

FORM

Preliminary information

PREAMBLE

The James Bay and Northern Québec Agreement (JBNQA), by its chapters 22 and 23, establishes a system of protection for both the natural and social environment in the James Bay and Northern Quebec region. Depending on the type of project, some aspects of these chapters may report under the responsibility of the Government of Canada, or the Government of Québec or both levels of government. Some projects can also be reported under the responsibility of the Cree Nation Government, notably for projects conducted on Category IA lands. Title II of the [Environment Quality Act \(EQA\)](#) presents the environmental and social impact assessment and review procedures applicable in the James Bay region (section 133 of the EQA) and in Northern Quebec (section 168 of the EQA).

The projects mentioned in schedule A of the EQA are subjected to one of the procedures applicable in the Northern environment, contrary to those mentioned in schedule B, which are exempt from the procedures. Projects not outlined in either schedule are considered “grey zone” projects. Anyone who intends to undertake a project in a northern environment covered by schedule A of the EQA must apply for a certificate of authorization. For “grey zone” projects, a proponent must request an attestation of exemption and the Provincial Administrator will confirm to him, after analysis of the project by the northern committee concerned, whether the project is not subject to the [Environmental and social impact assessment and review procedure](#) or if it is subject to it. In the first case, an attestation of exemption will be issued to the proponent for the project and, in the second, a directive will be prepared and sent to him, which will indicate the nature, scope and extent of the impact study he must prepare. Thus, except for the projects listed in schedule B, a proponent must file a preliminary information form with the Provincial Administrator of the JBNQA.

If necessary, it is possible to confirm whether your project corresponds to an activity listed in schedules A and B of the EQA or a “grey zone” by sending an e-mail request for verification of exemption, including a short description of your project, its location and the anticipated impacts at the following email address: dgees-assujettissement@environnement.gouv.qc.ca.

The preliminary information form is used to describe the general characteristics of a project. It must be completed in a clear and concise manner and the information must be limited to the elements that are relevant for a proper understanding of the project, its anticipated impacts, and possible ramifications.

In accordance with the EQA, the preliminary information form is either sent to the Evaluating Committee (COMEV), if the project concerns the region south of the 55th parallel (James Bay), or to the Kativik Environmental Quality Commission (KEQC), if the project concerns the region north of the 55th parallel (Nunavik). These two committees review the preliminary information and, in the case of projects covered by schedule A of the EQA, produce a recommendation on the directive indicating the nature, scope and extent of the study impact that the proponent must prepare. For “grey zone” projects, these committees produce a recommendation (COMEV) or a decision (KEQC) on whether the project is subjected to or exempt from the procedure. These recommendations and decisions are then forwarded to the Provincial Administrator who communicates his decision to the proponent. The proponent may be issued an attestation of exemption for projects that are exempt from the procedure or issued a directive for those subjected to the environmental and social impact assessment and review procedure.

The Evaluating Committee is a tripartite advisory body composed of representatives appointed by the Cree Nation Government and representatives of the Government of Canada and the Government of Quebec. The Kativik Environmental Quality Commission is a bipartite body of Inuit or Naskapi representatives appointed by the Kativik Regional Government and representatives of the Government of Quebec. While performing their duties, both bodies pay particular attention to the following principles, which are outlined in sections 152 and 186 of the EQA:

- a) the protection of the hunting, fishing and trapping rights of the Native people;
- b) the protection of the environment and social milieu;
- c) the protection of the Native people, of their societies, communities and economy;
- d) the protection of the wildlife, of the physical and biological milieu and of the ecological systems of the territory;
- e) the rights and guarantees of the Native people in Category II lands;
- f) the participation of the Crees, Inuit and Naskapis in the application of the environmental and social protection regime provided for in this division;
- g) any rights and interest of non-Native people, and
- h) the right of the persons acting lawfully to carry out projects in the territory.

Also note that the preliminary information form will be published in the [Environmental assessment register](#) (French only) as defined in section 118.5 of the EQA but only for projects for which a directive will be issued. The [COMEUV](#) and [KEQC](#) also publish preliminary information form on their websites.

Since May 2022, the applicant for any authorization must produce, as a condition for the issuance of an authorization, the applicant's declaration of background (déclaration d'antécédents). This declaration replaces the declaration of the applicant. You will find the form to be completed at the following address: <https://www.environnement.gouv.qc.ca/evaluations/declaration-antecedents.pdf> (French only).

