigenous communities. The involvement of Paqtnkek and Potlotek First Nations ensures that the project aligns with the values, needs, and aspirations of the local communities, promoting economic development, job creation, and a sustainable source of reliable, clean energy.

The environmental benefits of this project are substantial. Wind energy is a clean, renewable resource that we are blessed with and it will significantly reduce greenhouse gas emissions and minimize environmental impact compared to conventional energy sources. By supporting this project, we are taking meaningful action towards our provincial, national, and global climate goals.

The collaborative approach taken by EverWind Fuels and the Mi'kmaq fosters a spirit of reconciliation and partnership, providing a framework for future projects that respect and honor Indigenous rights and knowledge. This project stands as an example of how development can proceed in a manner that is both environmentally sustainable and socially responsible.

I urge the Environmental Assessment Committee to recognize the importance of the Windy Ridge Wind Farm project and to provide the necessary approvals and support to ensure its successful implementation. This project not only represents a positive step for our environment, economy, and also for our collective efforts towards a more equitable and sustainable future.

Thank you for considering my perspective on this matter. Sincerely,

, MBA, PMP

President

AW Leil Cranes & Equipment



www.awleil.com



From:	@gmail.com	
To:	Environment Assessment Web Account	
Subject:	Proposed Project Comments	
Date:	June 29, 2024 9:35:43 AM	

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Project: windy-ridge-wind-power-project Comments: I wish to express my personal support for this project. From my hill I can see five 5 existing windfields, and another Clydesdale Ridge is proposed for my area. While it would be ideal if no development of any kind were necessary, that is not the nature of the world in which we live. It is better to see wind turbines than the stacks of coal, gas, or oil generating stations. I realize some or most of the energy from this project may end up in Europe, but we share a single planet, and any reduction of emissions anywhere in the world is beneficial to all of us. Name: @gmail.com Address: Municipality:

Earltown area email message: Privacy-Statement: agree x: 33 y: 26



5516 Spring Garden Rd., 4<sup>th</sup> Floor Halifax, NS B3J 1G6 Ph: 902-478-7651 Fax: 425-5606 E-mail: gm@snowmobilersNS.com

June 24, 2024

Re: Environmental Assessment for The Windy Ridge Power Project

The Snowmobilers Association of Nova Scotia (SANS) is supporting the request from EverWind who, in partnership with Mi'kmaq development corporations of Paqtnkek First Nation and Potlotek First Nation have submitted the Environmental Assessment for the <u>Windy Ridge Wind Power Project</u>. The Project will consist of 49 wind turbines and associated infrastructure, including a substation, operation and maintenance building, transmission line, power collection systems, access roads, and temporary laydown areas. The project will leverage previously disturbed areas to minimize environmental impacts and ensure responsible development. SANS and the local clubs have met with the proponents to discuss issues related to the use of existing roads and trails that are used for recreation by motorized and non-motorized users.

The benefits to the Province, Colchester County and the local community are broad and as a local resident of Folly Lake I look forward to seeing the project and trail improvements made that will last for years within the community. Some of the benefits of this project to be considered are:

- The project is expected to create **350 to 400** jobs during construction and **20 to 30** permanent jobs during operations
- Significant local business participation opportunities
- Municipal tax benefits (over \$3 million annually in municipal tax over project life), community benefit agreement with over \$300,000 annually for proximity payments, a community vibrancy fund, and a bursary program for renewables education
- Windy Ridge represents a significant step forward in our commitment to renewable energy and sustainable development in Colchester
- This project not only supports our green hydrogen and ammonia production but also brings substantial economic benefits to the region and meaningful engagement with the Mi'kmaq communities

If there are any questions regarding this letter please contact me as soon as possible at 902-478-7651

Yours Truly,

From:	gmail.com	
To:	Environment Assessment Web Account	
Subject:	Proposed Project Comments	
Date:	July 2, 2024 8:01:42 AM	

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Project: windy-ridge-wind-power-project Comments: Although there may be some financial benefit for the Province, this project does nothing to address the ever growing problems with our current electrical grid. This project should not be approved. Name: @gmail.com Address: Municipality:

Debert email message: Privacy-Statement: agree x: 93 y: 17



Colchester Cumberland Wind Field Inc. 1594 Highway 246 Tatamagouche, NS Canada B0K 1V0 Phone: 902) 616-6531

June 28, 2024

# Re: Letter of Support - Windy Ridge Wind Power Project Environmental Assessment

To Whom It May Concern:

The Colchester-Cumberland Wind Field Inc. (CCWF), is providing this letter to support the implementation of Windy Ridge Power Project. The CCWF Board of Directors encourages this project for the overall environmental and economic benefits it will provide to our community, province, and country. We further support the local economic benefits during construction and the long-term employment in day-to-day operations.

The CCWF is a Nova Scotia corporation with a commercial wind field providing electricity directly to the village of Tatamagouche and surrounding areas. The CCWF managed construction of its Tatamagouche wind field in 2011 and continues operations since that time. With approximately 200 local investors, the wind field has provided economic returns to investors, local employment and environmental pride to the local area and the province.

The CCWF has a Memorandum of Understanding with the Windy Ridge Project (minority ownership of 1%). If successful, this Memorandum provides the opportunity for local investor participation in the Windy Ridge Project by the Province's Community Economic Development Investment Fund (CEDIF). The CCWF enables NS investors including those who live and work near the project to qualify for benefits from the development. Furthermore, the agreement between CCWF and The Windy Ridge Project may set a precedent for future large scale wind fields in NS.

I BUT AT AMERICA

1

CCWF is confident that the Windy Ridge Project is part of the Nova Scotia solution for environmental and economic progress.

Respectfully,

CCWF President corp@ccwf.ca

H(K=0,4h,0)

From:	
То:	Environment Assessment Web Account
Subject:	Windy Ridge EA, Plains Road Access Roads
Date:	July 3, 2024 11:46:09 AM

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Hi,

I am writing to express my concern with all three of Windy Ridge access road options that have been proposed off the Plains Road in East Mines. Our family own properties on the Plains Road and on the East and West side of the Reid Road. There will be impacts to our properties if any of these options are selected. The proposed access roads impact on a forestry nursery, agricultural land and residential properties.

I understand that the Reid Road is the preferred option being considered. Noise, safety, and road damage are concerns with the truck traffic and the increased road traffic in general. The Reid Road has steep road grades when approaching the Plains Road. When trucks approach the Plains Road from the North, visibility is poor when they round the crest of the hill and begin the descent to the Plains Road. You can expect cars exiting driveways, children riding bicycles or waiting for school buses and slow moving agricultural equipment along this section of the road. It is impossible for a loaded truck to stop in a short distance particularly when visibility is reduced and roads are slippery. Drivers of loaded trucks will have difficulty stopping at the intersection of the Reid Road and the Plains Road if they are unskilled or not familiar with the road and conditions. Engine jake brakes help to improve braking and reliance on the truck brakes but add to the noise issue.

Please consider alternative access road options that include the option to upgrade an old road that once came off the #4 Highway by the Folly Mountain Cemetery. This route comes off a highway that is designed for truck travel. It is not in a residential or agricultural area. It is close to road building and windmill construction materials and provides a direct route to the Wind Mill site. It offers an additional access point to the area to be used for the construction equipment and by logging trucks. I recognize that this option requires land clearing, grubbing, adjustment to road grades and reinstating a bridge across the Folly River. These costs would be minor when considering the overall project cost and the long term benefits of a safer access road having less of an environmental impact. I am anxious to discuss this option further if given the opportunity. I look forward to your reply.

Regards,

To whom it may concern,

I am writing to express my unwavering support for the Windy Ridge Wind Power Project development in Colchester County. I proudly call this area my home, having been born here and purchased a house in the area 15 years ago, further solidifying my commitment to this community for the foreseeable future. In my spare time, I frequently utilize the wilderness areas earmarked for the proposed projects for activities such as camping, fishing, and motorcycling. I am attuned to the concerns expressed by some residents about potential disruptions. However, I firmly believe that the changes, including the visibility of turbines and increased traffic, are minimal when compared to the overall benefits of the project and will not substantially diminish my enjoyment of the area. These types of developments are a necessary step toward fostering a brighter, greener, and more sustainable future for the region.

The benefits that this project brings to Nova Scotia are substantial and multifaceted:

- **Economic Growth**: The project is anticipated to create 350 to 400 jobs during construction and 20 to 30 permanent jobs during operations, providing much-needed employment opportunities in our region.
- **Local Business Participation**: There will be significant opportunities for local businesses to participate, further stimulating our local economy.
- **Municipal Tax Benefits**: Over the life of the project, it is expected to generate over \$3 million annually in municipal taxes, along with a community benefit agreement providing over \$300,000 annually for proximity payments, a community vibrancy fund, and a bursary program for renewables education.
- **Commitment to Renewable Energy**: Windy Ridge represents a critical step in our commitment to renewable energy and sustainable development in Colchester. It supports our green hydrogen and ammonia production, bringing substantial economic benefits and meaningful engagement with Mi'kmaq communities.

Economically, the proposed wind projects offer a rare opportunity to stimulate growth and development in an area that has yet to witness a significant economic upturn in my lifetime. Having witnessed individuals relocate for work and numerous people move away for better job prospects, I understand the challenges facing our community. The wind project development presents a chance to reverse this trend, providing well-paying jobs and contributing to the economic prosperity of our region.

Furthermore, the potential prospect for green hydrogen production is a groundbreaking opportunity that aligns with global shifts toward sustainable practices. By collaborating

with responsible business owners, we can position this area at the forefront of a new industry, ensuring both economic growth and energy security for years to come.

I urge you to not let this valuable opportunity slip away due to the short-sightedness and opposition of a vocal minority. The long-term benefits far outweigh any temporary inconveniences, and this is our chance to shape a more sustainable and prosperous future for the region.

I kindly request that you approve the Environmental Assessment for the Windy Ridge Wind Power Project.

Kind Regards,

From:	@gmail.com	
To:	Environment Assessment Web Account	
Subject:	Proposed Project Comments	
Date:	July 4, 2024 9:59:56 AM	

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Project: windy-ridge-wind-power-project Comments: This project is a mass production of a conglomerate of projects by everwind that stands to benefit EVERWIND the most. They are a foreign company- which has been baffling the government with their Bull - heres the thingwind is NOT guaranteed- they need wind to product the hydrogen- they want to export- they want to decimate our lands to build their wind factory and use our grids- stating they can return some energy to the NS Grid- but they cant guarantee it because wind is not guaranteed and theyd make more money exporting it- SO- this project doesnt belong here- GREEN NOVA SCOTIA FIRST- if that is what you want to do- do NOT allow these conglomerates to take our lands and decimate them so THEY can make money. Exploiting our lands is NOT the answer- stop allowing us to be taken advantage of- look at the big picture- you work for the NOVA SCOTIANS who elected you- not EVERWIND- Prove it! Name:

Email:@gmail.com Address:Municipality: WestchesterStation email\_message: Privacy-Statement: agree x: 67 y: 26

From:	
То:	Environment Assessment Web Account
Subject:	Feedback - Windy Ridge project
Date:	July 4, 2024 12:33:05 PM

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I am writing to express my support for the Windy Ridge project. I think it will be a net benefit for the province, and I appreciate the advantages it provides for our electrical grid, particularly the ability for NSPI to use the power should they require it in times of peak demand by curtailing the hydrogen/ammonia facility that this project will power.

The other benefit I appreciate is the ability for individuals in the province to potentially own a small piece of this project through an investment in the associated CEDIF through Colchester Cumberland Wind Fields Inc.

Thank you,

From:	
To:	Environment Assessment Web Account
Subject:	Windy Ridge Wind Project - Letter from Folly Lake Landowners Association
Date:	July 4, 2024 1:20:12 PM
Attachments:	RES Everwind FLLOA Agreement April 2024 - executed by TV.pdf

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## Good afternoon,

I am reaching out to submit an agreement that was reached with the Folly Lake Landowners Association (FLLOA) on behalf of the Windy Ridge Wind Project. After much dialogue and compromise, an agreement was reached between the project and the FLLOA. The FLLOA recognizes the efforts of RES/Everwind to reduce the impact of wind turbines on the community, they commit to not impeding the provincial or municipal permitting process and will continue to work with the project team to resolve any concerns throughout the construction and operations of the site if this project proceeds as planned.

## Please see attached for signed agreement.

Regards,

NOTICE TO RECIPIENT: This e-mail is meant for only the intended recipient of the transmission, and may be a communication privileged by law. This e-mail, including any attachments, contains information that may be confidential, and is protected by copyright. If you received this e-mail in error, any review, use, dissemination, distribution, or copying of this e-mail is strictly prohibited. Please notify us immediately of the error by return e-mail and please delete this message from your system. Any communication of a personal nature in this e-mail is not made by or on behalf of any RES group company. E-mails sent or received may be monitored to ensure compliance with the law, regulation and/or our policies. Thank you in advance for your cooperation.

Based on the information presented to the Folly Lake Landowners Association (FLLOA) by RES/Everwind and referencing the February 2024 plan presented by RES/Everwind at the February 12, 2024 community meeting, RES/Everwind and the Folly Lake Landowners Association agree to the following:

- RES Everwind agrees to remove turbines T24, T25 and T26 from the provincial and municipal planning process.
- RES/Everwind agrees to not build any turbines west of the East Branch of the Folly River.
- RES/Everwind agrees to share the final locations of turbines and physical plant with the Folly Lake Landowners Association prior to submission for the provincial Environmental Assessment and municipal permitting processes.
- The Folly Lake Landowners Association recognizes the efforts of RES/Everwind to reduce the impact of wind turbines on the community of Folly Lake and the compromises that have been made.
- The Folly Lake Landowners Association commits that it will not seek to impede the provincial and municipal permitting process for the Windy Ridge project.
- The Folly Lake Landowners Association commits that any issues during construction and operation of the project shall be resolved through open dialogue and established processes.

This agreement shall apply to all subsidiaries, successors, and assigns.

This agreement does not preclude individuals who are members of the FLLOA from pursuing their own interests in relation to the project.

Signed and Dated April 12,2024

Signed and Dated April 18, 2024

CEO 4560536 Nova Scotia Limited

Co-President FLLOA On behalf of the Folly Lake Executive

From:	
То:	Environment Assessment Web Account
Subject:	Windy Ridge Wind Project
Date:	July 4, 2024 1:24:03 PM

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#### \*\* EXTERNAL EMAIL / COURRIEL EXTERNE \*\*

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This letter is in regard to Everwind Fuels proposal for Windy Ridge wind project.

It has recently come to our attention that Everwind Fuels is considering using Reid Road in East Mines (Debert) as a primary access road to their proposed wind farm. We are against it. First of all, we disagree with the project as it in no way aids Nova Scotia from getting off coal generated electricity. We've lived on the Reid Road for 43 years. It's grown into a quiet neighborhood with 24 homes. Two school buses travel up and down this road four times daily. It is our understanding that environmental assessments submitted to government normally state which access routes they will use. Is this the case with Everwind Fuels submission?

