



# Kmtnuk Wind Power Project Environmental Assessment Registration Document (EARD) - Comments from Ecology Action Centre

November 2023

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 fuelled 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.

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.

## Overall comments

### Project engagement

Engaging in a negotiation and collaboration process with all stakeholders, including local communities, regulatory authorities, environmental conservation groups, and other interested parties, is crucial to achieving "social license" and a good quality project that incorporates local knowledge and values. Based on what is shared in the EARD, and information we have received about public and government engagement, this project is lacking in several critical steps that can help in this process:

- Identifying Stakeholders: Identify and connect with *all* relevant stakeholders, including local communities, environmental groups, regulatory authorities, and other key actors.

- **Open Dialogue:** Initiate open and transparent dialogue with these stakeholders to understand *and act upon* their concerns, needs, and expectations regarding the project.
- **Clear Communication:** Provide clear and accurate information about the project, including its benefits, potential impacts, and mitigation measures, to all stakeholders. Ensure that communication is two-way and respond to stakeholder concerns through project changes.
- **Mitigation Measures:** Fully commit to implementing the necessary mitigation measures to minimize negative project impacts on the environment and local communities by agreeing to specific mitigation measures in a legally binding way.
- **Regulatory Compliance:** Ensure the project complies with all applicable environmental regulations through the lifetime of the project. Be transparent with community about all environmental compliance work.
- **Ongoing Monitoring and Reporting:** Implement a monitoring and tracking system throughout the project's life to ensure that agreements and mitigation measures are followed. Continually share monitoring and reporting results with community.
- **Conflict Resolution:** Be prepared to address and resolve conflicts or disagreements constructively and fairly, using mediation processes if necessary.

Open collaboration and negotiation are essential for advancing projects like the Kmtnuk Wind Farm. The focus on communication, transparency, and consideration of stakeholder concerns is crucial to building solid agreements that benefit all parties involved.

### Mitigation measures

The proponent should fully commit to critical mitigation measures outlined in the document addressing environmental and safety concerns and minimize potential harm. These should be stated in the Terms and Conditions of the EA Approval, when the project is Approved with Conditions by the Minister. Their implementation must be monitored regularly by the government/communities.

Here are some of the most critical measures:

#### Atmospheric Environment:

- Enclose or cover soil storage and stockpile areas to prevent dust.
- Cease dust-generating construction activities during excessive wind.
- Use low-sulphur diesel fuel to reduce sulphur oxide emissions.
- Regularly maintain equipment to ensure proper operations and fuel efficiency.

- Remove malfunctioning equipment and equipment with improperly functioning emissions control systems from service.

#### Geophysical Environment:

- Safe blasting practices and notification of landowners.
- Protect and restore wetlands whenever possible.
- Erosion and sedimentation control measures.
- Protection of water courses and habitat upgrades.
- Noise and vibration control measures.

#### Aquatic Environment:

- Protection of aquatic habitats, wetlands, and watercourses.
- Avoidance of impacts to wetlands.
- Water management systems and runoff control.

#### Terrestrial Environment:

- Minimization of habitat loss and fragmentation, especially for species at risk.
- Restoration and revegetation of cleared areas.
- Avoidance of disturbance during sensitive periods for priority species.
- Measures to prevent injury or mortality of bats and other wildlife.
- Light, noise and vibration control measures.

#### Socio-Economic Environment:

- Traffic and transportation management to minimize impacts on the community.
- Collaboration with local recreation groups to ensure access to recreational sites.

## Specific comments

### 2.2 Purpose & Need for the Undertaking

#### Need for Incremental Renewable Energy

This section is somewhat misleading as it positions the project as a contributing feature of Nova Scotia's energy transition to predominantly renewable sources of power. This project, despite using Nova Scotia's grid, is first and foremost for the production of green hydrogen and liquid ammonia. While hydrogen has been alluded to in future plans for powering the provincial grid, no current development plans have been announced. More so, the proponent has identified global export, particularly to Europe, as the main destination for these products. In order for the project to meaningfully contribute to our provincial emissions targets and energy transition, a certain percentage of the power produced



should be assumed by the grid for local use. **We encourage NSNRR and NSECC to ensure that a sufficient minimum power contribution to the grid by the project is legally binding, and at the very least prioritizes local/regional emergencies and peak demand over hydrogen production.**

This section should make clear that the primary function of this project is for private use despite being attached to Nova Scotia's grid and thus its contributions to climate and emissions targets in the region are more limited than it suggests.