The preliminary information form must be accompanied by the payment, charging the proponent for services provided under the environmental authorization system. This payment can be made by check to the ministre des Finances or via bank transfer. Details regarding the applicable rates are available in the [Tarification](#) section (French only) of the environmental assessment web page. It should be noted that the MELCCFP will not process the application until payment is received.

Once completed, the proponent must send its preliminary information form together with a letter of transmission, which must be sent to the JBNQA Provincial Administrator:

- Send the electronic copy of the documents (form and letter of transmission) to reception.30e@environnement.gouv.qc.ca including the Deputy minister (marie-josée.lizotte@environnement.gouv.qc.ca) as well as Vanessa Chalifour, coordinator/team leader for northern projects (vanessa.chalifour@environnement.gouv.qc.ca). The letter of transmission must confirm that the hard copies are consistent with the electronic ones. In case of large electronic documents, please consult the last bullet.

- Send a hard copy of the documents (French) to the Deputy minister office at the following address:

James Bay and Northern Quebec Agreement Provincial Administrator
Deputy minister of the Environment, Fight against Climate change, Wildlife and Parks
Édifice Marie-Guyart, 30e étage
675, boul. René-Lévesque Est, boîte 02
Québec (Québec) G1R 5V7

- Send the other hard copies and the USB keys (including the French and English versions) to the Direction de l'évaluation environnementale des projets industriels, miniers, énergétiques et nordiques at the following address:

Mélissa Gagnon, director
Direction de l'évaluation environnementale des projets
industriels, miniers, énergétiques et nordiques
Ministère de l'Environnement, de la Lutte contre les changements climatiques, de la Faune
et des Parcs
Édifice Marie-Guyart, 6e étage, boîte 83
675, boul. René-Lévesque Est
Québec (Québec) G1R 5V7

Projects located south of the 55th parallel (James Bay)

Nine (9) hard copies, including six (6) in French and three (3) in English

Three (3) PDF copies in electronic format

Additional copies may be requested depending on the scope of the project.

Projects located north of the 55th parallel (Northern Quebec/Nunavik)

Fourteen (14) hard copies, including seven (7) in French and seven (7) in English

Three (3) PDF copies in electronic format

Additional copies may be requested depending on the scope of the project.

- If the electronic documents are very large: Inform the Direction de l'évaluation environnementale des projets industriels, miniers, énergétiques et nordiques (vanessa.chalifour@environnement.gouv.qc.ca) and a secure link allowing you to send your documents on the ShareFile platform will be shared with you. This link will be valid for a period of 7 days. Attach the letter of transmission to the email, indicating that the electronic version will be transmitted via the ShareFile platform of the DGÉES.

1. IDENTIFICATION AND COORDINATES OF THE PROPONENT

1.1 Identification of the proponent	
Name: Tarquti Energy Inc.	
Civic address: 19950 Clark-Graham Avenue, Baie-D'Urfé, H9X 3R8	
Postal address (if different from civic address):	
Name and function of the signatory(s) authorized to submit the application: Justin Bulota, Project Development Director	
Telephone: 514 882-0725	Telephone (other): -
Email: : justin.bulota@tarquti.ca	
1.2 Company number	
Québec enterprise number (NEQ): 1172949480	
1.3 Resolution of the municipal council, band council, northern village, or responsible body	
If the proponent is a municipality, the preliminary information form is accompanied by the resolution of the municipal council, band council, northern village, or the responsible body duly certified authorizing the signatory(s) of the application to present it. Add a copy of the resolution to appendix I.	
1.4 Identification of the consultant mandated by the proponent (if applicable)	
Name: PESCA Environnement	
Civic address: 895, Perron Boulevard, Carleton-sur-Mer (Québec) G0C 1J0	
Postal address (if different from civic address): N.A.	
Telephone: 418-364-3139	Telephone (other): N.A.
Email: mcastonguay@pescaenv.com	
<p>Description of mandate: PESCA Environnement's multidisciplinary team of over 65 professionals across Canada has provided environmental consulting services for 32 years. It has carried out numerous environmental impact studies in several Canadian provinces' energy and industrial sectors. Since 2004, PESCA Environnement has drafted over 50 environmental impact assessments for wind, solar, and hydroelectric power generation projects.</p> <p>PESCA Environnement offers Tarquti the versatility and availability of its professionals, as well as diversified expertise applicable to all phases of our projects. During project development, its professionals conduct preliminary studies and analysis of configuration parameters, wildlife and plant inventories, noise climate, landscapes, and visual simulations. The PESCA team is responsible for drafting the environmental impact study. PESCA Environnement professionals will help Tarquti prepare communication plans and participate in public consultations during the project environmental analysis process. Prior to construction activities, PESCA Environnement will assist Tarquti in preparing authorization and permit applications. During project construction, PESCA Environnement will provide environmental monitoring and surveillance services. During the operation, it will carry out the environmental monitoring stipulated in the government decree, relating, for example to birds and bats, the sound climate or the landscape.</p> <p>Contact:</p> <p>Ms. Marjolaine Castonguay, Biologist, M. Sc. 895, Perron Boulevard, Carleton-sur-Mer (Québec) G0C 1J0 Phone number: 418,364-3139 Email: mcastonguay@pescaenv.com www.pescaenv.com</p>	