At no time were we contacted or informed by Everwind Fuels of their proposed plan for Reid Road. It's rural living at its best and we will do what we can to keep it that way.

Yours truly,

Sent from my iPad

From:	Environment
То:	Environment Assessment Web Account
Subject:	Proposed Project Comments
Date:	July 4, 2024 5:30:25 PM

Project: - Choose - Comments: NO ONE IS LISTENING at the Department of Natural Resources Renewables and Department of Environment and Climate Change .....that is my fear .... but just in case anyone does listen and takes to heart my comments, hear they are : I am commenting on the Windy Ridge EA as a concerned resident of Colchester County. First, I am clearly for Wind Turbine projects that are 100 focused on decarbonizing the Nova Scotia power grid. This project does not fit that definition. We need to get the NS power grid off coal, oil and gas dependency before allowing WInd Turbine projects for Hydrogen Ammonia export. Over the next few years approx.1000 Industrial WInd Turbines are being constructed in Nova Scotia, all to produce green energy for Hydrogen ammonia - which is about 3/4 of all the WInd Turbine Development in that period. We are putting the cart before the horse in expanding huge wind turbine projects before developing proper province wide land use development planning. We need to support more local community developed wind projects not private foreign owned hydrogen projects that are receiving large tax credits and loans from the federal and provincial governments. This project will destroy massive areas of wetlands and adversely effect wildlife, ecosystems as well as recreational and tourism activities and will NOT bring any long term economic environmental benefits to Nova Scotia. From both an economic and an environmental prospective, this project completely fails to deliver in any key areas. Bottom line: this project will not contribute to the Provinceâ? Ts renewable energy targets. This wind project should be assessed as part of Ever WIndâ?Ts overall hydrogen ammonia development Project at Point Tupper - not as a separate WInd Turbine project. Hydrogen production involves the use of massive amounts of water and produces large carbon dioxide emissions to produce. And since wind turbines do not produce electricity 24/7 this Hydrogen project will be using non green energy some of the time. To call this Hydrogen project green is more green washing. 80 of the green energy is lost in the overall process -from creating the green energy to delivering the hydrogen/ammonia to Germany. And there are concerns regarding the Environmental Assessment process : -they are turning into rubber stamps ...and are not genuinely evaluating environmental issues. -there is poor community involvement - the comments made by other residents and environmental specialists are not available to view until after the comment period is closed. This is not true transparency. Residents need to be allowed all the information to understand the issues. The website clearly says that comments are available to view but fails to say - they are only available to view after the comment period is closed. Here is what it says : Please change it to mention when available to view. All comments received from the public consultation will be posted on the departments website for public viewing. The government officials say that the public is for these projects but here are the facts : When Premier Houston showed up in Pictou in April to support the Bear Head 100 Industrial WInd Turbine Project in Pictou - over 200 people turned up and most of them had serious concerns. Another info session was held in June and over 100 concerned residents showed up with similar concerns regarding that project as I have been stating here. A group of us have written to Deputy Minister Gatien and Premier Houston to have a meeting to voice our concerns but so far no meeting has been scheduled. There are many experts

who support the comments that I have been making. There is a great deal of hype and uncertainties with hydrogen development. All the exports say decarbonize your local area first. Use green wind energy for local use first. So far Ever WInd does not have any signed contracts from Germany to purchase the hydrogen/ammonia. What happens if Ever WInd fails to get contracts. if that is the case, It should be written in to any agreements that Nova Scotia would get to take over the projects for Nova Scotia energy use. Please do the right thing and do not approve this project for development. But I still hear the echo ...NO ONE IS LISTENING ....Please prove me wrong .... Premier Houston, Minister Halman and Minster Rushton please do your homework, look at the big picture, read up on the relevant scientific and economic information and see that this project and othersâ?Ts like it must not be approved. thanks

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Hello,

I received information regarding the Everwind Fuels proposal. I am concerned that Reid Road is being assessed as a primary access road for the project as other potential roads did not work out.

I have been a resident of Reid Road for 27 years. It is a quiet and peaceful street and if it became a primary access road that would cause great disruption to the neighbourhood. I am concerned that the EA submitted did not contain final details such as which exact roads will be access roads and that several roads were shown off of Plains Road but not named. I do not believe any EA should be approved until the access roads are clearly identified.

I know many residents of this small street are concerned about the potential of our street becoming an access road. There are also concerns with the lack of communication and clarity on what exact streets will be used as access roads. If Everwind Fuels wants to use Reid Road as an access point there needs to be further discussion as this will impact a number of families in the area.

If you could provide any feedback or clarity on Reid Road's role in the project that would be appreciated.

Thank you,

From:	Dhotmail.com	
To:	Environment Assessment Web Account	
Subject:	Proposed Project Comments	
Date:	July 4, 2024 10:49:41 PM	

#### \*\* EXTERNAL EMAIL / COURRIEL EXTERNE \*\*

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Project: windy-ridge-wind-power-project Comments: To whom it may concern, I am writing to acknowledge my strong opposition to the Windy Ridge project. I grew up in Belmont, and some of my fondest memories as a child are from my experiences on Belmont mountain with my family. From these experiences, I learned how to fish, hunt, canoe, camp, and identify trees and birds just to name a few. My passion for nature was cultivated on Belmont Mountain and surrounding areas, which inspired me to pursue an Environmental Science degree. After obtaining my bachelors degree, I returned to Belmont and purchased my first home. It was devastating to learn that the proposed project will completely change the place that I, and so many others in Belmont, Debert, and surrounding areas, grew up in and cherish. There is a very strong sense of place on the Debert and Belmont mountain, which comprises such a big part of the identity of the people who grew up in this area. This project has caught many off guard, and being a low income community, there are little resources to oppose multinational companies and projects such as EverWind. We live here because we love the serene and peaceful environment offered by rural living, and these massive developments proposed in our area is a massive threat to our livelihoods, with very little capacity to respond. I urge you to take a step back and evaluate the scale of developments in Colchester as a whole, instead of individual projects such as Windy Ridge, to have a landscape level understanding of the impacts and devastation that is the future of our area and the cumulative impacts that are inevitable. As an environmental advocate, I support cleaner energy sources, but this project is the epitome of greenwashing. This project is not helping us as a province or country to achieve our climate targets as we arent greening our own grid. In addition, it is extremely inefficient to convert wind energy into ammonia due to the numerous times the energy is being converted. The second law of thermodynamics states that energy cannot be created nor destroyed, but each time energy is converted from one form to another, there is a loss of energy to the system. It would be significantly more efficient to convert the kinetic energy to electrical energy in our grid, then to further transform this energy into ammonia. Not to mention that our own grid is heavily reliant on coal, meaning when there is lulls in wind energy production, Point Tupper will be deriving energy from coal. To add, the fact that we have to destroy ecologically sensitive areas that were once identified as a potential protected Wilderness Area to support green initiatives is alarming, and promotes false narratives that the province supports green projects. These two statements indicate the ammonia EverWind is producing is grey at best, NOT green. Given the instability of our own grid, we should be advocating to improve the condition and revert to green energy sources, rather than sending our resources elsewhere so they can reap the benefits of green energy at the expense of our beautiful and cherished natural landscapes. It is clear that this project is not for us. We were not consulted, merely informed and late at that, with no opportunity for the communities to be involved in the decision making process or project structure to support local project acceptance. There was no chance to hear concerns by the public and their responses and often there were different responses to the same questions. It was also unbelievable that in all of the Open Houses and meetings, it was hardly mentioned that the energy is going to be exported, leaving many people unaware that this project isnt supporting the decarbonization of our own grid. As a

young member of the community 25, I can speak for many in my age cohort in the area, and it is a blatant example of older generations exploiting the land for their own financial gain with no consideration for the environment or the younger generations that will later have to repair the damage or live with the devastation. Since this project is only minimally able to support renewable energy in NS yet is being used as a principal argument for this project, I call on the Minister to reject the Windy Ridge Wind Project. Name: Email:

@hotmail.com Address: Municipality: Belmont email\_message: Privacy-Statement: agree x: 63 y: 13

Environment Assessment Web Account
Middle Road Debert
July 5, 2024 8:40:57 AM

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I want to express how extremely disappointed and grossed about what has been "agreed" to be done to our land with your little windmill pilot! I have been in this community for most of my life, I am 47yrs old. I bought a piece of property that I'm taxed the shit out of every year with the hopes of living a country life. We have a train 100m from our home, plans that fly over 8am-8pm every day. We now have Purlator/FedEx and "unmarked" delivery services speeding passed our home now with the new fedex/amazon outlet at the air port. 500m is the government shooting range that they shoot from 6am-midnight (that's right, machine gun sounding in the middle of the night in the country) We also have all the country equipment with the strawberries, blueberries fields around, with tractors that go faster than a normal truck, and never slow down or the constant beeping of their loaders at 10pm in the berry season.... Now let's add all these other trucks hauling gravel, expanding our roads, ruining other people property that they are taxed to death on with the hopes of living a country life. Building new roads, damaging properties, making more commotion does not seem like a smart idea since you can't seem to be able to take care of what you have in Debert now! Fix the roads out here (there are sparks that fly under cars from dragging in front of our home!) I honestly hope this does not go as planned, they need to "find another way" to make their millions and leave us country folks alone.

Environment Assessment Web Account
Windy Ridge Wind Turbine Project
July 5, 2024 10:30:26 AM

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While so many eyes have recently been focused on attaining wind power prizes from the skies, I've been roaming familiar back roads in Colchester and Cumberland counties. What my eyes are observing at ground level, is the significant and disturbing loss of water in locations that have long had naturally-occurring water in them. Our water-dependent landscapes, as we've always known them, are rapidly drying up!

I must offer legitimate concerns that construction of these huge wind turbines on the Cobequid Mountain range is going to negatively impact water tributaries of that entire area. We cannot afford to jeopardise or compromise all that lies beneath those areas intended to be constructed on. Water conservation should never be sacrificed in the interest of labelling a dubious large project as a green energy source. Water is needed for life-sustaining existence. We must endeavour to protect and conserve the water resources we currently have left on this planet. Future generations need us to make wise, knowledgeable decisions in this regard.

Too many environment-impacting projects are crossing the desks of our Nova Scotia Department of Environment and Climate Change. It is time for strong provincial leadership to deliver a clear message that Nova Scotia is not open for pillage and plunder of natural resources. It is time to actively engage in positive environment protection and conservation strategies. Please protect local watersheds from sustaining any further damages!

Respectfully,

Honourable Timothy Halman Minister of Environment and Climate Change

PO Box 441

Halifax, Nova Scotia

B3J 2P8

Re: Windy Ridge Wind Power Project Environmental Assessment

Dear Minister Halman:

I am writing in opposition to the Windy Ridge Wind Power Project (Windy Ridge) and asking you to not approve the Environmental Assessment (EA) for the following reasons:

- 1. Your department acknowledged that the EA process in Nova Scotia requires improvement and in response launched a project in September 2023 to modernize and update the regulations. Lorie Roberts, an executive in your department reported in a CBC interview that "the world has changed since 2008, the last time the regulations were considered". She goes on to say that "we have a lot of renewable energy projects coming into the process and also a lot of innovation happening out there in the business world and so it brings some different types of projects that we might have seen in the early 2000s". Your government's news release announcing the EA update states" the updated EA process will take into consideration cumulative impacts, diversity, equity and inclusion, independent review, climate change and Netukulimk, the Mi' kmaw concept of living sustainably in the land through respectful co-habitation. These are all critical consideration to the assessment of the Windy Ridge project and your review of this project should not be completed prior to the conclusion of the EA modernization process". This Wind project if it proceeds will be the largest on in Nova Scotia. The risk to our environment, quality of life, biodiversity, wildlife habitat, ecosystems is huge. Therefor the EA review should not be completed until the improvements your government acknowledges are required to the process are implemented. Nova Scotia's deserve protection from your department with a more robust and independent process than the current one.
- 2. The EA submissions on page 1 states that "The development of this project will provide renewable energy required to produce certified green hydrogen and ammonia in the region, supporting the clean renewable initiative ". However, the proponent does not explain how this support will be provided. It is my belief that

this project will put provincial energy targets at risk. This project will compete with renewable projects where the energy is directed at our local grid for valuable resources and land. Page 3 of the document states that" Hydrogen will be blended with atmospheric nitrogen to synthesize ammonia, producing substantially lower greenhouse gas emissions than those of conventical ammonia production methods. Reduction of emissions on a global scale will be supported through international exportation of green ammonia that may be used as a component in fertilizer and fuels". Other reports have indicated that ammonia which is easier to transport than hydrogen will be converted back to hydrogen when it is received in Europe. As you and your department must be aware, scientist and experts have indicated that the process described by the proponent is untested, inefficient and expensive. of the National Climate at Environmental Defence Canada has stated that "Using renewable energy to produce hydrogen, which then get converted in ammonia is a very inefficient use of renewable energy. Each step of that supply chain is complex and expensive". She goes on to say that "in an era in which we are trying to decarbonize in smart ways, this is not a smart way to use another expert on Hydrogen said, "The idea renewable power". of using wind energy for hydrogen is absurd from a climate perspective, particularly whilst you have still got coal or fossil fuel used locally in the electricity grid". The EA document goes on to indicate that in addition to the exported ammonia " an agreement is expected to be established with NSPI for the use of green energy from the Project beyond that consumed by the Point Tupper Green Hydrogen/Ammonia project". However, this agreement has not been completed and there is no indication of when the agreement will be established, how much energy will be contributed to the local grid and at what cost. Everwind representatives have indicated that as much as 20% of the energy produced "might" be directed at the local grid at some point in the future. I submit that you should not be approving a project that will compete for resources of projects which are producing energy which will go directly in our grid. The transportation and storage of both hydrogen and ammonia also risk our environment as a result of leaks. Our natural resources should not be sacrificed and risked for the **purpose** of this project.

3. The **Cumulative Impact** of this project in the development area has been minimized in the EA document and not appropriately considered. There are 3 approved projects and one proposed near Windy Ridge. The Blueberry Acres proposed project would produce energy for the local grid so should not be negatively impacted by the approval of Windy Ridge, where primary purpose is to export energy. When completed these projects will result in the placement of 108 massive industrial turbines in a relatively small area. Currently the largest wind turbine project in Nova Scotia has approximately 34 wind turbines. Your department has indicated that cumulative impact was an area that needed to be considered in your process of modernizing the EA process. Given that there has never been an area in this province which will be a populated with this scale of massive concrete industrial wind turbines it is critical that your regulations take into consideration all risk associated with cumulative impact prior to approval of this project. For example, the EA document indicates there could be 200 trucks needed per day during the peak construction period. Construction period is estimated as 20 months. It is assumed proportionate to their size that the other projects which with the construction periods overlapping will require similar number of large trucks. That would be approximately over 400 trucks per day. These trucks would be largely making use of Highway 4 which since the building of the Cobequid Pass has restricted truck traffic due to safety concerns. Prior to restricting truck traffic this road was referred as "Death Valley". Yet the EA document concludes that risk related to truck transportation is low. The document makes reference to the extensive use of the area for hiking, biking, snowmobiles etc and indicates similar uses of Higgins and Kmtnuk projects. It should be noted that recreational activities is a prime driver of economic activity and investment in the project area. Page 72 of the document indicates that the area can continue to be used for these activities during the lifespan of the project. Another section of the document indicates there will be restrictions to access during the construction phase. Again, the EA document concludes low risk related to recreation and tourism.

