la Convention
de la Baie James
et du Nord québécois

COMEX

Comité d'examen des répercussions
sur l'environnement et le milieu social
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Sent by email only

Québec City, July 28, 2021

Isaac Voyageur
Regional Administrator for Chapter 22
of the James Bay and Northern Quebec Agreement
Cree Nation Government
284, Queen Street, Suite 202
Mistissini (Québec) G0W 1C0

OBJECT : **Whapmagoostui Kuujjuaraapik Hybrid Power Plant Project by the Kuujjuarrapik Whapmagoostui Rewnewable Energy Corporation**
Environmental and social impact assessment study
Questions and comments
N/Réf : 3219-10-001

Mr. Voyageur,

The Review Committee (COMEX) received, on April 23, 2021, for recommendation, the environmental and social impact assessment for the project mentioned above.

Following the analysis of the documents, COMEX wishes to obtain additional information on various aspects of the project that should, in its view, be clarified. For this purpose, you will find below the questions and comments to be address to the proponent. Once COMEX has obtained the required information and has completed the analysis of the submitted documents, a recommendation regarding this project will be sent to you.

To facilitate understanding, the questions and comments are grouped according to the order presented in the impact study. For this reason, the proponent is invited to respond by following the same sequence. Sections for which no questions are asked are not shown.

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1. CONTEXT
1.8 Alternatives to the project

QC-1. The proponent indicated that an alternative site (T1) was not selected due to concerns raised by certain interest groups, including hunters. In section 3.1, however, the proponent indicates that this site remains an alternative solution in the event of an adjustment to the project before its construction.

The proponent will be required to present in detail the concerns raised by the interest groups and land users regarding the alternative site (T1). The proponent will have to explain the rationale in retaining the alternative site (T1) as an alternative solution and explain the circumstances that would force the proponent to use this alternative site rather than the selected site.

The COMEX wishes to inform the proponent that an application to amend the Certificate of Authorization will have to be submitted to the Regional Administrator if an alternative location is selected after an authorization.

2. DESCRPTION OF THE ENVIRONMENT
2.3 Description of the components of the biological environment

Avian fauna

QC-2. This section presents the results of the bird inventory conducted in 2012 and 2013. However, the Ministère des Forêts, de la Faune et des Parcs (MFFP) considers that the validity of raptor migration data in the context of bird inventories, notably for wind turbine projects, is 5 years. Due to the presence of two species considered vulnerable in the Québec, the Peregrine Falcon and the Golden Eagle, it is strongly recommended that the proponent renew the raptor migration inventory for this project, before construction begins, to determine whether additional mitigation measures are required. The proponent must indicate the mitigation measures taken, if applicable.

For future reference, the proponent must take into consideration the validity period (5 years) for data collected during a bird inventory if the proponent later wishes to either expand the wind turbine project or include additional wind turbines, all of which would increase the environmental impact of the project.

Bats

QC-3. This section presents the results of the bat inventory carried out in 2013. However, since 2018, the MFFP considers that the data regarding the presence of bats species in a study area must be renewed at the beginning of each project, to be as current as possible. The MFFP therefore considers that the results of the 2013 bat inventory are no longer valid. In addition, the MFFP noted that this inventory was only partially compliant with the provincial protocol as only the fall migration period was covered during the 2013 bat inventory. The *Protocol for acoustic inventories of bats in the context of wind turbine installation projects in Quebec* (MRNF, 2008) stipulates that the bat inventory must also cover the breeding period.

Although the presence of bats could not be confirmed in the study area and, consequently, the impact of the project on bat species was considered minimal, with only partial results dating from 2013, a new impact assessment regarding bat species should be conducted. Moreover, the flight range of several bat species may extend further north than is currently known. The proponent must therefore carry out a new bat inventory before the construction of the project, in accordance with the *Protocol for acoustic inventories of bats in the context of wind turbine installation projects in Quebec,* to establish a new baseline. In the event of the presence of bats in the study area, the proponent will be required to submit appropriate mitigation measures. Regarding mitigation measures for bat populations, the promoter is invited to consult the article published by the MFFP in 2017[1].

For future reference, the proponent must take into consideration the validity period (1 year) for data collected during a bat inventory if the proponent later wishes to either expand the wind turbine project or include additional wind turbines, all of which would increase the environmental impact of the project.

Fish

QC-4. It is specified that the fish inventory was carried out at three separate stations for a total fishing effort of 96 hours. Of these three stations, two stations were in two separate lakes and the third station was in a permanently flowing stream. The flowing stream selected for this study is, in fact, located north of the study area, outside the settlement area. In addition, the presence of Brook trout was confirmed during the fish inventory, however, the environmental impact study does not provide any details regarding which site(s) this species was observed.