2. GENERAL PRESENTATION OF THE PROJECT

2.1 Project title

Project of ... (construction/extension/development/etc.) of ... (installation/equipment/factory/etc.) in the territory of ... (municipality/village/community)

Project to build and operate a 3 MW wind turbine on Quaqtaq territory.

2.2 Article of accordance

To verify the accordance of your project, indicate which paragraph of schedule A of the Environment Quality Act your project is subjected to, in your opinion, and why (threshold, for example). Indicate if your project is considered a “grey zone” project, if applicable.

The proposed project is the installation of a 3 MW wind turbine in the community of Quaqtaq. The project will be located more than 4 km from the village, on the community’s Category I lands. This type of project is not listed in Schedules A and B of the Environment Quality Act. It is, therefore, considered a grey zone project.

2.3 Objectives and justification of the project

Indicate the main objectives and highlight the reasons for implementing the project.

Quebec and Canada have set ambitious targets to reduce their GHG emissions by 40% by 2030 and achieve carbon neutrality by 2050. Hydro-Québec, our long-term customer, also aims to supply 80% of its autonomous networks with clean energy by 2030. In order to achieve those targets, the community of Quaqtaq, in partnership with Tarquti – the project’s developer and operator –, wishes to build and operate a 3 MW wind turbine on its territory. The community’s goal is to reduce their dependence on diesel and the GHG emissions from Hydro-Québec’s thermal power plant. In developing and operating this turbine, Tarquti Energy is implementing the principles of its framework agreement with Hydro-Québec to reduce diesel consumption by bringing about the energy transition of Nunavik communities. At the same time and with the community's support, Tarquti aims to create an Inuit-owned project that will fully benefit the local community environmentally, economically, and socially.

2.4 Brief description of the project and alternatives

Briefly describe the project (length, width, quantity, voltage, surface, etc.) and for each of its phases (development, construction, and operation and, when appropriate, closure and restoration), briefly describe the main characteristics associated with each of the project alternatives, including planned activities, developments, and construction (deforestation, expropriation, blasting, backfilling, etc.).

Founded in 2018, Tarquti Energy was born of an agreement between Makivvik Corporation and Ilagisaq (the Federation of Cooperatives of Nouveau-Québec) to oversee Nunavik's energy transition and ensure social and economic benefits for Nunavik communities. Tarquti is proud to be the clean energy developer owned and operating in Nunavik!

Inspired by the Inuktitut language, the word "tarquti" symbolizes the tool made of ivory or caribou antler needed to maintain the flame (ikuallak) of a qullik, a soapstone lamp on which the Inuit depended for their livelihood. The qullik carries great significance in Inuit culture, although today, it is used mainly for ceremonies and gatherings. The terminology surrounding the qullik is an apt metaphor for Tarquti's work since the creation of the joint venture. The "qullik" represents communities, the "ikuallak" represents energy, and the "tarqut," appropriately, is the tool used to nurture the "ikuallak" (energy).