4. I believe that public engagement has been misrepresented in the EA document. I have attended 7 of the 9 sessions outlined on page 46 in Table 3.3. Public response to the project was overwhelming negative at all of the sessions. The only people I spoke to who were supporting the project were either working for the proponent ( RES or Everwind), related to an employee or expected to be a contractor of the projects. At the November 14 presentation to council community concerns were dismissed by a company representative as NIMBY related that they had been dealing with for years. The disrespect and ignoring of legitimate concerns and comments of community has been exhibited throughout the engagement process. The table on 3.3 indicates only 47 as the public attendance at the November 16 Council presentation. It does not mention that the attendance in the council chambers was limited due to the size of the room and restrictions imposed by the municipality. It also does not mention the many community members who were on the sidewalk in front of the Municipal Chambers during the meeting with their voices raised in protest to the Windy Ridge project. The document suggest that turbines were removed from visual impact on Folly Lake because of community engagement.

In reality, the Everwind Brochure which was circulated in mailboxes throughout Colchester County mailboxes made a commitment that there would be no wind turbines seen from Folly Lake. Company representatives in discussion with me at the November public meeting admitted that this was not true, and they would remedy. They took my phone number and committed to following up with me on the resolution but to date I have not heard from anyone on this issue. This lack of good faith and false representations has lead many in the community to question the integrity and intentions of the proponent. I also was one of the 11 community members who attended the open office hours the proponent hosted as referred to on page 46. The low attendance would suggest a lack of community concerns for the project. When I attended the office hours session and questioned the 1 RES employee hosting the office hours. I asked him how they informed the community of the office hours. He indicated they had only communicated by e-mail to those who had provided their e-mail address at the November 9<sup>th</sup> and 10<sup>th</sup> open house. suggested that many in the community did not know of the event and that for the remaining 3 office hours, they should consider other ways of informing the public including a newspaper add. In response to my suggestion, I received an e-mail from a RES employee indicating that they would not be doing any additional communication to the public advising of the office hours. My conclusion on their lack of interest in publicising the office hours was that they were not really interested in hearing from the public, but were motivated by an interest in referring to them in the EA doc and an appearance of community engagement. Another example of the lack of transparency and true "engagement and respect" of the community was when at the February 12,2024 presentation and Q&A the facilitator indicated that there could be no discussion or questions related to the purpose of the project. Almost all of those who asked questions or made comments at the session again were not supportive of the project. A number did have questions on the purpose of the project and were questioning how we would benefit given the risk to our community of exporting ammonia to Germany in what experts indicated is a very risky and expensive process. But the Everwind paid facilitator was firm that they would not discuss the community concerns related to the purpose of the project using our community resources.

5. I have concerns about representations made by the proponent on page 2 of the document. The EA documents report that "EWF is North America's leading independent green hydrogen developer". My research indicates that Everwind Fuels was incorporated in February 10,2022 and has not yet developed any green hydrogen. I am very concerned that this type of confusing and potentially misleading assertion by a proponent could bring to question the validity of any

commitments made to the Community, governments and other stakeholders. You have a responsibility minister Halman to ensure you are making decisions in the interest of all Nova Scotian's not in the interest of foreign controlled corporations.

- 6. The Project area is in the heart of an essential biodiversity corridor between the Portapique River Wilderness Area and the Wentworth Valley Wilderness Area. The Minister should reject the Environmental Assessment because the Proponent has not proven that they can mitigate the harmful impacts of the Project to biodiversity, ecological connectivity, the Nova Scotia Mainland moose and their core habitat and corridor and neighboring parks and private land trust conservation properties
- 7. The Project Area does not have many of the traditional draws that **drive investment and construction in a community. The community surrounding this project** is known and valued for its recreational offerings, ecosystems and scenic / serene landscapes as has been referenced in other sections of this response. These are the attributes which motivate and drive the purchase of properties and economic development in this area. This makes the location unique and land and property values more at risk from the negative impact on recreation, biodiversity, visuals etc. from wind turbines The EA Documents conclusions that land use and values and recreation and tourism will not be negatively impacted is not correct.
- 8. Very alarmed and concerned with reports this week that the proponent has identified grid capacity and transportation infrastructure not sufficient in this province to accommodate the scale of proposed projects which Windy Ridge will be supplying energy. It appears that the proponent is looking to taxpayers and rate payers to fund the infrastructure upgrades required. I urge the Minister to not approve this project until it is clear what upgrades in NS grid and transportation systems are required and who will be responsible for funding. It is the proponent who will most significantly benefit from the returns of this proposed project and the proponent should be responsible for any risk and cost of investments required. This issue needs to be resolved and all Nova Scotia's need to understand what cost your government is committing our dollars to before any approvals are granted. How can a project that risk of our natural environment ,cost millions( hope not billions) of taxpayer and rate payers dollars and see most of the return directed at foreign investors be a "good deal" for Nova Scotian's.

I urge you and your department to take your responsibility to **protect** the environment of this wonderful Province very serious and reject this project.

#### Respectfully submitted

Folly Mountain, NS

Honourable Timothy Halman Minister of Environment and Climate Change

PO Box 441

Halifax, Nova Scotia

B3J 2P8

Re: Windy Ridge Wind Power Project Environmental Assessment

Dear Minister Halman:

I am writing in opposition to the Windy Ridge Wind Power Project (Windy Ridge) and asking you to not approve the Environmental Assessment (EA) for the following reasons:

- Your department has committed to an EA modernization process that will provide more robust and diligent safeguards to protect our environment, communities, wildlife and habitat. Given the size and scale of this project and risk as our outlined throughout the EA document, EA review should not be considered until the modernization process is completed.
- 2. The **purpose** of this project as identified in the EA document is primarily to export Ammonia to Europe. There are many articles and papers available by industry experts that indicate that the process described is untested, inefficient and expensive. We have limited natural resources in this small province and the prime area's for wind development should not be sacrificed for projects which are not going to contribute to provincial energy targets (and will actually compete with them).
- 3. The **Cumulative Impact** of this project in the development area has been minimized in the EA document and not appropriately considered. There are 3 approved projects and one proposed near Windy Ridge. The Blueberry Acres proposed project would produce energy for the local grid so should not be negatively impacted by the approval of Windy Ridge, where primary purpose is to export energy. When completed these projects will result in the placement of 108 massive industrial turbines in a relatively small area. Currently the largest wind turbine project in Nova Scotia has approximately 34 wind turbines. Your department has indicated that cumulative impact was an area that needed to be considered in your process of modernizing the EA process. Given that there has

never been an area in this province which will be a populated with this scale of massive concrete industrial wind turbines it is critical that your regulations take into consideration all risk associated with cumulative impact prior to approval of this project.

- 4. I am a retired professional Forester with over 30 years working for the Department of Natural Resources and Renewables. I am a resident of the area where the project is proposed and have for over 40 years hunted, skied, snowmobiled, hiked, biked and treasured the natural beauty of this area. I believe I have an understanding and perspective of the key components of the area which are not adequately reflected in the EA document. The Project area is in the heart of **an essential biodiversity** corridor between the Portapique River Wilderness Area and the Wentworth Valley Wilderness Area. The Minister should reject the Environmental Assessment because the Proponent has not proven that they can mitigate the harmful impacts of the Project to biodiversity, ecological connectivity, the Nova Scotia Mainland moose and their core habitat and corridor and neighboring parks and private land trust conservation properties
- 5. The proponent has identified grid capacity and transportation infrastructure not sufficient in this province to accommodate the scale of proposed projects which Windy Ridge will be supplying energy. It appears that the proponent is looking to taxpayers and rate payers to fund the infrastructure upgrades required. I urge the Minister to not approve this project until it is clear what upgrades in NS grid and transportation systems are required and who will be responsible for funding. It is the proponent who will most significantly benefit from the returns of this proposed project and the proponent should be responsible for any risk and cost of investments required. This issue needs to be resolved and all Nova Scotia's need to understand what cost your government is committing our dollars to before any approvals are granted.
- 6. Several groups in this Province have asked the government to complete a **landscape level planning process** to best determine what locations in the province are best suited for large scale industrial wind development and what province wide restrictions should be implemented. If you and your government are going to be promoting and committed to wind development in this Province then it is your responsibility to ensure that the projects are located in area's where risk to environment and quality of life are minimized and that all community residents are protected by province wide regulations related to set backs, noise, flicker, visual impact etc.. No further approval of large-scale industrialized wind development should be approved until this planning process is completed.

Please **protect** the environment of this wonderful Province and reject this project.

Respectfully submitted



# <u>Windy Ridge Wind Power Project Environmental Assessment</u> <u>Registration Document (EARD) –</u> <u>Comments from Ecology Action Centre</u>

July 2024

The Ecology Action Centre is an environmental charity based in Mi'kma'ki/Nova Scotia. We have a leadership role in working on critical environmental issues from biodiversity protection to climate change to environmental justice. Grounded in over five decades of deep environmental change work and fueled by love and grief, EAC takes a 50-year perspective on what is needed to build towards a time of thriving and flourishing. We work to equip human and ecological communities for resilience and build a world where ecosystems and communities are restored not just sustained.

**Overall Comments** 

# Public comment period

Ecology Action Centre staff have only been able to comment on some aspects of this EARD. This is in part due to the limitations of our expertise – we only hold knowledge in certain subject areas and have commented on those. However, this is also because the 30 day comment period is too short to comment completely on any EARD, including this one. Public comment periods for EARD should be 60 days, minimum. Additional time would have allowed us to hone our comments further and make additional, relevant comments.

# **Crown Land Use Planning**

EAC has repeatedly recommended to government that a holistic approach to Crown land use planning, taking into consideration all the competing demands for Crown land (most of which are listed in the updated purpose of the *Crown Lands Act*). We reiterate this advice again here. The potential to overwhelm our limited Crown land base with oneoff projects that are considered in isolation from one another and from other responsibilities including wildlife habitat protection and connectivity is very real and very concerning. We believe the lack of Crown Land use planning affects this project, meaning the proponent is now ensnarled in this provincial problem. The idea of a moose corridor



ecologyaction.ca

working group can be seen as a symptom of decades of not planning for the recovery of Mainland Moose on Crown land and beyond.

# Need for the Green Ammonia

The EARD indicates that the power harnesses at the Windy Ridge power project will be produce "green hydrogen and ammonia in the region, supporting the clean renewable energy initiative. EAC's understanding of the current state of the project is that only or primarily "green" ammonia will be produced, and will only be for export, at first. The main market for the proponent's "green" ammonia current is for the creation of ammoniabased fertilizer in Europe. This does not contribute to decarbonizing Nova Scotia's energy grid, and in fact could contribute to the over-nitrification of ecosystems through fertilizer runoff, which exacerbates climate change. See

https://www.unep.org/news-and-stories/story/four-reasons-why-world-needs-limit-nitrogenpollution

Fertilizers themselves contribute a substantial amount to global CO2 and N2O emissions, and run-off from fertilizers contributes to nitrogen pollution, leading to its own impacts (e.g., eutrophication and algal blooms threaten aquatic biodiversity. See <u>https://www.pnas.org/doi/pdf/10.1073/pnas.2121998119</u>

Nitrogen pollution as a result of ammonia-based fertilizers also pose a serious threat to local food systems as polluted topsoil cannot be easily, or quickly remedied. These impacts can compromise local/regional efforts towards food security and food sovereignty as they degrade the environment for future generations.

When the Windy Ridge wind power project is used to create hydrogen, which is converted to ammonia, and sold for nitrogen fertilizer, it actually risk exacerbating climate change and biodiversity loss.

Specific Comments

# Purpose of the Project

The proponent should be consistently clear that the purpose of the project is to have the Point Tupper plant "powered" by electricity generated at Windy Ridge is to produce ammonia, not hydrogen. Also, that ammonia will only have a relative reduction of emissions on a global scale if its' production *and transport* are less than conventionally produced ammonia for fertilizer and fuels. Currently the proponent plans to transport the ammonia by ship to Europe. The climate impacts of this export should factor into the equation of its overall greenhouse gas emissions.



# **Wetlands**

There is concern regarding the extent to which the proponent has proposed alterations of wetlands for this project.

Globally, over 64% of wetlands have been lost due to human activity since 1900, and as we lose wetlands, we also lose their incredible benefits and services that they provide to both humans and the natural environment. A GPI Atlantic study (2000), on Nova Scotia's water resource values wetlands provide an estimated \$7.9 billion worth of benefits in ecosystem services to Nova Scotians annually. Given the value over the long term, we have concerns about the direct and indirect impacts of this project and how it will contribute to the continued loss and destruction of natural wetlands. The loss or destruction of wetlands can result in: degradation, fragmentation and loss of wetland habitat and local biodiversity, deterioration of water quality from lack of natural water purification, increased sedimentation and soil erosion, changes in natural hydraulic systems and disruption to the local watershed, reduction in water supply and water storage, higher threat of flooding, and reduction in groundwater recharge and higher vulnerability to droughts.

The proponent discusses plans to alter portions of 14 Wetlands of Special Significance (WSS). This is highly concerning. The Nova Scotia Wetland Conservation Policy has an important goal of no loss in Wetlands of Special Significance. It is everyone's responsibility to contribute to achieving this goal. The proponent should avoid all alterations of WSSs. There is also concern that the discussions by the proponent do not fully consider the important value of treed wetlands. For example, according to Table 9.7, the estimated percent wetland area (of LAA) to be lost is 11%, 8% and 50% for treed swamps, treed fens and treed bogs respectively, totaling 16 ha of the 29 ha (i.e., 55%) of the estimated area of all the wetland to be lost in PDA (ha).

These wetlands are exceptionally good carbon sinks (see Kendall et al. 2021 for research in Nova Scotia on this subject). The results from a local study "strongly suggest that forested wetlands are avian diversity hotspots and, as such, key habitats for bird conservation in Nova Scotia. Forested wetlands in general had more bird species, more individuals, and higher abundance of several species and guilds of conservation concern than mature and regenerating upland sites" (Brazner & MacKinnon, 2020). In another study on bird communities in forested wetlands in Nova Scotia, it was found that "of the 208 documented breeding bird species in Nova Scotia, [the researchers] found evidence (mainly singing males) that 95 (46%) were breeding in the 229 FWs [they] surveyed. Given that [their] surveys were restricted to a single visit at only two points within each wetland, this is no doubt a conservative estimate of the diversity of breeding birds that are using these habitats.....These results and other studies suggest that a large number of bird species depend on or at least utilize [forested wetlands] in Nova Scotia during the



breeding season and that they may play important roles in the conservation of several atrisk species" (Brazner & Achenbach, 2019). However, despite their high value, these types of wetlands "are being converted to other uses at a higher rate in Nova Scotia than other wetland types" (Brazner & Achenbach, 2019). These studies demonstrate that treed wetlands need to stay intact not just to help mitigate climate change, but also to support wetland functions, including to maintain biodiversity.