The proponent should focus on streams and waterbodies located within the project's area of influence. More specifically, the characterizations of lakes and watercourses affected by the construction and upgrading of access roads, as well as tie lines. The proponent must therefore characterize, before construction begins, the sites where tie lines cross watercourses or other waterbodies, notably if the installation of poles and anchors is planned in the shoreline, in the same way that it has undertaken to characterize fish habitat at the sites of the three watercourse crossings that were to be built before the start of the project. The result of the characterizations of the affected watercourses will help determine the need for mitigation measures.

3. PROJECT DESCRIPTION

3.4 Implementation Phases

Construction and improvement of roads and work areas

QC-5. The proponent indicates that the watercourse crossings will be installed in accordance with the main standards of the *Regulation respecting the sustainable development of forests in the domain of the State* (RADF). Recall that Whapmagoostui/Kuujjuaraapik is located in the bioclimatic domain of the lichen woodland and the RADF must be applied in this territory. Therefore, the

[1] https://mffp.gouv.qc.ca/our-publications/bat-mortality-caused-by-wind-turbines/?lang=en

proponent must comply with RADF standards to protect fish and fish habitat when constructing watercourse crossings.

For example, the construction of a watercourse crossing is prohibited within the first 100 meters upstream of a spawning ground (section 89 of the RADF), and not within the first 50 meters as proposed by the proponent in section 6.3.2. The proponent must therefore incorporate the regulatory requirements of the RADF for all applicable types of work on the project that are governed by RADF standards.

Transport and traffic

QC-6. The environmental impact study mentions that 800 m^3 of concrete will be required, the equivalent of approximately 100 trips of concrete mixers from a temporary concrete manufacturing site. However, the environmental impact study does not mention the location of that site or the characteristics of that cement plant.

The proponent must therefore provide the location of the temporary concrete manufacturing site, as well as the characteristics of the cement plant, including the duration of its operation, the methods of storing residual granular materials, the nearby presence of watercourses, waterbodies or wetlands and a wastewater management plan, including the location of the discharge point.

It should also be noted that the proponent must specify whether an application for a ministerial authorization, in accordance with paragraph 10, paragraph 1, of section 22 of the EQA or a declaration of compliance (if eligible under the terms of section 127 of the Regulation respecting the regulation respecting the regulation of activities according to their impact on the environment (REAFIE)) would be required for the establishment of a cement plant. If a ministerial authorization should be issued, modeling the dispersion of air emissions from the cement plant may be required.

QC-7. It is also indicated that authorizations for the borrow pits will be obtained in advance. However, the environmental impact study does not provide an estimate of the required quantities of granular material (sand and gravel) or the location of the borrow pits. To assess the possible impacts (noise, dust, etc.), the proponent must submit an estimate of the quantities of granular material that will be required, as well as the location of the borrow pits.

In addition, the proponent must specify whether new quarries or sand pits will be required or whether the operating capacity of existing ones has been assessed. Where applicable, the proponent must assess the impact of the project on the latter.

QC-8. In Appendix E (Section 4.11 *Workshop – Online Sessions with Cree Regional Entities*), the proponent states that the equipment will be transported by barge from Wemindji. The proponent indicates in section 3.4.2.3 of the environmental impact study that the components of the wind turbines will be transported by truck and boat.

What are the anticipated impacts of these transportation activities, including the potential impacts for the Cree Nation of Wemindji?

The proponent must validate that the road network can support and allow proposed traffic loads and dimensions. It will also have to confirm whether measures will be put in place to mitigate the effects generated by these transportation activities during the construction phase.

4. PUBLIC CONSULTATION PROCESS

QC-9. The environmental impact study contains several references regarding the concerns of hunters and land users in the study area, but a detailed report is not included in Appendix E. The proponent must detail the meetings that took place with the tallyman, the concerns raised during these meetings and how they were addressed.

The Proponent must detail the meetings and consultations that took place with the general community, including suggestions and concerns raised during the Whapmagosstui First Nation General Assembly to be held in July or August 2021.

4.5 Main modifications to the project following public consultations

QC-10. The proponent indicates that it will consider the possibility of installing a fence and appropriate signage on the periphery of wind turbines sites for safety reasons and protection in relation with possible ice fall. The proponent must indicate whether these measures have been retained and, if so, provide details on the size of the fenced area and access restrictions to the area. The proponent will also have to indicate whether the land users in the area have been consulted on the design of the fence.

6. ANALYSIS OF IMPACTS AND MITIGATION AND COMPENSATION MEASURES

QC-11. The environmental impact study does not present any mitigation measures for the temporary concrete manufacturing site. The proponent must specify whether mitigation measures are planned for the temporary concrete manufacturing site as well as for the maintenance and cleaning of the concrete mixers.