### Need for the Project

This section attempts to make the case that the Province will benefit by being a "leader" in the "clean renewable energy sector" by developing a green hydrogen industry. The proponent should provide specifics in this section, including how many jobs the project will create. There is also vague reference to economic and social benefits, without any specifics, such as connections to current economic or community development plans.

The project only alludes to potentially contributing to Nova Scotia's renewable energy needs, sometimes. The following statement is made:

"In addition to green hydrogen production, energy produced by the Project will be made available to NS Power at times of peak electricity demand to directly supply customers in the province."

There would need to be commitments in place to ensure that the project makes any contributions to the energy used by Nova Scotians.

### Need for the Green Ammonia

This section of the EARD indicates that the ammonia produced and exported will primarily, at first, be used for ammonia-based fertilizers. While we can acknowledge that the production of green ammonia is certainly less environmentally degrading than blue or grey ammonia, there are still significant risks associated with the project's final product.

Industrial fertilizers produced with ammonia contribute to the over-nitrification of ecosystems through fertilizer runoff. Over-nitrification of wild ecosystems through fertilizer runoff exacerbates the biodiversity crisis (e.g., eutrophication and algal blooms), and worsens climate change (see <https://www.unep.org/news-and-stories/story/four-reasons-why-world-needs-limit-nitrogen-pollution>). The manufactured fertilizers themselves contribute a substantial amount to global CO<sub>2</sub> and N<sub>2</sub>O emissions (see <https://www.pnas.org/doi/pdf/10.1073/pnas.2121998119>).

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.

As mitigating climate change and ending the biodiversity crisis is a global effort, we must be conscious of the impacts Nova Scotia enables both locally and globally to GHG emissions and biodiversity restoration through the industries we encourage. When the Kmtuk Wind Power Project is used to create hydrogen, which is converted to ammonia, and sold for nitrogen fertilizer, it actually risks exacerbating climate change and biodiversity loss.

### 3.1 Geographical Location

The Study Area is defined by property boundaries. The Project Area is the direct footprint of some of the project infrastructure. The Assessment Area was created by buffering certain parts of the project infrastructure (e.g., turbines, roads), by a certain amount (e.g., 150m around turbines, 50m from centre of roads). The extent of the Assessment Area seems arbitrary. Provide an Assessment Area based on *all* project infrastructure in which buffers are based on likely extent of potential impacts (e.g. 200m from turbine base because this is the area where bird strikes with turbine blades are most likely to occur). Also include temporary project components in the Assessment Area and in assessments.

The project is proposed on provincial Crown land and privately-owned land. The proponent should provide a map showing land ownership type and their project. None of the maps show which parcels are Crown land and which are private.

#### 3.1.1 Siting Considerations

In general, it is good that the project design attempted to maximize the use of existing roads and cleared areas, and reduce the need to create new roads. It is also beneficial that the project has attempted to avoid areas important for conservation, including wetlands and watercourses. However, using, building, and upgrading roads still add to the decline of biodiversity in Nova Scotia. The project still commits to:

- 19km of existing roads to be used/upgraded
- 16km of new roads to be made
- In some cases, the need is for 12m wide roads for cranes to move (but the roads could be smaller (6m wide) if "crane is mobilized via a float truck"?)
- Roads are actually 17m to 20m wide including ditching and grading

The impact to wildlife mortality, habitat loss, and landscape-level habitat connectivity is downplayed in the EARD, yet these very real impacts will occur. There are opportunities to reduce these impacts even further by committing to fewer roads, narrower roads, and use of smaller trucks and equipment.



Temporary infrastructure, like roads and laydowns areas, can also have short-term and long-term impacts, which are also made to seem quite minimal in the EARD. The project should minimize these impacts wherever possible, such as seems to be considered here:

“Temporary wind turbine laydown areas may be up to 250 m by 100 m, which includes clearing limits and any overburden. There is currently two temporary turbine laydown areas under consideration.”

Provide a map showing the road network, turbines, and any other infrastructure of the nearby Nuttby Mountain Wind Farm, which is mentioned repeatedly in the Kmtnuk Wind Power Project EARD. The proponent should describe where the access road that will be created west of Turbine 11 will go to.