# Turbines

The lights on the turbines to alert aircraft should be the type that are only on when activated by signals from aircraft. This will reduce light pollution for animals traveling at night, and for people. This conforms with a European standard and may be acceptable under Transport Canada's requirements for wind turbines.

# Moose

We appreciate that the proponent has "throughout the iterative design process of the Project, areas of particularly high-quality habitat were avoided (e.g., old growth, wetlands, and concentrations of moose observations, see Figure 2.2)." This commitment to avoiding damage to high-quality habitat wherever possible is important. **EAC believes that no high-quality moose habitat should be altered or destroyed in this project, and that medium-quality habitat should be conserved or restored whenever possible, as well as being connected to moose habitat within the project and beyond its borders.** 

Also, avoiding the use of certain parts of the Crown land in the project area could create opportunities for land conservation in those areas, which would also benefit moose.

The moose corridor working group concept holds some promise if it builds on existing work already done on moose in Nova Scotia. The proponent would be stepping into an issue that has a long history in Nova Scotia with some long-standing road blocks.

We are supportive of the decommissioning of some access and existing roads. This would reduce multiple threats to moose.

# Wood Turtle

Wood Turtle surveys were conducted at the correct time of year in the field surveys. The EARD recognizes that these surveys cannot conclusively determine that Wood Turtles are not found in the project area or are using habitat that could be impacts by the project. We recommend that the proponent continue to search of Wood Turtles as per the DNRR protocol and consider the potential for Wood Turtle over-winter sites on some brooks.







Environmental Assessment Branch Department of Environment and Climate Change PO Box 442 Halifax, NS B3J 2P8

July 5, 2024

RE: Windy Ridge Wind Farm Letter of Support

To Whom it May Concern,

We are writing on behalf of Optiv Energy, to express support for the Windy Ridge Wind Project.

We have confidence in EverWind Fuels, its partners, and the renewable energy industry, and have steadfast belief that the project can and will be undertaken with a high level of environmental stewardship while continuing to accelerate the decarbonization of the global energy landscape.

This is a win for Nova Scotia, the environment, and the local economy. Taxpaying businesses like ours directly benefit from projects like Windy Ridge, and the skills and experiences we have developed here in Atlantic Canada are deployed across North America.

We are excited to see the Project produce its first kWh.

Sincerely,

President

VP, Operations

VP, Corporate Development

352 East River Road New Glasgow, Nova Scotia

From:	@gmail.com
To:	Environment Assessment Web Account
Subject:	Proposed Project Comments
Date:	July 5, 2024 1:20:30 PM

\*\* EXTERNAL EMAIL / COURRIEL EXTERNE \*\*

Exercise caution when opening attachments or clicking on links / Faites preuve de prudence si vous ouvrez une pièce jointe ou cliquez sur un lien

Project: windy-ridge-wind-power-project Comments: Absolutely do not want this on my peace road!!!!My property value will decrease due eo construction and traffic.0 benefit to residents and n.s. Several years of turmoil....I am retired and plan on selling in the near future. This will devalue my property....what family with children and pets would want to buy my property. Such a political joke....And I know another arguement will be employment generated....Foreigners and Immigrants who will send there money out of country....thats who will be hired.... The Minister and Prime Minister are pathetic.... Name: Email:

@gmail.com Address:Municipality: Debert N.S. email\_message:Privacy-Statement: agree x: 45 y: 14

# **Maritime Aboriginal Peoples Council**



- 🗋 Leaders Congress
- MAPC Commissions/Projects
- MAARS Secretariate
- IKANAWTIKET SARA
- MAPC Administration

#### MAPC Regional

Administrative Office 80 Walker Street, Suite 3 Truro, Nova Scotia B2N 4A7

 Tel:
 902-895-2982

 Fax:
 902-895-3844

 Toll Free:
 1-855-858-7240

 Email:
 frontdesk@mapcorg.ca

Governmental APRO Councils

#### Native Council of

Nova Scotia P.O. Box 1320 Truro, Nova Scotia B2N 5N2

 Tel:
 902-895-1523

 Fax:
 902-895-0024

 Email:
 chieflaugustine@ncns.ca

## New Brunswick Aboriginal

Peoples Council 320 St. Mary's Street Fredericton, New Brunswick E3A 2S4

Tel:	506-458-8422
Fax:	506-451-6130
Email:	chief@nbapc.org

#### Native Council of

#### Prince Edward Island 6 F.J. McAuley Court

Charlottetown Prince Edward Island C1A 9M7

 Tel:
 902-892-5314

 Fax:
 902-368-7464

 Email:
 chief@ncpei.com

July 5th, 2024

Environmental Assessment Branch P.O. Box 442 Halifax, Nova Scotia B3J 2P8

# **RE:** Windy Ridge Wind Power Project

To Whom It May Concern,

On behalf of the Native Council of Nova Scotia (NCNS), the Maritime Aboriginal Aquatic Resources Secretariate (MAARS) is providing comments to the Environmental Assessment Branch of the Nova Scotia Department of Environment and Climate Change regarding the Environmental Assessment Application for the Windy Ridge Wind Power proposed undertaking.

Firstly, given the cultural significance of Mainland Moose to Mi'kmaq people, concerns are raised over potential interactions with moose throughout this development given that habitat fragmentation due to industrial developments has been identified as a key threat to Mainland Moose. Given that much of the project area overlaps with potential core habitat for Mainland Moose and the surveys completed, there is active use in the study area by Mainland Moose. Given the project area being within core habitat and the study area containing suitable habitat to support Mainland Moose, we recommend that monitoring in this area continues throughout the Windy Ridge Wind Power's project lifetime to monitor whether there are behavioural or other related impacts to this significant species.

Introductory vectors for invasive alien species (IAS) are one concern given that IAS are predisposed to establish themselves in recently disturbed areas due to the localized eradication of natural predators and the removal of resource competition from anthropogenic activity. Activities such as grubbing are one of such heavy stressors on the environment that will provide an opportunity for IAS to establish themselves. As the environment is stressed, there is an increased potential for IAS to be successfully introduced via vehicles, mobile facilities, on the boots of workers, and other vectors if no preventative

The Maritime Regional Aboriginal Leaders Intergovernmental Council of Aboriginal Peoples Continuing to Reside on Traditional Ancestral Homelands measures are taken. MAARS requests Windy Ridge Wind develop procedures to mitigate introductory vectors for IAS. This could include mandated practices to clean mobile facilities and vehicles prior to entry of the project site, to ensure they do not act as introductory vectors. Additionally, we request clarification if an IAS survey has been performed, and if not, that one be conducted.

Within Section 7.2.2.3 Species at Risk, there is discussion about the proximity of this project to watersheds and rivers which are known to contain Inner Bay of Fundy (iBoF) Atlantic Salmon (*Salmo salar* pop. 1). Based on information gathered through the Salmon Comparative Assessment Project under the Maritime Aboriginal Peoples Council (MAPC), there have been positive environmental DNA (eDNA) detections of iBoF salmon on the Folly River within 1.5 kilometres of the suggested placement for Turbine T40. Given the highly sensitive nature of this species, and these positive detections of endangered iBoF salmon MAARS has significant concerns with this level of development within such proximity to the Folly River. This area is also within the designated Critical Habitat for iBoF salmon, as listed within the "Recovery Strategy for the Atlantic Salmon (Salmo salar), inner Bay of Fundy populations [Final] 2010". Given the potential for sedimentation to be pushed downstream from the turbine developments which are close to the river, we raise significant concern over the potential impacts on this endangered species. MAPC-MAARS is very familiar with this area through current and past project work completed in the adjacent watersheds. As such, we welcome any additional discussion from the proponent on potential mitigation opportunities within this area.

Wetland habitats are known provide important ecosystem functions, as well as habitat for numerous aquatic, terrestrial, and plant species. As such any impacts to the functions of these habitats can have significant effects on the ecosystem. With the importance of these habitats and given the stated potential impacts on Wetlands of Special Significance (WSS), MAARS requests to review any wetland compensation plans when they are available. As well, we request to review the finalized layout and completed wetland assessments for this upcoming field season when this is available for review.

We would like to take this opportunity to reiterate that it is important for all proponents of projects to understand that the Off-Reserve Aboriginal Community represented by the NCNS is included within the definition of "Indian" under Section 91(24) of the *Constitution Act, 1982*. The Supreme Court of Canada in a landmark decision in *Daniels v. Canada (Indian Affairs and Northern Development)*, 2016 SCC 12. declared that "the exclusive Legislative Authority of the Parliament of Canada extends to all Indian, and Lands reserved for the Indians" and that the "word Indians' in s.91(24) includes Métis and non-Status Indians"<sup>1</sup>. Since 2004, in multiple decisions passed by the Supreme Court of Canada: *Haida Nation*<sup>2</sup>, *Taku River Tlingit First Nation*<sup>3</sup>, and Mikisew Cree First Nation<sup>4</sup>, has established that,

Where accommodation is required in decision making that may adversely affect as yet unproven Aboriginal Rights and title claims, the Crown must balance Aboriginal concerns

<sup>&</sup>lt;sup>1</sup> Daniels v. Canada (Indian Affairs and Northern Development), 2016 SCC 12, [2016] 1 S.C.R. 99

<sup>&</sup>lt;sup>2</sup> Haida Nation v. British Columbia (Minister of Forests), (2004), 2 S.C.R. 511

<sup>&</sup>lt;sup>3</sup> Taku River Tlingit First Nation v. British Columbia (Project Assessment Director), (2004), 3 S.C.R. 550

<sup>&</sup>lt;sup>4</sup> Mikisew Cree First Nations v. Canada (Minister of Canadian Heritage), (2005), 3 S.C.R. 388

reasonably with the potential impact of the decision on the asserted right or title and with other societal interests.

Further, both the Government of Nova Scotia and the Government of Canada are aware that the "Made in Nova Scotia Process" and the *Mi'kmaq-Nova Scotia-Canada Consultation Terms of Reference* does not circumvent the Provincial Government's responsibility to hold consultations with other organizations in Nova Scotia that represent Indigenous Peoples of Nova Scotia. While the proponent may have to engage with the thirteen Mi'kmaq First Nations through the Assembly of Nova Scotia Mi'kmaq Chiefs, represented by the Kwilmu'kw Maw-klusuaqn Negotiation Office (KMKNO), the KMKNO does not represent the Off-Reserve Aboriginal Community who have elected to be represented by the NCNS since 1974.

We assert that the Off-Reserve Aboriginal Communities, as 91(24) Indians, are undeniably heirs to Treaty Rights and beneficiaries of Aboriginal Rights as substantiated by Canada's own Supreme Court jurisprudence. As such, there is absolutely an obligation to consult with the Off-Reserve Community through their elected representative body of the NCNS. The Crown's duty to consult with all Indians extends beyond that only with Indian Act Bands, or as through the truncated Terms of Reference for a Mi'kmaq Nova Scotia Canada Consultation Process.

For contextual purposes, for over forty years, the three Native Council partners of the Maritime Aboriginal People's Council (MAPC) have continued to be the Aboriginal Peoples Representative Organizations representing and advocating for the Rights and issues of the Mi 'kmaq/Wolastoqiyik/Peskotomuhkati/Section 91 (24) Indians, both Status and non-Status, continuing to reside on their unceded Traditional Ancestral Homelands. In the early 1970s, the communities recognized the need for representation and advocacy for the Rights and Interests of the off-Reserve community of Aboriginal Peoples, "the forgotten Indian". Women and men self-organized themselves to be the "voice to the councils of government" for tens of thousands of community members left unrepresented by Indian Act-created Band Councils and Chiefs. Based on the Aboriginal Identity question, Statistics Canada (2016 Census - 25% sample) enumerate 21,915 off-Reserve Aboriginal Persons in New Brunswick, 42,145 in Nova Scotia, and 2,210 in Prince Edward Island.

Each Native Council in their respective province asserts Treaty Rights, Aboriginal Rights, with Interest in Other Rights confirmed in court decisions, recognized as existing Aboriginal and Treaty Rights of the Aboriginal Peoples of Canada in Part II of the Constitution Act of Canada, 1982. Each Native Council has established and maintains Natural Harvesting Regimes, and each have a co-management arrangement with DFO for Food, Social, and Ceremonial use of aquatic species, through the: Najiwsgetaq Nomehs (NBAPC), the Netukulimkewe'l Commission (NCNS), and the Kelewatl Commission (NCPEI).

The Native Council of Nova Scotia was organized in 1974 and represents the interests, needs, and rights of Off-Reserve Status and Non-Status Section 91(24) Indians/Mi'kmaq/Aboriginal Peoples continuing on our Traditional Ancestral Homelands throughout Nova Scotia as Heirs to Treaty Rights, Beneficiaries of Aboriginal Rights, with Interests to Other Rights, including Land Claim Rights.

The Native Council of Nova Scotia (NCNS) Community of Off-Reserve Status and Non-Status Indians/Mi'kmaq/Aboriginal Peoples supports projects, works, activities and undertakings which do not significantly alter, destroy, impact, or affect the sustainable natural life ecosystems or natural eco-scapes formed as hills, mountains, wetlands, meadows, woodlands, shores, beaches, coasts, brooks, streams, rivers, lakes, bays, inland waters, and the near-shore, mid-shore and off-shore waters, to list a few, with their multitude of in-situ biodiversity. Our NCNS Community has continued to access and use the natural life within those ecosystems and eco-scapes where the equitable sharing of benefits arising from projects and undertakings serve a beneficial purpose towards progress in general and demonstrate the sustainable use of the natural wealth of Mother Earth, with respect for the Constitutional Treaty Rights, Aboriginal Rights, and Other Rights of the Native Council of Nova Scotia Community continuing throughout our Traditional Ancestral Homeland in the part of the Mi'kma'ki now known as Nova Scotia.

We would appreciate an opportunity to engage on the Windy Ridge Wind Power undertaking directly with the proponent, Windy Ridge Wind. We look forward to further dialogue as we continue to advocate for the rights of Off-Reserve Status and Section 91(24) Indians/Mi'kmaq/Aboriginal Peoples of Nova Scotia. To continue to represent the interests and needs of the off-Reserve Aboriginal Community in Nova Scotia, we would like to request the opportunity to participate in early engagement in future Environmental Assessment Reviews.