This is the background to Tarquti's creation as a regional company. Tarquti, after all, is the instrument Nunavik communities use to take charge of the energy transition and significantly reduce their carbon footprint and dependence on fossil fuels. Tarquti's community-based approach aims to empower local entities, including local landholding corporations and cooperatives, to take action on climate change while putting forward their ideas, interests, and values in renewable energy projects.

Tarquti's mission relies on a growing team that is committed and motivated to implement a sustainable transition to renewable energies. The team also enlists the expertise of the industry's leading service and equipment providers to support local leaders in the development of their renewable resources, including solar, wind and hydro.

Tarquti is working on the energy transition and developing clean energy projects in all Nunavik communities. The agreement with Hydro-Québec calls for projects in 12 communities, taking into account that some clean energy projects are already underway in Inukjuak and Whapmagoostui/Kuujuarapik. Tarquti is evaluating wind and solar power combined with energy storage as promising vectors for decarbonizing communities, and solutions such as hydroelectricity in communities where this is feasible.

Nunavik's communities depend entirely on diesel for power generation, building heating, and transportation. According to data collected by FCNQ Petroleum for the year 2022, a total of 62 million litres of diesel were consumed to fulfill the needs of Nunavik's 14 villages. The breakdown of this diesel consumption by sector is as follows.

Power generation (44%): 27.8 ML
Building heating (44%): 27.8 ML
Transport (12%): 7.6 ML (excluding gasoline and jet fuel)

Nearly 90 million litres of petroleum products (diesel, gasoline, and jet fuel) are consumed annually by Nunavik's 14 communities.

The project:

Tarquti is evaluating the feasibility and implementation of a 3 MW wind power project in the community of Quaqtac in Nunavik, northern Quebec. The selected site is located south of the community, more than 4 km as the crow flies from the nearest residence.

This project will substantially reduce diesel consumption, cut CO₂ emissions associated with electricity generation, reduce exposure to oil price fluctuations, offer the possibility of decarbonizing building heating and, finally, open the door to the eventual electrification of transport.

Pre-project studies are currently underway, including a wind measurement campaign to assess the wind resource and develop a wind map of the Quaqtac region, which has enabled the selection of an optimal site for the erection of a wind turbine in Quaqtac. The measurement data at the tower were correlated with long-term trends of Vortex's data to estimate the turbine's average output over 20 years.

A pre-feasibility study initiated in 2023 will determine the logistics chain, including freight costs, preferred routes, local and maritime constraints, and an assessment of the risks associated with transporting project components (wind turbines, machinery, cranes, etc.).

On the civil side, the study is assessing the route between the access road and the wind farm site, drainage areas, the positioning and size of the wind turbine pad, the route of the power line, and site preparation for installing the wind turbine foundation. The study also included an analysis of geotechnical procedures to adequately prepare the geotechnical drilling campaign on the chosen site. A site visit and 3D modelling were used to quantify the volumes of local natural material required for the road infrastructure, as well as the quantity of aggregate to be crushed for the rolling surface.

The project's reference case for evaluating logistical, civil, and cost studies is based on choosing a large-scale wind turbine: the 3 MW Enercon E-82 E4. This wind turbine will reduce diesel consumption for electricity generation by up to 72%, or 0.8 million litres of diesel each year. As such, the project has a very high penetration rate of renewable energy. This configuration will enable Hydro-Québec to completely shut down the plant's generators when the wind resource is sufficient and stable.

To adequately represent the increase in electrical load for the village of Quaqtq over the 25-year life of the project, we have used as a reference the electrical demand estimates for the village of Quaqtq (provided by Hydro-Québec) for the year 2035.

The initial project configuration calls for widening an existing 4.8-kilometer seasonal access road. Field surveys show this existing road has a current width of 4 to 5 metres. To ensure the safe transport of wind turbine components and necessary equipment, the road surface must be widened to 6 metres. Some road sections must be raised above the natural terrain, especially where culverts are to be installed. In no case will the road exceed 10 metres in width.

The project will include:

- A work area of up to 100 m × 100 m for the construction of the wind turbine (which will be optimized as much as possible for economic reasons, scarcity of granular material, and to reduce the footprint);
- A foundation anchored to rock or on piles (the results of the geotechnical study will dictate the type of foundation to be used);
- A 3 MW Enercon E82-E4 wind turbine;
- A 25 kV transmission line on wooden poles running along the access road to a substation to be installed near Hydro-Québec's thermal power plant.