### Removal of Temporary Works and Site Restoration

Where temporary work sites and infrastructure, or ultimately the entire operation, are to be decommissioned and remediated, commit to better restoration of the site. Why is a “Hydroseeder” used? Help damaged sites along their restoration trajectory by using native plants, and by actively removing roads.

### 3.3.2 Operations & Maintenance

“A vegetation management plan will be initiated to ensure that access roads and turbine locations remain clear of vegetation. Timing of vegetation management will depend on site specific conditions and requirements by the Proponent and/or their operations and maintenance contractors.”

The Proponent should commit to not using herbicides or pesticides as part of their vegetation management plan. Additionally, salt should not be used on the roads, as this also damages vegetation and other species (and can have long-term effects on nearby watercourses and wetlands).

### 3.3.4 Environmental Management & Protection

“An Environmental Protection Plan (EPP) will be developed following EA approval.”

The EPP should be made available publicly once it is created and should be shared with the CLC.

### 5.2.1 EverWind and Mi'kmaq Engagement

In this section the proponent claims that funds for cultural training have been provided for various Nova Scotia not-for-profits. The proponent should include the names of the organizations and funding amounts allocated.



## 6.1 Engagement with Government Departments, Agencies, & Regulators

### Table 6.1: Government Meetings and Events

In the section for Municipal Government, the follow up presentation indicated for the council of the Municipality of Colchester was not held until less than 2 weeks prior to the date of submission for EARD comments. In section 6.1.1 Review of government concerns, the report adds that “all regulators emphasized the importance of sharing Project information early and in detail, to support the permitting and administrative processes.”

From both attendance at the council meeting following Everwind’s presentation, and correspondence with attendees to this presentation, the impression given was that the proponent was consistently vague when asked for specific details regarding the project. Given the scale and location of the project, the municipality should not be left in the dark with respect to planning details, particularly when public/Crown lands are involved.

## 6.2 Public & Stakeholder Engagement

The EARD cites several groups with which the proponent has “engaged,” however, what has really happened is outreach by the proponent. With regards to the Ecology Action Centre, Healthy Forest Coalition, Living Earth Council, Nova Scotia Nature Trust, and more, the proponent did not connect in any way with a person from these groups. Most outreach did not lead to actually engaging in a conversation. What the EARD frames as “engagement” should be reframed as outreach. Ultimately, the project has engaged with very few of the stakeholders.

### 6.2.3 Public Open House Events

To increase participation and accessibility by all community members, we encourage the proponent to include childcare or child-engagement at public engagement sessions such as open-houses.

To further increase accessibility of these events, we would encourage the proponent to host a virtual attendance session(s) for future open houses, job fairs, and consultations and for continued public engagement on the project moving forward.

### 6.2.3 Public Open House Events

In feedback from community members, we were informed that during an open house, no representatives of Kmt nuk Wind Ltd or its parent companies, Membertou Development Corporation and Everwind Fuels, were present, and instead only consultants were available for public questions. More so, it was found that these members of the project team were somewhat ill equipped to provide detail on the project. Appropriate representation by proponents should be required at public open houses to meaningfully hear and address concerns and build relationships within the community.

To increase participation and accessibility by all community members, we encourage the proponent to include childcare or child-engagement at public engagement sessions such as open-houses. To further increase the accessibility of these events, we would encourage the proponent to host a virtual attendance session(s) for future open houses, job fairs, and consultations and for continued public engagement on the project moving forward

#### 6.2.4 Review of Concern

“The Project Team also answered questions and took feedback, both verbally and through written forms, about concerns and interest from the local community and various stakeholders” (p.g. 43)

**We have heard from open house attendees that details requested of the proponent during these open house sessions, such as percentage of power generated for the local grid, were not responded to on multiple occasions. Effort to connect with these community members should be made, with details provided at the earliest opportunity.**

We would like to emphasize that meaningful and effective engagement is a necessary component of all project development, particularly for ones of this scale. In order to begin the process of engagement, the proponent should commit to relationship building with the community and operate with high levels of transparency to begin garnering social license and trust. Engagement must be improved and made consistent throughout the lifetime of the project and remediation period.

Under the *Environmental Assessments* section of Table 6.3, it refers to a “full desktop review and extensive field surveys” completed for environmental impacts (p.g. 42). We encourage NSECC to require the proponent, in the terms and conditions of this project's approval, to make these studies, and all data collected by the proponent (and their consultants) publicly available to the surrounding community in order to promote efforts towards data sovereignty.