Advancing Aboriginal Fisheries and Oceans Entities Best Practices, Management, and Decision-making

Habitat Impact Advisor, MAARS

Executive Director, MAARS & MAPC Projects

CC:

Chief & President, NCNS Netukulimkewe'l Commission, NCNS Honourable Timothy Halman Minister of Environment and Climate Change

PO Box 441 Halifax, Nova Scotia

B3J 2P8

Re: Windy Ridge Wind Power Project Environmental Assessment

Dear Minister Halman:

This submission of written comments is in response to the Environmental Assessment Registration Document provided for the Windy Ridge Wind Power Project. Protect Wentworth Valley (PWV), is a group of volunteer community members who have concerns regarding this project and the proposed location. We desire that the special ecology and biodiversity of the Project area be protected, and where sustainable, support human enjoyment of it now and for generations to come. We believe that the size, location, extent, impacts, risk and cost of any project are critical considerations and that they should proceed only when the benefits of renewable energy are sustainable and developed with consideration to the many factors that contribute to the quality of life of a community and Province. The Minister should reject this Environmental Assessment because of the likelihood that it will cause adverse effects and environmental impacts that cannot be mitigated by the Proponent.

As follows are our primary concerns:

1. Your department acknowledged that the EA process in Nova Scotia requires improvement and in response launched a project in September 2023 to modernize and update the regulations. Lorie Roberts, an executive in your department reported in a CBC interview that "the world has changed since 2008, the last time the regulations were considered". She goes on to say that "we have a lot of renewable energy projects coming into the process and also a lot of innovation happening out there in the business world and so it brings some different types of projects that we might have seen in the early 2000s". Your government's news release announcing the EA update states" the updated EA process will take into consideration cumulative impacts, diversity, equity and inclusion, independent review, climate change and Netukulimk, the Mi' kmaw concept of living sustainably

in the land through respectful co-habitation". These are all critical consideration to the assessment of the Windy Ridge project and your review of this project should not be completed prior to the conclusion of the EA modernization process. This Wind project if it proceeds will be the largest in Nova Scotia. The risk to our environment, quality of life, biodiversity, wildlife habitat, ecosystems is huge. Therefore, the EA review should not be completed until the improvements your government acknowledges are required to the process are implemented. Nova Scotian's deserve protection provided by your department with a more robust and independent process than the current one.

2. The EA submissions on page 1 states that "The development of this project will provide renewable energy required to produce certified green hydrogen and ammonia in the region, supporting the clean renewable initiative ". However, the proponent does not explain how this support will be provided. It is our belief that this project will put provincial energy targets at risk. This project will compete with renewable projects where the energy is directed at our local grid for valuable resources and land. Page 3 of the document states that" Hydrogen will be blended with atmospheric nitrogen to synthesize ammonia, producing substantially lower greenhouse gas emissions than those of conventical ammonia production methods. Reduction of emissions on a global scale will be supported through international exportation of green ammonia that may be used as a component in fertilizer and fuels". Other reports have indicated that ammonia which is easier to transport than hydrogen will be converted back to hydrogen when it is received in Europe. As you and your department must be aware, scientist and experts have indicated that the process described by the proponent is untested, inefficient and of the National Climate at Environmental Defence Canada expensive. has stated that "Using renewable energy to produce hydrogen, which then get converted in ammonia is a very inefficient use of renewable energy. Each step of that supply chain is complex and expensive". She goes on to say that "in an era in which we are trying to decarbonize in smart ways, this is not a smart way to use renewable power". another expert on Hydrogen said, "The idea of using wind energy for hydrogen is absurd from a climate perspective, particularly whilst you have still got coal or fossil fuel used locally in the electricity grid". The EA document goes on to indicate that in addition to the exported ammonia " an agreement is expected to be established with NSPI for the use of green energy from the Project beyond that consumed by the Point Tupper Green Hydrogen/Ammonia project". However, this agreement has not been completed and there is no indication of when the agreement will be established, how much energy will be contributed to the local grid and at what cost. Everwind representatives have

indicated that as much as 20% of the energy produced "might" be directed at the local grid at some point in the future. We submit that you should not be approving a project that will compete for resources of projects which are producing energy which will go directly in our grid. The transportation and storage of both hydrogen and ammonia also risk our environment as a result of potential leaks. Our natural resources should not be sacrificed and risked for the **purpose** of this project.

- 3. The **Cumulative Impact** of this project in the development area has been minimized in the EA document and not appropriately considered. There are 3 approved projects and one proposed near Windy Ridge. The Blueberry Acres proposed project would produce energy for the local grid so should not be negatively impacted by the approval of Windy Ridge, where primary purpose is to export energy. When completed these projects will result in the placement of 108 massive industrial turbines in a relatively small area. Currently the largest wind turbine project in Nova Scotia has approximately 34 wind turbines. Your department has indicated that cumulative impact was an area that needed to be considered in your process of modernizing the EA process. Given that there has never been an area in this province which will be a populated with this scale of massive concrete industrial wind turbines it is critical that your regulations take into consideration all risk associated with cumulative impact prior to approval of this project. For example, the EA document indicates there could be 200 trucks needed per day during the peak construction period. Construction period is estimated as 20 months. It is assumed proportionate to their size that the other projects which with the construction periods overlapping will require similar number of large trucks. That would be approximately over 400 trucks per day. These trucks would be largely making use of Highway 4 which since the building of the Cobequid Pass has restricted truck traffic due to safety concerns. Prior to restricting truck traffic this road was referred as "Death Valley". Yet the EA document concludes that risk related to truck transportation is low. The document makes reference to the extensive use of the area for hiking, biking, snowmobiles etc and indicates similar uses of Higgins and Kmtnuk projects. It should be noted that recreational activities is a prime driver of economic activity and investment in the project area. Page 72 of the document indicates that the area can continue to be used for these activities during the lifespan of the project. Another section of the document indicates there will be restrictions to access during the construction phase. Again, the EA document concludes low risk related to recreation and tourism. A conclusion which is not supported by evidence provided in the document.
- 4. We believe that **public engagement** has been misrepresented in the EA document. Members of our group have attended 7 of the 9 sessions outlined on page 46 in

Table 3.3. Public response to the project was overwhelming negative at all of the sessions. The only people we spoke to who were supporting the project were either working for the proponent (RES or Everwind), related to an employee or expected to be a contractor of the projects. At the November 14 presentation to council community concerns were dismissed by a company representative as NIMBY related that they had been dealing with for years. The disrespect and ignoring of legitimate concerns and comments of community has been exhibited throughout the engagement process. The table on 3.3 indicates only 47 as the public attendance at the November 16 Council presentation. It does not mention that the attendance in the council chambers was limited due to the size of the room and restrictions imposed by the municipality. It also does not mention the many community members who were on the sidewalk in front of the Municipal Chambers during the meeting with their voices raised in protest to the Windy Ridge project. The document suggest that turbines were removed from visual impact on Folly Lake because of community engagement. In reality, the Everwind Brochure which was circulated in mailboxes throughout Colchester County mailboxes made a commitment that there would be no wind turbines seen from Folly Lake. Company representatives in discussion with us at the November public meeting admitted that this was not true, and they would remedy. This false representation has led many in the community to question the integrity and intentions of the proponent. Another example of the lack of transparency and true "engagement and respect" of the community was when at the February 12,2024 presentation and Q&A the facilitator indicated that there could be no discussion or questions related to the purpose of the project. Almost all of those who asked questions or made comments at the session again were not supportive of the project. A number of community members did have questions on the purpose of the project and were questioning how we would benefit given the risk to our community of exporting ammonia to Germany in what experts indicated is a very risky and expensive process. But the Everwind paid facilitator was firm that they would not discuss the community concerns related to the purpose of the project using our community resources.

5. Much of the Project area is private land, essential moose habitat and a well-known moose concentration area. The Minister of Environment and Climate Change must protect this habitat including Wetlands and adjacent forest habitat consistent with the Province's commitments per the Nova Scotia Mainland Moose Recovery Plan. The Proponent fails to adequately identify how they will mitigate the risks that this Project places on the endangered Nova Scotia Mainland moose.

guidelines/advice that she mentioned in conversations with the Proponent and that were omitted in the Windy Ridge Wind Farm Project's Environmental Assessment:

- Minimize roads, fences, lighting and other linear infrastructure.

- Orient and clump them together in ways that do not sever or intersect intact forest or other natural habitat linkages through the site.

- Plan in a spatial way that retains wide (300 m minimum; 1000 m ideal) habitat linkages/corridors through the site in multiple directions, especially to connect with intact habitat beyond the site.

- Retain both hardwood and softwood and access to water in order to provide summer and winter security and thermal cover and forage.

- Include mechanisms to deter motorized human access beyond that necessary to service the site.

- Retain and enhance natural cover for moose and other SAR habitat delineated as core habitat in Recovery Plans.

-Retain and enhance natural cover for moose and other SAR habitat modeled as high habitat suitability or high likelihood of presence as delineated in Recovery Plans.

- Avoid new road construction/expansion/enhancement in areas delineated as unroaded/low road density in Recovery Plans.

- Retain as much natural cover as possible to favour moose habitat over deer habitat to minimize incursion of deer and associated P. tenuis (brainworm fatal to moose and carried by deer).

While making reference to a commitment to the NS Moose recovery plan and a proposed moose corridor the EA document does not provide the detail and evidence to conclude that mainland moose habitat will not be negatively impacted as a result of this project. The project will put the survival of NS mainland moose at risk and should be rejected.

6. The Project Area does not have many of the traditional draws that **drive investment and construction in a community. The community surrounding this project** is known and valued for its recreational offerings, ecosystems, tourism opportunities and scenic / serene landscapes. These are the attributes which motivate and drive the purchase of properties, investment and economic development in this area. This makes the location unique and land and property values more at risk from the negative impact on recreation, biodiversity, visuals etc. from massive industrial wind turbines. The EA Documents conclusions that land use and values and recreation and tourism will not be negatively impacted is not correct and does not consider the unique offerings of the project area.

- 7. The Project area is in the heart of **an essential biodiversity** corridor between the Portapique River Wilderness Area and the Project area Wilderness Area. The Minister should reject the Environmental Assessment because the Proponent has not proven that they can mitigate the harmful impacts of the Project to biodiversity, ecological connectivity, the Nova Scotia Mainland moose and their core habitat and corridor and neighboring parks and private land trust conservation properties
- 8. It was reported this week that the proponent has identified grid capacity and transportation infrastructure not sufficient in this province to accommodate the scale of proposed projects which Windy Ridge will be supplying energy. It appears that the proponent is looking to taxpayers and rate payers to fund the infrastructure upgrades required. We urge the Minister to not assess this project until it is clear what upgrades in NS grid and transportation systems are required and who will be responsible for funding. It is the proponent who will most significantly benefit from the returns of this proposed project and the proponent should be responsible for any risk and cost of investments required. This issue needs to be resolved and all Nova Scotia's need to understand what cost your government is committing our dollars to before any approvals are granted. How can a project that risk our natural environment ,cost millions( hope not billions) of taxpayer and rate payers dollars and where most of the return directed at foreign investors be a "good deal" for Nova Scotian's.
- 9. The Windy Ridge project document reports there are 365 wetlands identified in the project area (354 formally delineated) and of these 11 were determined to be Wetlands of special significance. Windy Ridge expects to lose (infill )72 acres worth of wetlands for the project. Some of the wetlands in the project area are treed swamps . Treed swamps are important ecosystems for biodiversity and carbon storage. Canada. Treed swamps act as carbon sinks in Nova Scotia. Other main wetlands are bogs and fens. Bogs and fens are peatlands, which store the most carbon of all wetlands. Peatlands are also extremely sensitive to disturbance. Even people walking through them can disrupt the moss lichen heath network on the ground. Peatlands also have plants that are naturally nutrient-poor and adapted to acidic conditions. Disturbances that can introduce fertilizer, pesticides, other chemicals (arsenic, silting) can severely impact these plants. Peatlands are resilient and filter water, but too much contamination will disrupt this natural ecosystem service that the peatlands provide. Bogs and fens are a preferred habitat of the mainland moose. Altering wetlands, notably peatlands and forested wetlands which

are carbon sinks, defeats the purpose of a wind farm, unless the wetlands are ensured to be protected with this Project. When wetlands are altered, such as drying out or losing vegetation (ponds emit more methane than a marsh, for example), they emit GHGs of CO2, CH4, and N2O. The EA document concludes that the residual effects of the project on Wetlands are expected to be minor but lacks the evidence and detail to support this conclusion. The document refers to the implementation of proposed mitigation measures, wetland monitoring, and wetland restoration to reduce the negative impact of wetland loss from the project. The detailed description of these measures, monitoring and restoration is not provided and therefor the effectiveness cannot be assessed or considered. Given the extent of wetlands in the project area, the estimate of loss, the critical contribution that wetlands make to our habitats, wildlife, environment etc and the lack of detail related to how risk to wetlands will be addressed the project should be rejected.

10. Several groups in this Province (including Protect Wentworth Valley) have asked the government to complete a **landscape level planning process** to best determine what locations in the province are best suited for large scale industrial wind development and what province wide restrictions should be implemented. If you and your government are going to be promoting and committed to wind development in this Province then it is your responsibility to ensure that the projects are located in area's where risk to environment and quality of life are minimized and that all community residents are protected by province wide regulations related to setbacks, noise, flicker, visual impact, decommissioning etc. No further approval of large-scale industrialized wind development should be approved until this planning process is completed.

We urge you and your department to take your responsibility to **protect** the environment of this wonderful Province very serious and reject this project.

Respectfully submitted

Protect Wentworth Valley Committee

Windy Ridge EA Comments

July 5, 2024

Hello,

Thank you for considering the following comments from Green Nova Scotia First for the Windy Ridge EA.

### Green Nova Scotia First supports the development of wind energy projects in Nova Scotia provided the provincial government fully addresses and completes certain obligations.

Before exporting hydrogen or ammonia, we must eliminate our dependence on coal and fossil fuels for energizing our grid.

We need to better manage our forests, soils and water through a provincial Landscape Level Planning Strategy.

We need to better protect Nova Scotia's rich biodiversity and abundant ecosystems through an improved Environmental Assessment process.

We need to ensure currently proposed industrial projects prioritize ecological and community resilience in the face of climate and biodiversity crises.

Some members of Green Nova Scotia First were also involved Protect Wentworth Valley's EA comment submission in response to the Higgins Mountain wind project. Through months of dedicated work by volunteers PWV submitted a professional 40-page submission and was able to help rally over 100 other groups and private citizens to submit comments.

Rumours were the Higgins Mountain project was dead on arrival. Less than 24 hours before the Ministerial response was due Minister Halman's team had a Project Denied response ready to publish, yet at the 11<sup>th</sup> hour the Minister reversed his decision and approved the project with a standard template list of conditions.

This was devastating and demoralizing to all the people that submitted comments.

And now Green Nova Scotia First has been overwhelmed with trying to keep on track of numerous hydrogen projects and ongoing changes to promoted projects.