6.4 Impacts of the physical environment

Wetlands

QC-12. The proponent submitted a cartographic estimate of wetlands in the project area. The MELCC wishes to remind the proponent that all wetlands must be demarcated, with proper boundaries, in accordance with section 46.0.3 of the EQA. It should also be noted that any encroachment in a wetland will result in a request for a ministerial authorization under article 22, 1st paragraph, paragraph 4, of the EQA.

If the project results in wetland losses, the proponent must demonstrate how they applied the avoid-minimize-compensate sequence. If, even after applying this sequence of actions, residual wetland losses occur, the proponent will be required to submit appropriate compensation measures.

6.5 Impacts on the biological environment

Avian fauna

QC-13. The proponent states that the construction phase may disturb nesting birds in the study area. However, additional impacts could also be caused by deforestation. This project could result in the loss of nesting habitat for several bird species, including the Rusty Blackbird, a species likely to be designated threatened or vulnerable in Quebec, during deforestation near wetlands. However, no mitigation measures are presented in relation to deforestation. The proponent must plan mitigation measures to reduce impacts on nesting birds, notably that deforestation should be carried out outside the general bird nesting period in Québec, approximately from May 15 to August 15.

QC-14. The proponent indicates that ptarmigan, an important species for the Cree, are present in the project area. Ptarmigans are likely to collide with the base of the wind turbine. There are measures that would mitigate impacts on this species (for example, the use of contrast paint for the base of the wind turbine). The proponent will be required to indicate what measures are planned to mitigate the effects on this species.

In this regard, we invite the proponent to consult the example from the following literature: https://onlinelibrary.wiley.com/doi/full/10.1002/ece3.6307

Terrestrial mammals

QC-15. This section states that the study area affects a portion of the wintering area of the migratory caribou of the Rivière aux Feuilles herd. However, it does not present an assessment of the impacts of the project on this species.

While it is true that this site is not particularly frequented by the species, the environmental impact study identifies the caribou as a species hunted in the study area. Hunting is one of the traditional activities that has been described as of great importance in the proponent's impact assessment. It would therefore be relevant to assess the possible disturbance and avoidance effect that the wind farm could have on the caribou and thus, its potential effect on hunting activities.

In this regard, we invite the proponent to consult the example from the following literature:https://onlinelibrary.wiley.com/doi/pdf/10.1002/ece3.2941.

6.6 Impacts on the human environment

Land use

QC-16. The proponent has committed to do a follow up with hunters to assess the impacts on the goose hunt in the spring and fall. Will these inquiries be carried out annually and for the entire life of the project? Will these inquiries include

asking about changes in geese migration such as changes in their behaviour or their trajectory?

Socioeconomic context

QC-17. Considering that the training program planned for 2022 will take place in Gaspé, the promoter must indicate what contributions will be done to support local candidates interested in taking this program outside their community.

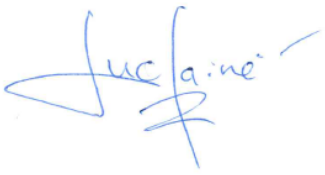
6.7 Cumulative impacts

QC-18. In the section on cumulative impacts, the proponent cites two other wind projects located hundreds of kilometres from the site in question. However, in the consultation report (Appendix E, Section 4.11 Workshop – Online Session with Cree Regional Entities), the proponent mentions the Whapmagoostui First Nation's investment in the Eeyou Power project for wind projects south of the community. The proponent must adjust the cumulative effects section to take into account the potential cumulative impacts of the project(s). Given that the current objective of the project is to provide, at most, between 40 and 50% of the electricity for the two communities from wind energy, the proponent will have to present how his project aligns with other potential projects. The proponent will also have to present the subsequent phases that could increase the proportion of electricity generated by his project and reduce the use of fossil fuels and GHG emissions.

8. SUIVI ENVIRONNEMENTAL

QC-19. Although the 2013 bat inventory presented to the environmental impact study could not confirm the presence of bats in the study area, the MFFP recommends that bats still be included in the mortality monitoring program planned for avian fauna, regardless of whether these inventories are updated. In addition, the *Protocole de suivi des mortalités d'oiseaux et de chiroptères dans le cadre de projets d'implantation d'éoliennes au Québec* (MDDEFP, 2013 – French only), stipulates that mortality monitoring must be carried out during the first three years, but also every ten years during the entire operation phase of the wind farm. However, section 8.1 Faune avienne mentions that the follow-up planned by the proponent will only be carried out during the first three years of operation. The proponent must incorporate this clarification into its bird and bat mortality monitoring to ensure that monitoring is not limited to the first three years of operation.

Best regards,



Luc Lainé
Chairman
The Environmental and Social Impact Review Committee