In Table 6.3, responses to community benefits are mentioned, including the community subsidy fund, community vibrancy fund, and bursary program. These benefits and information on distribution, eligibility, and timelines should be detailed in this EARD and on the 'Benefits' section of the proponent's website, as opposed to solely in the presentation document and community benefits agreement. These figures should also be included in all engagement material and EARD. Commitments to these benefits should additionally be included in the Terms and Conditions of the EA approval.





## 6.2.7 Ongoing Engagement

The EARD describes that the proponent will create a Community Liaison Committee (CLC). Greater detail on when the CLC will be formed, timeline for their involvement, and how representatives will be selected is needed. Similar to the federal Impact Assessment process, a plan for public participation and engagement opportunities for the rest of the project could be formed which may also highlight regular meetings and with the CLC and how information will be disseminated to the greater public.

We encourage the proponent to compile information from surveys and studies conducted for the EARD into a more accessible and comprehensive format for distribution to the community. The amount of technical detail involved in the EARD, and sheer length of the report can make it highly inaccessible to a public audience. Results of valued component assessments should be synthesized and presented in a condensed format that includes plain language summaries and graphics.

Associated data and reports conducted through the EA process and over the course of the project's lifetime should be made available freely and indefinitely to promote data sovereignty, transparency, and understanding within the communities and rightsholders that steward the land and waterways in the study area. This request excludes results from the project's MEKS as sharing this knowledge is to be decided by the Nations and knowledge keepers it was compiled with, as per the principles of [OCAP](#) and [CARE](#).

To ensure that this project benefits the surrounding community throughout and beyond its lifetime, we recommend that the requested data and summaries be a condition in the Terms and Conditions of this EA approval.

## Biophysical Environment

### 7.1.2 Climate Change

The calculations of the contributions to climate change from the project are incomplete. The EARD for the KmtnuK Wind Power Project does not account for the emissions of transporting the ammonia from the Point Tupper green hydrogen plant to Europe (or other locations), and the impacts from shipping were also not calculated in the EverWind Point Tupper Green Hydrogen/Ammonia Project Environmental Assessment (see section 13.3.4 from the Point Tupper Green Hydrogen/Ammonia Project EARD). Both EARD do not consider the option of using the green hydrogen and ammonia domestically to reduce negative impacts to climate change by removing the need for shipping.



### 7.1.2.9 Effects Assessment - Project-GHG Interactions

The conclusion that “Results are characterized as a positive effect within the LAA, medium duration, continuous, irreversible, and significant (positive)” are inaccurate because the negative impacts of shipping on climate change have not been included.

### 7.4.1.6 Effects Assessment - Project-Terrestrial Habitat Interactions

The conclusion that “Effects to terrestrial habitat associated with the Project have been assessed, including habitat loss and habitat creation. Based on this assessment and through the implementation of proposed mitigation strategies, effects to terrestrial habitat are expected occur within the LAA and be of low magnitude” is inaccurate. Impacts to terrestrial habitat could be further reduced by the recommendations we made in this document, and potentially by further recommendations made by DNRR. Also, studies on a terrestrial fauna species, Wood Turtle, have not been completed yet, so the analysis of the impacts on their habitats is incomplete.

### 7.4.2 Terrestrial Flora

#### **Lichen**

During field surveys for lichen, 5 lichen species were observed that fall under the federal Species at Risk Act, the Nova Scotia Endangered Species Act, or both. The proponent describes only one species, Frosted glass-whiskers (*Sclerophora peronella*), as being listed under the At-Risk Lichens - Special Management Practices (NSNRR, 2018b). In fact, 3 other lichen species identified within the Study Area are also listed in the Special Management Practice (i.e., Blue felt lichen *Pectenaria plumbea*, Eastern waterfan *Peltigera hydrothyria*, Wrinkled Shingle Lichen *Pannaria lurida*). **The EARD should describe how the Special Management Practice that applies to each of the other lichen species as well will be followed during construction, operations, and decommissioning of the project.**

There does not seem to be any Drawings (i.e., maps) of the locations of lichen observed during lichen assessment sub-contracted by Strum Consulting in 2022. Were maps produced from the location coordinates of lichens observed? If so the EARD should state this. If maps were removed from the EARD for reasons of sensitivity about the locations of rare species, this should be stated. If all rare species location data was sent to DNRR this should be stated.