It started with Premier Houston publicly stating he wants to see turbines on every hill in NS. It was quickly followed by various hydrogen project announcements and their related wind projects, most of which were formerly planned as domestic NSP grid projects. Next was the Provincial government strong arm-meddling in municipal affairs along with lies and misleading information promoted by Everwind Fuels. Then Provincial and Federal governments publicly supporting hydrogen-ammonia-export projects without understanding the GHG implications of such support, NSP grid upgrade meetings/news. Green Nova Scotia First then organized, hosted meetings, attended Premier Houston's community meeting where 200+ of his own constituents gave him an earful regarding Bear Head Energy plans for the area. Add keeping track of related pipeline news, biomass, LNG, salt caverns, tax credits, subsidies, changing and growing hydrogen-ammonia-export projects has made it near impossible for any volunteer public interest groups such as Green Nova Scotia First to keep on top of during a lightning frenzy pace for an unproven industry.

Insult to injury global experts in hydrogen, energy, sustainability and climate change clearly state jurisdictions that still rely on coal and natural gas for their grid, such as NS, should **NOT** export hydrogen or ammonia before they are 100% free of coal and fossil fuels.

Based on this and that Green Nova Scotia First has been overwhelmed by the process we did not do the work to get hundreds of comments that we know we could have inundated the Environmental Assessment office with.

Do not take a lack of comments compared to the Higgins Mountain project, that people do not care. We know they do. We are gaining members every day and now have members across most counties in the province.

Our government and the cash rich industries has worn us down so we chose to focus on the following Environmental Assessment comments below.

We know that our comments will have little effect on Minister Halman's decision. In fact, we assume Tim Houston has already made Minister Halman's decision for him, before the Windy Ridge EA was submitted.

### Environmental Assessment process failings

Last year the government requested comments for Environmental Assessment modernization, acknowledging the system needs upgrading. Yet now without any upgrades the government is considering more 'green' hydrogen proposals that would overload our grid and there's a second RFP Rate Based Procurement renewable energy call.

There are numerous outstanding issues with the NS EA system such as;

- conflict of interest between proponents and environmental/consulting companies
- no Class II assessments for massive renewable and hydrogen projects
- 30 comment period is completely inadequate
- Cumulative impacts not addressed in meaningful way, especially when considering multiple wind projects connected to hydrogen-ammonia export scenario
- No funding or govt support for public interest groups to research, review EA's
- No transparency for Ministerial decision making
- Climate change considerations such as total project life cycle GHG emissions
- No Code of Conduct or accountability for proponents, consultants who lie and mislead public and government officials. Needs penalties.

### There should be no approvals given to massive industrial wind-hydrogenammonia export projects, such as Windy Ridge, until NS has an enhanced Environmental Assessment process.

## Lack of NS Landscape Level Plan

NS needs a province-wide landscape level plan. Without one EA's are flawed before they begin. It is impossible to understand what areas are appropriate for energy, mining, industrial forestry and what areas need to be protected for land and water conservation, ecological connectivity, Species-at-Risk, flood mitigation, watershed protection until a Landscape Level Plan for NS is complete.

A Landscape Level Plan would help mitigate conflict between communities, protected areas, wildlife and industrial proponents/proposals.

Until Nova Scotia has a province-wide Landscape Level Plan, no approvals should be given for massive industrial wind projects for hydrogen-ammonia-export.

### Renewable energy -Hydrogen-Ammonia-export

Global hydrogen energy experts, such as , etc agree no jurisdiction, including NS, should export a single kilowatt of wind energy via hydrogen-ammonia until local electrical grids are 100% free of fossil fuels such as coal and natural gas.

Even if the NS grid was 100% free of coal and natural gas, 80% of the energy collected is lost to system and processes of converting energy to hydrogen, then converting it to ammonia, shipping it across the ocean and reconverting it back to energy. It is an extremely energy intensive process.

No 'green' hydrogen schemes that involve shipping hydrogen or ammonia across oceans are sustainable or green if they need to ship product more than 5,000km which is the case for NS to Germany and Europe shipping.

A study of 1,000 hydrogen projects worldwide concluded that 'green' hydrogen projects connected to a power grid that use fossil fuel are as bad as hydrogen made with fossil gas.

Everwind hydrogen-ammonia projects will mostly be grid connected and cannot be called green. They won't reduce GHG emissions.

Renewables-hydrogen-ammonia export will slow NS and Canada from meeting our greenhouse gas emission reduction targets for 2030.

NS wind-hydrogen-ammonia exports will increase CO2 emissions globally.

NS wind-hydrogen-ammonia exports to Europe will give most renewable energy benefits away to Europe.

Therefore Nova Scotia and the Federal Government should not be subsidizing or supporting wind-hydrogen-ammonia-export schemes.

### No wind-hydrogen-ammonia-for export schemes should receive EA approval.

#### Greenwashing

Throughout the Windy Ridge EA, website, marketing, community meeting information, etc... Everwind and their consultants make many false, misleading and deceptive environmental claims in promoting their project and interests. The Windy Ridge EA has numerous claims about how their project will reduce greenhouse gases and help climate change that they do not back up with any support.

The United Nations Climate Action group states, 'greenwashing presents a significant obstacle to tackling climate change. By misleading the public to believe that a company or other entity is doing more to protect the environment than it is, greenwashing promotes false solutions to the climate crisis that distract from and delay concrete and credible action'.

Everwind's EA and communications make claims that promote the environmental, social and ecological benefits of their proposals that are not based on adequate and proper tests. The burden of proof is on Everwind when making environmental claims.

Everwind's NS projects should not be called 'green' and they won't reduce GHG emissions.

There are too many examples to list here but a few from the Windy Ridge Wind Power Porject EA Registration Document are as follows;

Page III 'The Project will have a positive residual effect associated with minimizing the regional carbon footprint...from the Municipality of the County of Colchester.'

Page 3 'By using wind energy, the Point Tupper Green Hydrogen/Ammonia project will comply with the European Renewable Energy Directive II Renewable uels of No-Biological Origin Standards – internationally the most stringent set of requirements.'

Page 3 The Project will contribute to the province's goal to reduce GHG emissions by 2030 as per the *Environmental Goals and Climate Change Reduction Act* Pages 282, 283 Everwind claims there are no significant residual effects of their project, except for positive effects for population and economy. Take Bats for example, the population of bats is slowly recovering from White nose syndrome. There are various bat hibernaculums in the immediate area and wind turbines are a known hazard to various species of bats. The EA does not prove there in not a significant risk to bats.

A few of Everwind's Windy Ridge website greenwashing examples as of July 3, 2024;

- 'Green hydrogen allows us to store wind power; provides zero-carbon energy/electricity when the wind isn't blowing and the sun isn't shining'
- 'Green hydrogen combined with electrification allows a 100% transition from fossil fuels'
- 'operationalize the Mainland Moose Recovery Plan' which is impossible with the Windy Ridge project as planned. A plan should have been made before turbine and road locations were chosen.

Everwind carbon emissions reduction claims are weak, unproven and likely contradictory point in this project, that could be linked to greenwashing. Due to the energy intensity, vast resources required, extreme inefficiency in the wind development-hydrogen-ammonia-shipping-reconversion to energy process Everwind needs to produce them data showing total carbon emissions VS total carbon sequestration for the wind farm itself, as well as combined with the hydrogen/ammonia project including the emissions to export the final product from NS to Europe.

The fact of the wind farm is part of the hydrogen/ammonia project and the electricity won't go to the NS grid that could makes this project a good candidate for Bill C-59 anti-greenwashing legislation.

## Without data to back-up Everwind claims, the EA should not be approved.

### NS Grid based project poaching

RES first went public with Windy Ridge in 2012 as a domestic grid project and it remained that way until 2023. A member of Green Nova Scotia First was present at various Windy Ridge domestic grid meetings between 2012 and 2023. Hydrogen-ammonia-export schemes were never mentioned in that time.

Everwind's Windy Ridge 2024 EA document sites RES 2012 work on page 30 of the Windy Ridge Registration Document.

Everwind Fuels has poached a project from Nova Scotia that could have gone directly to reducing coal and natural gas on the NSP grid. Such is also the case in several other wind projects around Nova Scotia in Hants County, Antigonish and Guysborough, to name a few.

# No wind-hydrogen-ammonia-export project, such as Windy Ridge, that was poached from becoming a domestic grid project should get EA approval.

#### Access Roads

The Windy Ridge EA is incomplete and the public cannot make informed decisions. The EA does not specify what access roads will be used, so residents along potential access roads have no idea whether they could be impacted by potentially up to 16,569 concrete trucks, turbine and blade trucks, supply trucks, maintenance, and untold others using their road.

On April 10, 2024 from RES told McCallum Settlement residents the Proponent was still deciding on Windy Ridge access roads as a couple of their first choices were not feasible.

He told they were then considering Reid Road in Debert as a primary access road.

On June 30<sup>th</sup>, Green Nova Scotia First member spoke with residents from twelve different households on Reid Road and none of them had heard anything about their road being used for the Windy Ridge project nor had some of them even heard about the project.

# The EA should not be considered until access road details are final and shared with the general public.

### Visual Simulations

There were no visual simulations done for about 2/3rds of the perimeter of the project area. Residents of East Folly Mountain, Debert, Masstown, Crowes Mills, Onslow Mountain, McCallum Settlement, East New Annan and Central New Annan were not offered any visual simulations.

from RES told Green NS First members they could not do visual simulations in these areas because they never got land owner permission, however

many of the visual simulations that were completed were done from road side. This is very easy to model for wind developers.

# The EA should not be considered until every perimeter community has at least one or two simulations from areas showing the most significant visual impacts.

#### Cumulative Effects

The Proponent suggests 11 of the 13 criteria considered for Cumulative effects were Low. This defies all logic for a project the size of Windy Ridge especially considering neighbouring approved and proposed industrial wind projects such as Nuttby, Kmntuk, Higgins, Blueberry Acres, Westchester and the years of industrial logging that had a heavy effect on the region. Despite the proponent often highlighting their use of existing roads, it attempts to obsure the fact that road widening has serious negative effects on many VEC's especially moose, birds, wetlands, fish habitat to name a few.

This is greenwashing. Take for example the Atmospheric Environment 15.3.2.1. First the Proponent fails to list Atmospheric Environment in Table 15.1 but in the text section they compare their project to a steam methane project emissions. This is a ridiculous, misleading comparison.

A more realistic comparison would be if the Windy Ridge Project was entirely for the NS grid as originally planned between 2012 and 2023. The cumulative effects for a domestic grid project would be significantly less than the wind-hydrogenammonia-export-conversion back to energy project that they are proposing.

The Proponent makes unsubstantiated claims such as 'The Net effects of the renewable energy projects in Colchester County and the Point Tupper Green Hydrogen/Ammonia project-Phase 1 will result in a positive cumulative effect to the atmospheric atmosphere'.

The Proponent does not discuss cumulative effects of their other related wind projects such as the Bear Lake, Kmntuk, the 404 turbines proposed for Guysborough County, Point Tupper or the untold hundreds of offshore turbines they are likely still planning. Without evidence supporting their many false, misleading and deceptive environmental claims the Proponent suggests cumulative effects are mostly low.

# Based on cumulative effects alone, the Windy Ridge EA should not be approved.

### Mainland Moose

Much of the project area is considered 'Essential' mainland moose habitat and as the term implies is essential for survival of mainland moose. Most of the remaining project area is considered 'Core' mainland moose habitat.

Nova Scotians have been waiting for designation of 'Core' mainland moose habitat since 2021.

As we wait for government to designate core habitat, industrial projects keep getting proposed and passed that further degrades and fragments excellent moose habitat. This inaction by the Houston Government will most likely lead to the extinction of the mainland moose as any opportunity for ecological connectivity corridors for moose disappear, industrial project after industrial project.

Key guidelines from the Mainland Moose Recovery Plan should be adopted by Windy Ridge to avoid possible harm to the mainland moose

- 1. Minimize roads, fences, lighting and other linear infrastructure.
- 2. Orient and clump them together in ways that do not sever or intersect intact forest or other natural habitat linkages through the site.
- 3. Plan in a spatial way that retains wide (300 m minimum; 1000 m ideal) habitat linkages/corridors through the site in multiple directions, especially to connect with intact habitat beyond the site.
- 4. Retain both hardwood and softwood and access to water in order to provide summer and winter security and thermal cover and forage.
- 5. Include mechanisms to deter motorized human access beyond that necessary to service the site.
- 6. Retain and enhance natural cover for moose and other SAR habitat delineated as core habitat in Recovery Plans.
- 7. Retain and enhance natural cover for moose and other SAR habitat modeled as high habitat suitability or high likelihood of presence as delineated in Recovery Plans.

- 8. Avoid new road construction/expansion/enhancement in areas delineated as unroaded/low road density in Recovery Plans.
- 9. Retain as much natural cover as possible to favour moose habitat over deer habitat to minimize incursion of deer and associated P. tenuis (brainworm fatal to moose and carried by deer).

Everwind and RES have been talking a lot about a proposed moose corridor. They first declared their intent in October of 2023. They hired two non-moose/conservation experts to work on the project with no results to show for it in the Windy Ridge EA Registration document.

This isn't surprising. The 2023 <u>Higgins Mountain EA Figures -Part 1 Figure 3.1</u> clearly showed Moose Reserves (Northern Pulp) throughout the project area. Later at a CLC meeting Higgins Mountain project manager was asked how the moose reserves were going. He denied they existed and was confused when shown Figure 3.1.

It is not surprising Northern Pulp would not want designated moose reserves or moose corridors on their properties as it would impact their industrial harvesting activities.

Stating on Page III of the Windy Ridge EA registration document, 'The Proponent has also proposed the concept of a 'moose corridor' to describe a collaborative, large scale, land conservation effort in the region in which it is prepared to play a coordinating role. A moose corridor would provide ecological connectivity between protected areas and foster improvements in land use practices, such as reduction in forest harvesting'

It seems unlikely Northern Pulp would support such work as it would have dramatic negative impacts on forestry operations and the number of turbines and widened roads on their properties in nthe Windy Ridge project area.

Unless the Proponent can show any tangible evidence a moose corridor is being worked out, it nothing other than greenwashing.

EA should be denied based on the greenwashing, misleading moose corridor claims and the irreversible harm to moose this project will cause.

**Bats** 

Bat populations across North America were decimated in recent years by white nose syndrome.

So characterising 105 recorded bats in a single year study as 'relatively low number' seems to be false or misleading greenwashing. Suggesting 'low'bat activity needs robust scientific references to back it up!

105 recorded bats includes 21% of the bats were migratory species which are protected under federal law.

From the EA Registration document page 191 – 194;

'The Project presents risks of direct bat mortality and injury during construction, primarily due to vegetation clearing and increased traffic. Once operational most bat deaths at turbines are due to blunt force trauma from collisions with smaller component of deaths related to barotrauma due to rapid change in air pressure'

'The reasons why bats do not avoid turbines remain largely unknown.'

'as outlined in the Recovery Strategy (ECCC, 2015) activities that cause excessive disturbance (eg light, noise, vibrations) could result in the arousal of bats from torpor.'

'Wind turbines during operation generate noise that may impact the ability of bats to carry out a wide range of behaviours such as communication, foraging, and predator avoidance.'

'Bats may be attracted to wind turbines because these structures have similar characteristics similar to favourable roost trees.'

Mortality mitigation during operations is possible. Bat mortalities occur most frequently when turbines blades are turning slowly at low speed. Most wind turbines operate at a cut-in wind speed below which, while the blades still slowly rotate, no electricity is generated. Recent studies have shown that by preventing wind turbine blades turning when the wind is light, bat mortalities is reduced dramatically.

'Mitigation works. Turning wind turbines off for very short periods at low wind speeds during the fall season can reduce mortality by 50-80%, while minimally

compromising energy production, notes Stephen Petersen, co-chair of COSEWIC's terrestrial mammal subcommittee.

# If the EA is approved with conditions, mitigation techniques around low turbine speeds should be a condition of approval.

# However, the high risk to recovering bat populations should be reason alone to not approve the Windy Ridge EA.

### Wetlands

The Windy Ridge project expects to infill a staggering 72 acres worth of wetlands for the project.

Wetlands provide countless benefits to communities, watersheds and wildlife. Wetlands provide many functions such as;

- water storage
- water cooling
- water filtering
- mitigate drought effects
- mitigate flooding
- prevent, reduce erosion
- significant carbon sequestration
- provide habitat, shelter and refuge to countless local, migratory and SAR species
- maintain regional biodiversity
- maintain food chains
- provide recreation
- enhancing fishery productivity

There are 365 wetlands in the Potential Development Area all of which play important roles.

Of these 14 wetlands are classified as Wetlands of Special Concern.

Wetlands to be infilled will require other wetland compensation, but this usually means other wetlands will be protected or new wetlands will be created. These areas are, more often than not, are in different watersheds or much further downstream where they don't have the same effects such as flood control, etc....

When offsetting wetland destruction through wetland restoration, it is important to consider several key factors. Firstly, the compensatory process is governed by policies such as the Wetland Conservation Policy, which aims to protect against the net loss of wetlands. According to this policy, compensation is the last step in the mitigation process, and the first course of action in the mitigation process should be avoidance, followed by minimize/mitigate impacts. Compensation as a final option is critical, as the destruction of wetlands in one area followed by the creation or enhancement of wetlands elsewhere presents the injustice of transferring values to other communities while stripping these values/services from the communities in which they were derived from. Therefore, it is imperative that restoration efforts take place in the same watershed to mitigate the negative impacts on the local community. However, it is notable that it can take decades if not centuries for ecosystem services from a restored wetland to be similar to an intact, reference wetland. This represents a loss provincially as GPI Atlantic estimates that wetland destruction through development in Nova Scotia equates to approximately \$2 billion annually resulting from the diminished ecological services.

Given that 72 acres of wetlands are expected to be infilled, it is reasonable to assume serious potential negative effects on downstream communities, as the hydrological connectivity between wetlands and downstream waters influences the overall structure, function and dynamics of the watershed, which directly influences the integrity of downstream waters. To provide examples, flood control will be diminished in various watersheds. As seen in the deadly NS floods of 2023, downstream communities will be at greater risk. In addition, within watersheds, wetlands are sinks for detrimental materials such as excess nutrients (e.g. nitrogen and phosphorus), sediments, contaminants, and certain metals. Given the continued resource extraction in the area (e.g. lumber, mining) and the added habitat destruction resulting from the wind development, wetland conservation is crucial to buffer these materials and preserve the water quality locally and of the downstream communities.

It is insulting the Proponent and their consultants declared the risk to wetlands is 'Not Significant' related to loss of wetlands, change in wetland hydrology and change in wetland function when they plan to infill 72 acres of wetland including Wetlands of Special Significance.

The cumulative effects of wetland damage should be considered high, yet somehow, all but two of the Windy Ridge cumulative effects assessments were rated as 'Low'. The area occupied by the Windy Ridge project is characterized by a plethora of interconnected watersheds where wetlands serve as a critical component to maintain the overall integrity of the system as a whole. Because of the intrinsic link between wetlands and surrounding waterbodies (e.g., lakes, rivers, streams) it is inappropriate to consider the cumulative impacts 'Low' due to potential cascading effects across surrounding ecosystems that would result from construction, operation and maintenance, and decommissioning, in an already ecologically sensitive area.

### The EA should not be approved on wetland impacts alone.

### <u>Fish Habitat</u>

The Wallace and the French River systems are well known, important systems for Atlantic Salmon and American Eel. Therefore, all high quality fish habitat should be protected and road-crossings should not be allowed within or adjacent to these habitats. Road-crossings should only be built in poor quality fish habitat and must be passable in order to connect all the protected good habitats within the watershed.

### Species -at-Risk Buffer Zones.

Several endangered and vulnerable in both aquatic and terrestrial habitats were found within the area of the project and once they are buffer zones must be established to protect them. Moreover, the size of the buffer zones varies according to the biology and dispersal range of the target species. For example, buffer zones for endangered lichens like the boreal felt lichen is 500m (source: <u>https://cdnsciencepub.com/doi/full/10.1139/cjfr-2012-0452</u>), while amphibians and reptiles require a terrestrial habitat ranging from 127 to 290 m from the edge of the aquatic site

(source: <u>https://conbio.onlinelibrary.wiley.com/doi/abs/10.1046/j.1523-1739.2003.02177.x</u>).

## Riparian zones

Vegetation suppression in riparian zones has a significant impact on water quality and fish habitat and the suppression of riparian vegetation should not be allowed or at-least highly avoided. Among the impacts, we can highlight the erosion of riparian zones that results in high influx of sediments in the rivers destroying important fish habitat like spawning and feeding sites for endangered species such as Atlantic Salmon and American Eel. Moreover, riparian vegetation provides shade allowing the creation of cold-water refugia for Atlantic salmon in the summer, thus removing riparian vegetation will result in warmer waters due to the direct exposure to sunlight that will likely lead to higher mortality of cold-water associated species.

#### Acoustic Environment

When Everwind says 'Computer models were used to predict noise levels from operation of the Project' or 'The modelling results predict sound levels ranging from 14.9 to 37.5 dBA', please keep in mind that predictions are not real data and must be interpreted with caution. They say the models predicted a noise of 14.9 to 40 dBA at 2 km that is equivalent to a quiet rural area during nighttime period and use that as a reference to define the setback distance at 2km, but values above 35 dBA is not in accordance with the baseline acoustic value recommended by Health Canada (2017) and due to the uncertainties associated with the predictions a more conservative setback of 3 km would be more appropriate.

# As a precautionary principle, the EA should not be approved without 3km setbacks from all home and/or private property boundaries.

### Signing Land Use Deals While Under Court Order

Northern Timber was not allowed to sign land use deals with Everwind and other wind companies while under BC court protection. Natural Resources & Renewables Minister Tory Rushton was made aware of this at a Protect Wentworth meeting in 2023 or 2022.

# The Windy Ridge EA should not be considered for approval as land-use deals were signed when they were not legally permitted to do so.

#### Final Comments

The state of the industrial wind energy industry in Nova Scotia is like the wild west.

Wind-hydrogen-ammonia-export plans that dwarf the current capacity of our grid and take the best wind sites in NS that could be used for our domestic grid. Wind-hydrogen-ammonia-export proponents are looking for billions in tax subsidies, tax credits, Canada infrastructure bank money, and more recently an Everwind lead consortium asking the provincial government for infrastructure upgrade money.

These export projects will increase global C02 emissions, while exporting away the benefits of renewable energy.

Greenwashing projects is a major problem and needs to be addressed.

At the same time the NS government is in the middle of its second Rate Based Procurement for renewable energy for our domestic grid.

Just about every corner of NS has new energy projects popping up on an almost weekly basis whether it be wind, solar, biomass, LNG, pipelines, salt cavern storage, hydrogen, ammonia, etc...

It is all overwhelming communities, citizens and our ecosystems.

In the face of the real risks related to climate change, the province needs to step back, make a province wide Landscape Level plan, improve it's Environmental Assessment process, create a Class II assessment for all industrial scale energy projects ASAP before any new projects are given the green light.

Thank you,

Green Nova Scotia First

From:	<u>agmail.com</u>
To:	Environment Assessment Web Account
Subject:	Proposed Project Comments
Date:	July 5, 2024 6:04:01 PM

#### \*\* EXTERNAL EMAIL / COURRIEL EXTERNE \*\*

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Project: windy-ridge-wind-power-project Comments: Dear Minister, I am writing to you as a resident of Colchester County, the location of the proposed Windy Ridge Wind Turbine project seeking approval from your department. I want to emphatically register my opposition to this project and urge you to deny the approval. I attended one of the open houses hosted by the proponent. I found the experience frustrating. So many questions that should have been answered werenâ? Tt. For example, any questions about the production of hydrogen or ammonia were off the table. This was unsatisfactory given that this is the entire raison dâ? Tetre for the project. The precise location of towers and roads were also seemingly not finalized. When asked about steps to protect mainland moose corridors and habitat, there was no plan only a plan in process. Greater clarity is needed. I am puzzled why priority is being given to wind turbine projects that will not reduce greenhouse gas emissions in our province. My electricity bill continues to increase. Our property has suffered damage from two hurricanes. It is clear to me that we must take action to address the climate emergency. But the Windy Ridge wind turbine project will NOT help our province meet its emissions targets or reduce my electrical bill. Instead, this project will generate power for a privately owned plant at Point Tupper that produces hydrogen and ammonia for export to Europe. Further, I do not see the wisdom of granting a private company access to one of the best locations for wind power in the province. Crown lands should be used to benefit all Nova Scotians and in furtherance of our environmental commitments. It was not clear to me - or others who attended the open houses - how the NS Power electrical grid will handle the additional load from these private wind turbine projects. We regularly experience power outages in our area because of longstanding mainteenance neglect by NS Power and now the weather changes wrought by climate change, eg, stronger winds, freeze and thaw cycles, falling trees. Electrical power is a service that we cannot do without, especially in rural areas where many home owners are unable to afford or not comfortable operating a generator. This means they are without access to water when the power goes out, to say nothing of the loss of heating, lighting, refrigeration and cooking capacity We should not be taxing the capacity of our already fragile electrical grid. While your government is promoting these mega-industrial projects, regulations around setback, noise, decommissioning etc are left to the municipalities. This has resulted in different protections for residents in different counties. The scale of these projects demands standard rules and directives for all areas of the province. Finally, I am shocked that such a massive industrial project requires only a Class 1 environmental assessment, a very cursory process. Allowing citizens and communities only 30 days to digest thousands of pages of technical documents is not true consultation. For all of these reasons I request that you deny the application by Windy Ridge. Sincerely, @gmail.com Address: Bayhead, NS E NS Name: Email: Municipality: Bayhead email message: Privacy-Statement: agree x: 48 y: 18

From:	@gmail.com
To:	Environment Assessment Web Account
Subject:	Proposed Project Comments
Date:	July 5, 2024 8:13:47 PM

#### \*\* EXTERNAL EMAIL / COURRIEL EXTERNE \*\*

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Project: windy-ridge-wind-power-project Comments: Dear Minister Halman: I am writing to request that you do not approve the EA for the Windy Ridge Power Project. The green label for the project is in question. Projects that will produce hydrogen where the existing electric grid is not greened first cannot truly be called â?ogreen hydrogenâ? . In hydrogen production 80 of the energy collected is lost to system and processes of converting energy to hydrogen, then ammonia and then shipping it across the ocean and reconverting it back to hydrogen. There is in reality, no confirmed market for hydrogen fuel. The amount of hydrogen vehicles/heating is minuscule and shrinking in comparison to EVs. The EA process is unfairly skewed in favor of corporate and government interests. The government has unlimited access to taxpayer dollars and the legislature at its disposal to advance its interests and steer the process to a desired outcome. The multi million dollar corporations have unlimited funds to see their ends net. Taxpayers have no funds allocated, environmental scientists or experts assigned to represent their interests. The imbalance is obvious and makes a mockery of the idea of fair process. There should be class II assessments for projects of this size. The provincial government has written and amended legislation along the way to accommodate the hydrogen project instead of protecting Nova Scotia residents. Please do the right thing and reject this project. Sincerely, Name: Email: @gmail.com Address: Municipality: Port Shoreham

email\_message: Privacy-Statement: agree x: 72 y: 28

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Honourable Timothy Halman Minister of Environment and Climate Change

I am writing to express my concerns about the Windy Ridge wind farm project.

First, I need to discuss how outdated and flawed the environmental process is in Nova Scotia. Last year, the N.S. Department of Environment and Climate Change recognized it needed to seriously review and update its policies/guidelines around the environmental assessment process and asked for public feedback. There are still no revised updates nor any deadlines for these changes (CBC June 28). While the department is trying to fulfill that commitment—it continues to approve environmental assessments while using outdated sixteen-year-old policies/guidelines. This creates the "perfect storm" setting for some companies to slip in and exploit Nova Scotia's natural resources.

The Minister has recently decided that the public would not be allowed more than 30 days to read, digest, research, and write their comments (CBC June 28). The Minister needs to recognize and respect the time and work involved for many Nova Scotians to comment on an environmental assessment. Having more than one environmental assessment with similar deadlines for comments makes it even more challenging.

Nova Scotians understand and support wind energy for our provincial grid, but many have concerns that we will not meet our 2030 goals. All the focus is on EverWind who will export their energy overseas. It is concerning that the provincial government does not have caps or limits for these ammonia companies, but instead fast tracks anything "green hydrogen" related. Nor is there an overall "wind farm plan" for Nova Scotia (that is made public) that encompasses all wind farms—such as those powering the grid, private plants, and those used for ammonia export. The public needs to see the operational wind farms, newly approved wind farms and those crown lands set aside for future wind farms—be it wind farms to power our grid or for export. If there is no "wind farm plan" made public—Nova Scotian's will just assume that the government has no credible plan. It is also deeply concerning that the province does not request decommissioning funds upfront. Like coastal protection, each municipality has different guidelines for wind farms. For example, some (but not all) municipalities have increased their wind farm setbacks after learning about these "mega" wind farm projects and some (not all) are asking for decommissioning securities upfront. Currently, provincial guidelines state the proponent needs to only submit a decommissioning plan two years before closure. How many companies will bail before that time comes? Companies that have not bailed can apparently appeal and delay paying their security funding such as Touquoy gold mine (Halifax Examiner July 3).

The federal government has recently passed Bill C-59 on June 20th. However, EverWind's two websites still have some misleading claims (promoting "green" energy) as does the current Windy Ridge environmental assessment. The burden of proof is on the proponent to prove their statements/data are accurate. Sometimes though, it's not just what is written—it is also what is omitted.

In the section under "about us" in the Windy Ridge EA—EverWind failed to mention they own Point Tupper Terminal, which stores and ships fossil fuels from around the world (since 2022). They also failed to publicly identify this at the open houses. They are misleading the public because it doesn't fit their "green" image.