### 7.4.3 Terrestrial Fauna

#### **Mainland Moose**

There were 8 observations of evidence of moose over the course of multiple surveys in 2022 – 2023. New and old pellets, tracks, browse, and a potential lay-down area were observed. The area is within Core Habitat for Mainland Moose, and modelling has

predicted that high-quality moose habitat is within the Assessment Area (and potentially the Study Area – this is not clarified in the EARD). However, the following statements are made that attempt to minimize the potential negative impacts to moose:

“Given the ubiquity of moose observations made, it appears that the Study Area supports a population of Mainland moose for at least part of the year. Based on results to date, moose seem to be most concentrated in the northern half of the Study Area. Mid-aged to mature forest stands in the Assessment Area may provide escape cover and relief from deep snows and hot summer temperatures, while regenerating cutovers provides suitable forage. An abundance of wetland habitat in the Study Area also provides important and suitable habitat, specifically large bogs. Moose tracks were also observed along gravel roads and overgrown logging trails, providing linear features for easy passage across the Study Area. The absence of no sign of Mainland moose within the Assessment Area in winter 2022 may indicate that moose are less likely to use the Study Area during the winter, possibly owing to the deep snow cover that accumulates during winter in this relatively high elevation area.”

“The Mainland Moose Recovery Plan identifies three localized groups of Mainland moose within the province, one of which being the Cumberland/Colchester group (NSNRR, 2021f). The Recovery Plan has defined Core Habitat of each group through habitat suitability modeling and found that the Cumberland/Colchester group requires an area of approximately 5,300 km<sup>2</sup> of Core Habitat to meet recovery objectives. This area overlaps with the Study Area and is approximately 170 km<sup>2</sup> more than the current amount of modelled Core Habitat in the Recovery Plan.”

“The creation of wider road ROWs will increase the space for early successional vegetation, creating new foraging opportunities for moose adjacent to this built infrastructure that may eventually become suitable habitat.”

“From the results of field surveys and desktop analyses, the magnitude in which habitat fragmentation will affect Mainland moose within the LAA and RAA is low.”

“Mitigation measures will be implemented to minimize impacts; however, the amount of high quality habitat remaining within the RAA and the extent of preexisting linear features across the landscape indicate that the magnitude of Project-related impacts to Mainland moose life history will be low.”

These statements that attempt to minimize the project's impact on Mainland Moose by downplaying the need to keep suitable habitat intact in the Assessment Area. Clearly moose are currently using the habitat (during at least 3 seasons of the year), and clearly modeling of habitat suitability in the area is working – most of the actual moose evidence observation are in areas modeled as suitable habitat. Moose are using the Assessment Area despite the fact that some of the habitat has been degraded by the creation of roads and by forestry activity.

The proponent should avoid altering or disturbing all Core Habitat and all high-quality Mainland Moose habitat. This species is Endangered in Nova Scotia, and one of the specific threats to its recovery is roads, including roads from wind farm projects. Additionally, the Province has been delinquent in implementing measures to protect and recover the species, likely beleaguering it further. It is incumbent upon the proponent to design, construct, and maintain the project using the information available that indicates areas to avoid (i.e. Core Habitat and high-quality habitat).

The idea that wider road ROWs will create new foraging habitat for Mainland Moose at the side of the road is unsubstantiated and not a net positive. Of note: collisions with vehicles on roads is a threat to Mainland Moose.

Road construction and upgrading will contribute to habitat fragmentation, a threat to Mainland Moose. The EARD attempts to minimize this by pointing to the approach of making use of existing roads where possible, but this does not mean that 16 km of new roads would not have a substantial negative impact.

New roads also mean an increase in two other threats to Mainland Moose: easier access for White-tailed Deer, and for poachers. Both are documented threats to Mainland Moose, both threats increase in Mainland Moose habitat when new roads are created. The proponent should not minimize these threats, as is done in the EARD.

The proponent looks to the broader area to support moose. The EARD claim that there is enough suitable habitat outside the Assessment Area but in the RAA and LAA are unsubstantiated. The proponent does not control lands outside the Study Area and therefore does not control what happens to Mainland Moose habitat in the vicinity of the project. Habitat in the Study Area may be needed to support the recovery of Mainland Moose.

The statement “Based on this assessment and through the implementation of proposed mitigation and monitoring activities, effects to terrestrial fauna are expected to be of low magnitude and within the RAA” is false. There are surveys that must still be completed on terrestrial fauna, specifically Wood Turtle. The proponent has not provided evidence that the destruction of Mainland Moose Core Habitat is not of high magnitude with regards to its negative impacts.