The section "need for project" failed to mention EverWind needs these wind farms like Windy Ridge in order to export ammonia overseas. That is their main goal. EverWind needs to publicly identify what their energy losses will be i.e how much energy is lost for their project such as losses from wind energy, producing hydrogen, producing ammonia, leaks for both, shipping overseas, with ammonia converted back to hydrogen. Experts have said that the best case is 67% to 83% energy loss. This means EverWind's project is only 17-33% efficient. This is why the company needs so many wind farm turbines, including Windy Ridge due to massive energy losses. In Guysborough County, 300 of the 400 proposed turbines will "spin for nothing" as all that energy will be lost. (Guysborough Journal: Wind Farm Wasteland June 26/2024). All that environmental damage is literally for nothing.

In the "need for project" section, the proponent was unable to explain or provide concrete data about how EverWind will benefit the Nova Scotia grid/help Nova Scotia reach its 2030 goals. EverWind's claims about "green" hydrogen providing zero carbon energy electricity is false if Windy Ridge or other wind farms touch our grid. End of story.

Nova Scotians should be seriously worried about how much EverWind's projects will cost rate payers. Rate payers always get stuck with the bills. Even if rate payers don't get stuck paying for Michelin upgrades, rate payers will definitely be

stuck paying for EverWind upgrades because it's labelled "green energy".

The carbon footprint of EverWind's project is worse than originally thought. Buying wind turbines from South Korea, who's fossil fuelled grid has less than 10% renewable energy, 10,000 km shipping to Nova Scotia using fossil fuels, driving 280 km to the site, clearing and disturbing lands, blasting, erecting turbines, making hydrogen using millions of litres of fresh water per day, dealing with hydrogen and ammonia leaks, shipping ammonia 5000 km overseas to Germany using more fossil fuels, end users will be converting the ammonia back to hydrogen, issues with turbine blade graveyards... this is a huge carbon foot print. None of this is truly "green" which is why Ottawa and world have downgraded it to "clean" energy now, although EverWind still calls it "green".

Windy Ridge wind farm was originally discussed back in 2012—it was meant to be hooked up to the grid. Now it will be used by EverWind for their hydrogen/ammonia plant for ammonia export overseas. That's 340 MW "gone" while Nova Scotia continues to burn coal? So, not only does the province not have no rules or caps for these mega wind farm companies, it appears these companies can also poach other "unfinished" wind projects. EverWind also has plans for another fourth wind farm in Guysborough and Antigonish area—using 90 MW of power that was supposed to be hooked up to the grid—that is for South Merland/Upper Afton area and those communities are already included in the community benefits agreement (May 1, and May 29, Guysborough Journal).

For Windy Ridge, the proponent hired Creative Currency in July 2023 to do phone surveys in Colchester County to gauge resident's views on wind farms. Apparently, up to 90% support wind energy. However, there is a huge difference between wind farms spinning to green our grid vs wind farms spinning/losing vast amounts of energy for exporting ammonia overseas—this was not included in the EA.

The EA's section on "public consultation" was inaccurate. It listed only 13 questions for public concerns but that does not reflect the total number of questions and concerns. Nor does it reflect how many emails, calls, and visits to the EverWind-Windy Ridge office. I find it alarming that the questions regarding the inefficiency of the proponent's project and how the project does not benefit our grid were excluded jn the summary. Residents raised serious concerns and omitting them in the EA is extremely misleading.

The EA also omitted important details and explanations which seriously impact the environment. There is great confusion around some access roads not even being identified. There is ambiguity about the mainland moose study—this proposed wind farm is on land owned by Northern Pulp. Why would Northern Pulp agree to a moose study, considering they are all about clear cutting and it may impact their

future business? I'm not even sure how Northern Pulp, under creditor protection, leased their land to EverWind. What about the infilling of 72 acres of wetlands? Wetlands play a critical role—everything from wildlife to flooding.

I am curious to know why CBCL is the consulting firm for Windy Ridge wind farm. Strum Consulting was the consulting firm for EverWind's Point Tupper Project, Kmtnuk, Bear Lake, all three Guysborough wind farms, plus they were the initial consulting firm for Windy Ridge. Then they were "replaced" with CBCL. When did this happen? Why did this happen? Was it EverWind's or Strum Consulting's decision? I noticed Strum's data is still included throughout the EA is there a problem with the data? It's a fair question to ask and the public deserves to know.

Interesting—the Windy Ridge EA (Phase 1) was submitted at the same time the Phase 2 open houses in Guysborough County were happening. The Windy Ridge EA was quietly submitted and didn't even make the provincial news, as Guysborough County residents discovered there would be 404 proposed turbines using 64000 hectares of crown lands.

I'm not sure anyone can even appreciate the true impact of accumulative environmental effects from this project based on "best guesses" from the information provided in this EA. Submitting "best guesses" and hoping for the best is not good enough. If a company can't be bothered to complete a proper environmental assessment but instead cuts corners—how can they be trusted to build a wind farm, manage a wind farm, and make hydrogen and ammonia without cutting corners? EverWind is all about fast tracking to be the "first and the biggest" and this puts the province and Nova Scotians at risk.

The Phase 1 projects are already behind schedule for the two windfarms approved last year. It is unknown if EverWind can even pull these projects off, let alone building one of the largest wind farms in the country in Guysborough County. EverWind is also building a new ammonia plant and a 2-3 GW wind farm in Newfoundland as well. EverWind does not even have a binding agreement with off takers. EverWind boasts on their website that they are the "lead green hydrogen developer". No hydrogen has been produced, there is not one single wind turbine built. The only thing that EverWind currently operates is Point Tupper Terminal, which stores and ships fossil fuels around the world. That certainly does not make them the "green" leader of the world.

Nova Scotia is the second smallest province. We can't compete with wind projects that might "fit" in Texas, which is over 12.5 times larger in size, as EverWind is suggesting (CBC online June 17). Nor do we have 2 million square km of land, as EverWind's CEO Trent Vichie stated (The Energy Mix, September 18, 2022).

Building wind farms to green our grid using a balanced and realistic approach is totally understandable. One company building 500 plus turbines to export ammonia, while our province continues to burn coal, makes Nova Scotia appear foolish and reckless.

Thank you for reading about my concerns. It is my hope that the province will put Nova Scotia first and reject this proposal.

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From:	
То:	Environment Assessment Web Account
Cc:	John Perkins
Subject:	Windy Ridge EA Comments
Date:	July 5, 2024 8:45:11 PM

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Windy Ridge Power Project Environmental Assessment (EA) Registration Document Comments

I am a resident of Colchester County and deeply opposed to the proliferation of massive wind turbine project proposals locally and across Nova Scotia for the purpose of producing hydrogen for export rather than prioritizing renewable energy to first decarbonize electrical generation in Nova Scotia.

#### **Overall Comments**

I am concerned that contrary to the stated purpose of EA's in Nova Scotia that "concerns from all stakeholders and the Mi'kmaq of Nova Scotia are identified and addressed at the earliest stage of development planning" the Minister alone can decide without explanation whether or not the development can proceed and dismiss stated concerns without explanation. (https://novascotia.ca/nse/ea/docs/citizen-guide-to-environmental-assessment.pdf)

I am outraged that extensive flaws still exist in the the EA process: that undertakings of this size are not subject to a Class II EA, that the comment period is a meagre 30 days, that cumulative effects of multiple undertakings are not considered, and that there is no access to funding to support extensive review by NGOs and interested stakeholders.

I am disappointed that the anti-greenwashing measures of the recently enacted Bill C-59 are not considered in the structure and requirements of the EA process and Registration Document.

#### Purpose of the Project

In the Executive Summary and Section 1.2 the proponent makes the vague assertions that the wind energy will be used to power a "green hydrogen/ammonia facility", that it will comply with the EU regulations, and will support "reduction of GHG emissions on a global scale. Proving a product is "green" and that GHG emissions will be reduced is complex and challenging. That there is no requirement for the proponent's assertions to be substantiated and proven via extensive technical description and documentation, and to have no clearly stated green hydrogen specifications for Nova Scotia is major shortcoming of the EA.

Greenhouse Gas Emissions (GHG)

The proponent asserts in Section 1.2 that the project will reduce GHG emissions globally. Appendix C reports 236,159.59 Tons of CO2e emissions for the turbine and electrical infrastructure aspects of the project. These are new emissions that would seem to indicate more not fewer emissions. This discrepancy is not explained and the Registration Document is silent on exactly how GHG emissions are to be reduced globally. The absence of extensive technical description with substantiating documentation for how these assertions will be achieved renders the undertaking valueless for its stated purpose.

I hope the staff and Minister of NS Environment will carefully consider these shortcomings and not approve this undertaking.

sincerely,

Earltown NS

From:	
To:	Environment Assessment Web Account
Subject:	Windy Ridge EA
Date:	July 5, 2024 11:35:11 PM

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Tim Halman Minister of the Environment & Climate Change

Comments on the Windy Ridge Wind Turbine project submitted for EA on June 5th, 2024 by EverWind Fuels.

A lengthy document that likely took them some time to put together yet the general public is given 30 days to comment which is not an adequate amount of time given the amount of data and complexity of the information contained. Notifications and the request for comments are for the most part on line. A significant portion of the population impacted by such projects is older or individuals that don't go on line to connect with govt projects but rather to Facebook and connect with family. Something to consider in the amount of responses you receive from the general public.

Your government has made several legislative changes over the past few years to not only the electricity act but also EA assessments to "update and clarify our legislation to position NS as a leader in green hydrogen production & to outline a clear regulatory path for businesses" (Oct 17/22 Tori Ruston Minister of Natural Resources and Renewables). In November 2022 the environmental assessments in NS were amended and in Dec 2022 you as the Minister of the Environment announced changes to "modernize the regulations to support environmental protection transition to clean energy" and that "the decision to subject green hydrogen facilities to a class 1 EA rather than a lengthier & more involved class 2 EA does not mean the system will have weaker checks and balances." The changes clarified the regulatory path for green hydrogen and to ensure businesses had a streamlined approval process. As a result both EverWind Fuels and Bear Head Energy received class I environmental approvals by your office to establish green hydrogen/ammonia production facilities at Point Tupper in Feb. 2023 & Apr. 2023 - despite the fact that it is not only an untested technology by companies with no experience (despite EverWind's declaration as being Canada's leading green hydrogen developer) but also involves the production of two chemicals that science has proven can have more severe impacts on the environment than fossil fuels. Yet by your departments assessment the production of said chemicals don't warrant the same due diligence enforced on oil and mining developments (for example).

In April 2022 five wind projects were approved by the provincial government under the rate based procurement, all with 25 year PPAs with NSP in the gov'ts bid towards their 2030 GHG reduction goals. Each project received EA by your department - even Wedgeport wind for 13 turbines - despite concerns from the federal government about the proximity to the nesting habitat of the roseate tern - an endangered species in Canada, where seventy five percent of the breeding population occurs approximately 15 km from the proposed turbines. Of course most "approvals" came with conditions, which all seem the same. I have never understood the stipulation of monitoring bird and bat populations for two years post completion - if the project actually decimates the populations will your department shut down the turbines ... I think not. The wind turbine projects approved by you and your department in 2023 (not including Windy Ridge) were 10 for a total of 194 turbines.

Your government announced the "Green Choice Program" Dec 1st, 2023 where large scale electricity customers will get 100% of their energy from renewable sources while concurrently launching a procurement process to secure new wind and solar projects that will generate 350 MW of renewable energy (closing date for submissions June

2024). A stipulation for this program is that land procured must be privately owned not crown land.

Following the announcement of the Green Choice Program your government quickly followed up with their Green Hydrogen action Plan December 15, 2023 which essentially supports both domestic use and export of electrolytic hydrogen and seems the basis for their green albeit hydrogen economy. The federal government in updating its own hydrogen strategy published a report in April 2024 outlining the progress of each Canadian province in establishing their own strategy. Of NS they reported that the govt had "made changes to the EA regulation activities to simplify the process, reduce administrative burden and enable major hydrogen projects to meet EA criteria more quickly."

EverWind fuels has submitted this EA to establish 49 industrial turbines to produce renewable energy not for the province but for the production of hydrogen/ammonia for export.

I have read through the GNSF submission and agree with all of their points and urge due diligence in moving forward with this approval that will set a precedent. That being said I doubt anything submitted to you or your department will make a difference in approving a project which falls within the perimeters of all the legislation passed to get to this point.

Sent from my iPad

From:	
To:	Environment Assessment Web Account; EA@gnovascotia.ca
Subject:	Windy Ridge EA comments part 2
Date:	July 5, 2024 10:39:24 PM

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Hello again - this is a continuation of my earlier note

I am opposed to this development b y Everwind Corp, masquerading as a Canadian Company, but is in fact, a New York Equity fund company, owned by an Australian, coming to Canada for subsidy harvesting to 'build a hydrogen facility' requiring wind power. This will rob our Province of valuable space needed for our own wind power to get us off fossil fuel generating electicity. They have no signed agreements to sell their products and will never compete economically with other countries better equipped and closer to markets than is Nova Scotia.

The Province is basing it's EA's on outdated regulations and is not equipped for an industrial wind mega project - from a severe lack of updated planning regulations to protecting the precious environment, population and wildlife. Climate change is obvious and this is NOT the time to destroy thousands of hectares of precious Nova Scotia lands, wetlands and forests by another money grabbing foreign corporation making outrageous promises they will never keep.

p. 1 of the EA has no real strategy for producing 'green' energy required for their project and will put our own system, which is nearly at capacity, at risk. I attended several Everwind 'openhouses' and found an appalling lack real information and an inability to answer most questions I & others posed

Public Engagement was a sham and is misrepresented in the EA Doc. When local people asked Everwind to have a Q & A in tatamagouche, they agreed and then outright lied to us saying they never agreed to that and refused to do more than the dog and pony show they constructed at least 9 times in various locations around the province.

P. 2 of the EA states that EWF is a leading green hydrogen producer, yet they have never built any thing related to hydrogen and the directors of the Equity fund backing the project have been lobbying the federal government in Ottawa making it appear that they actually have experience in this endeavour.

The owner, stated in his presentation to the Colchester Cty Council, that he would « solve the illness problems with moose by developing a pill or vacine. This is their EA's approach to wildlife management - not what I would call a rational comment.

We need to clean up and modernize our grid before giving or selling precious wind resources to foreign investors. This is another boondogle that many Nova Scotia governments have fallen for. Please do not follow this pattern. For once, listen to scientists, planners, environmentalists, tax payers. This is not a viable project and will destroy huge areas of the province.

I urge you to deny and reject this project and do the job us tax payers are paying you to do - respect us, the land, the resources, the water - do the right thing please.

sincerely,

From:	
То:	Environment Assessment Web Account; Environment Assessment Web Account
Subject:	Windy Ridge EA comments
Date:	July 6, 2024 7:57:06 AM

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In 30 days I did not have sufficient time to review the Windy Ridge EA. The whole process is geared away from public input as well as taxpayers!