## **Wood Turtle**

The EARD states: “Ten watercourses within the Study Area were characterized as potentially suitable for summer forage and basking habitat for Wood turtles by CBCL biologists.” But then the EARD goes on to conclude that: “With the majority of these watercourses being generally quite shallow, they were also deemed to be unlikely to support hibernation.” But the CBCL report on turtle habitat notes that: “West Branch North River is a large permanent watercourse within the Study Area. It crosses the Project Area at one location near the southernmost portion of the Study Area. It was not assessed as part



of the fish habitat assessment since it is known fish habitat. However, this watercourse is probably the most likely watercourse within the Study Area to support Wood Turtle foraging habitat, and it may support hibernating habitat in some areas along its length.”

Watercourse and wetland surveys were paired with surveys for turtles and turtle habitat; these surveys were completed by CBCL. These surveys were completed between August and December in 2022. This not a suitable time of year to search for Wood Turtles, a federally- and provincially-listed Species at Risk (Threatened) that is suspected in the Assessment Area. The report by CBCL recognizes that surveys did not follow “NS DNRR’s 2018 Wood Turtle Survey Protocol)” with regards to the survey timing. **The proponent must survey the Assessment Area, including above and below watercourse crossings, at the West Branch North River, for Wood Turtles, during the time of year most likely to detect the hard-to-find Wood Turtle (i.e. April and June, with water temperatures are above 6°C or air temperatures are above 9°C).** In fact, the CBCL report recognizes this deficiency: “To fully assess the likelihood for turtle presence within watercourses, targeted turtle surveys should be conducted in identified areas of potentially suitable aquatic turtle habitat during the appropriate season. The preferred timing window for Visual Encounter Survey (VES) for Wood Turtles in Nova Scotia is late April to late May (McLean, 2018) when air temperatures are above 9°C, and the weather is generally sunny. For construction projects, NS DNRR recommends Wood Turtle VES in May, prior to leaf emergence, and another immediately prior to the commencement of site clearing and construction activities (Laverty, Pers comm, 2020).”

The proponent has committed to targeted turtle surveys in 2024: “In-season turtle surveys will be conducted in Spring 2024 to confirm whether turtles are found within the Assessment Area.” **The Minister should not approve this project until these surveys are completed, and the reports based on these surveys are reviewed and incorporated by NSDNRR staff.**

## Bats

The EARD makes the following statements regarding bats:

“Impacts to bats as a result of habitat fragmentation and removal are anticipated to be minimal based on the widespread existing disturbance/fragmentation in the Study Area along with the Project’s maximized use of existing roadways.”

“Individual bat injury/mortality as a result of wind turbine operation is possible; however, based on low observed bat activity and existing disturbance (forestry, recreational, etc.) within the Study Area, impacts to bat SOCI populations at a regional scale or population level are not anticipated.”

These statements are not supported, and are maybe contradicted by evidence in the EARD. At least 4 species of bats were recorded using the project area, despite habitat degradation and fragmentation from past site use by humans. And was the observed bat



activity actually low? What is the local population level, and how are populations doing at a regional scale? Are these species also experiencing the same and other threats at a regional scale, and to what degree? The assertion that the project does not create impacts to bats at a regional or population level has no basis.

Regarding bats, the conclusion that “results are characterized as moderate magnitude, within the LAA, medium duration, continuous, reversible, and not significant” is not accurate.

### **Avifauna/ Birds**

“Four Common Nighthawks were observed during the surveys on July 13 and 14, each at different survey location. Two individuals were performing wing booms.”

Common Nighthawk wing booms often indicate that a territory or nest has been established very close to where the wing booms were observed. It seems very much that Common Nighthawk are breeding in the area.

The EARD goes on to state that roads and turbine pads may provide suitable nesting habitat for Common Nighthawk. That may be true, but then the EARD does not recognize the very real threat that the turbines themselves will pose to Common Nighthawks through bird strikes.

*Mitigation Measures* to reduce potential impacts to birds can be improved:

- Use navigational hazard lights that are on-demand instead of lights that are on all night, every night. Commit to this in the EPP and the Terms and Conditions of any EA Approval.
- Stop the use of the turbines during times of peak migration and when Common Nighthawk are at the project site.

The conclusion that “Based on this assessment and through the implementation of proposed mitigation and monitoring activities, effects to avifauna are expected to be of low magnitude, within the LAA, of medium duration, intermittent, reversible, and not significant” is not substantiated. The bird strikes associated with the 35+ years of wind turbine use are likely significant for the bird Species at Risk detected in the study area. Many bird species pass through the Study Area during migration, and several are likely breeding in the Study Area (despite the EARD downplaying this likelihood). The proponent should enact the additional mitigation measures listed above, and likely other measures too.

#### 7.4.3.6 Effects Assessment - Project-Terrestrial Fauna Interactions

The conclusion that “While effects to mammals, herpetofauna, and insects differ, the effects considered to be of greatest concern include habitat loss, habitat fragmentation,



and associated disruption of the life history of populations within these groups. Based on this assessment and through the implementation of proposed mitigation and monitoring activities, effects to terrestrial fauna are expected to be of low magnitude and within the RAA" is inaccurate. Again, studies on terrestrial fauna, namely Wood Turtle, have not been completed yet, so the analysis of the impacts on their habitats is incomplete. These studies could provide data that should be used to modify the project to reduce impact to this species.

### Watercourses and wetlands

Field surveys identified 139 wetlands/wetland fragments, either partially or fully within the final iteration of the Assessment Area.

The proponent notes that the most common type of wetland in the area are swamps and that, of all the swamps 63 were classified as treed swamps. It is vital that the proponent takes special consideration of how the project will impact treed swamps both directly and indirectly. This swamp type is particularly important to avoid alteration to because: 1) it is very difficult to restore or create treed swamps; 2) they are biodiversity hotspots; 3) they are being altered at a higher rate than other types of wetlands in the province.

To expand on the above, the results from a recent 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 at-risk 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

We are pleased to see that the proponent has demonstrated that in areas where wetland alteration is unavoidable, the detailed design phase will refine the layout, wherever possible, to have wetland crossings along wetland edges or narrow portions of the wetland to further minimize the impacts to wetland habitat and function. Furthermore, all necessary wetland crossings will be designed to avoid any permanent diversion, restriction, or blockage of natural flow, such that the hydrologic function of the wetland is maintained. It is important to ensure hydrological function is maintained in the wetlands; these wetland crossings should also take special care to not impact wildlife and important habitat.

The proponent notes that “one wetland was determined to be a WSS based on the presence of flora SAR (refer to Section 7.4.2 for CBCL flora assessment details). This information was taken into consideration when designing the Project Area, and infrastructure will be oriented to avoid the portion of the wetland that directly supports the identified SAR.” Later on however, the proponent writes, “no field delineated wetlands were found to directly support SAR within the Assessment Area, thus confirming the Functional WSS Interpretation Results.” The proponent should confirm the presence of SAR at this particular wetland. Furthermore, if it is determined that the wetland does support SAR, **the entire wetland should be avoided, not just the “portion of the wetland that directly supports the identified SAR.”**

The proponent writes that “the results of the field assessments indicate that there is a potential for 86 Project-wetland interactions to facilitate Project developments for a total of 9.42 ha. Significant effort was made to maximize existing disturbed areas, with 16 km of new road being constructed, and 19 km of previously existing road being utilized. As such, 49 of the 86 potential alterations would be associated with upgrades to existing roads (if determined to be required during the detailed design phase). The remaining 37 potential alterations would stem from construction efforts, including road construction (23) and turbine pad construction (14)”. As mentioned in our comments above (see sections 3.1.1 Siting Considerations, and 7.4.3 Terrestrial Fauna), *while we are pleased to see effort by the proponent to use existing roads where possible, there are concerns with the addition of new roads. We have provided suggestions of how the impact from road creation and upgrades can be minimized further. In addition, the proponent should continue to improve the site design into order to avoid more wetland alterations. For example, **why not move Turbine 20 so that the access road to it does not run through a wetland?***

The proponent discusses that “Where unavoidable, complete wetland alterations in accordance with the NSECC Wetland Conservation Policy (2019) and the wetland alteration process during the permitting stage, which includes a requirement to compensate for lost wetland habitat and functions.” The proponent should aim to have compensation for wetland alteration take place at or as close to the project site as possible. This will help to ensure that as little wetland coverage in those specific sub-watersheds, watersheds, and ecosystems is lost.

#### Value Component – Light

“Lighting associated with the Project will be minimal, and the turbines will be un-lit at night (apart from a red navigation hazard light mounted on the turbine’s nacelle).” This red navigation hazard light can be light on-demand and thereby reduce light pollution, which affects birds and other species. See new Germany requirement for on-demand navigational lights on turbines.

The mitigation measure “restrict on-site lighting, especially at night, to limit disturbance” can be enhanced beyond what is said in the EARD. The proponent should commit in the



EARD and Terms & Conditions (if the project is Approved) to on-demand navigational hazards lights, as opposed to lights that are constantly on a night.

### Cumulative effects assessment (page 296)

With regards to other wind farm projects in the vicinity of the proposed Kmt nuk Wind Power Project:

“The Nuttby Mountain Wind Farm is a 50.6 MW wind energy development located within the northeastern portion of the Study Area and Assessment Area.”

“EverWind Fuels is currently developing the Windy Ridge Wind Project (340 MW) to the west of the Project. Additionally, the Higgins Mountain Wind Project (17 wind turbines) and the Westchester Wind Project (15 wind turbines), which both received EA Approval earlier in 2023, are in development further to the west, near the communities of Londonderry and Westchester Mountain, respectively.”

The distance to the Nuttby Mountain Wind Farm is not stated, but it overlaps with the currently proposed Kmt nuk Wind Power Project. The proponent should state in the EARD the distance to the Windy Ridge, Higgins Mountain, and Westchester Wind Projects. There are a lot of wind project in close proximity to the proposed Kmt nuk Wind Power Project!

The cumulative effects assessment should be redone to include these other undertakings that could impacts the same VCs in the same ways, therefore very relevant to assessing cumulative impacts. The EARD states that the Nuttby Mountain Wind Farm project has been submitting post-construction bat and bird monitoring data to NSECC. Without seeing or analyzing these data the EARD states that “the anticipated cumulative effects on bats and avifauna from the operation of the combined wind developments are anticipated to be not significant.” Based on what?! Also, there are other industrial activities/developments in the area – forestry and agriculture. These are mentioned in the EARD but not evaluated regarding their cumulative impact on VC in Table 14.2. Forestry activities threatened some of the same VC, and same species, as were identified as potentially impacted by the Kmt nuk Wind Power Project in the EARD. There would be cumulative impacts as a result of habitat loss and fragmentation due to the proposed project in addition to the habitat loss and fragmentation caused by nearby forestry activities.

The whole cumulative effects assessment in the EARD is pretty baseless and poorly done.

**The Minister should require that the proponent complete an actual cumulative effect assessment before determining if the project can go ahead.**

## 8.1 Economy

### 8.1.3 Effects Assessment - Project-Economy Interactions



More detail needed on how the project proposes to contribute to boosting local energy literacy and energy systems understanding.

The proponent states that a job fair will be held prior to the construction of the project to engage local talent, as well as investing in a bursary for renewable energy education. Given the 1-4 years required to attain most training required for employment on a wind turbine project, bursaries and scholarships should be made available as soon as possible and well before construction of the project starts. Information regarding eligibility for these scholarships, how to apply, and how long they will be available should also be made available on the website as well as circulated through neighbouring communities, high schools, and post-secondary campuses once finalized in the Colchester County Benefits agreement. As mentioned above, commitments to these bursaries should be part of the community benefits included in the project's EA approval to ensure that the proponent is meaningfully investing in the just transition of Nova Scotia's labour force.

### 8.2.3 Effects Assessment - Project-Land Use and Value Interactions

“A recent study mentions that given the traditional energy industry's impacts on conservation in both direct and indirect ways, wind energy can be seen as a complementary land use to conservation and protected areas in a broad way, as wind energy is not a carbon emitter (Wind Europe, 2017). Given the context of Nova Scotia where the traditional energy source has primarily been coal, land use for wind energy can be seen as a positive step.”

This is an insufficient assessment of land-use valuation for conservation as it does not take into account the features that are considered desirable for land conservation. In Nova Scotia these features include the presence of species at risk, the presence of older forest, and the potential for a site to aid in landscape-level ecological connectivity – these features are all present at the Kmtnuk Wind Power Project site. The proponent should provide a more holistic and updated assessment of effects to the value of the study area for conservation or protected area land-use. The lack of this type of assessment is indicative of the larger need for both municipal and provincial land-use planning to take a more holistic approach and incorporate the values of “undeveloped” or conserved land into land valuation.