The energy generated by the wind turbine will be integrated into a substation at Hydro-Québec's thermal power plant, reducing or eliminating diesel consumption during windy periods. An EVLO 2 1650 energy storage system, with a capacity of 2.4 MW in power and 2.8 MWh in energy, is planned to be installed in an existing Hydro-Québec building and will be used to smooth out fluctuations in wind energy while ensuring the electrical load of the entire community during spontaneous wind turbine fault events. This storage system is to be built and operated by Hydro-Québec.

According to the wind measurement campaign conducted by Tarquti, the 3 MW Enercon wind turbine will produce an average of 8.75 GWh of energy per year.

The life of the project is a minimum of 25 years. Once this period is over, two options are considered in Tarquti's business model.

- Option 1, the most plausible, is to repower the turbine. Repowering a wind turbine involves replacing it with a newer, generally more efficient, turbine or mast/turbine/blade assembly. This option gives the turbine a second life for another 25 years.
- Option 2 is to dismantle the facility altogether. This would involve returning the wind turbine components that the community cannot use on a ship south, recycling the wind turbine components that can be recycled, and finally rehabilitating the site to its natural state or making the wind turbine platform available to the community for future development or other community need that may arise at that time.

Considering preliminary engineering studies, weather conditions, Quaqtq's location, and the nature of its region, there is no better technical or economical alternative to the project. The energy output of an equivalent solar project would be lower during the winter solstice periods, which would limit the community's efforts to decarbonize. In addition, the footprint of such a project would be substantially larger. There are no existing rivers next to the community for a hydroelectric project.

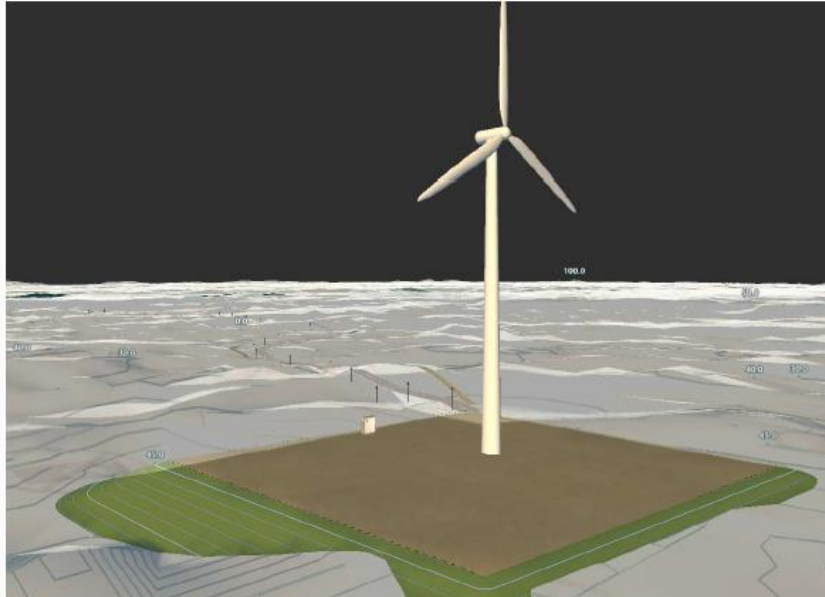
If relevant, add to appendix II all the documents allowing to better understand the characteristics of the project (diagram, sketch, cross-section, etc.).

2.5 Related activities

Summarize, if applicable, related planned activities (ex: road access, crushing or milling, installation of a cofferdam, stream diversion) and any other projects that may influence the project design.

Work Area

During construction, the work area will be prepared to accommodate the wind turbine. This maximum area of 10,000 m² – or a maximum surface area of 100 m × 100 m – will be optimized to reduce the footprint and considering the shortage of granular materials throughout Nunavik. The lateral slope of the work area will have a ratio of 3:1, as illustrated below:



*Preliminary 3D model of the wind turbine work area
(note that green does not represent grass and is only a visual representation of the side slope)*

Access Road

A permanent access road leading to the work area will be required. It will use an existing road over 20 km long that provides access to hunting grounds for the community of Quaqtaq. This current road, commonly used in summer and not plowed in winter, is 4 to 5 m wide. Some sections of this road are submerged by streams that cross them perpendicularly, forcing vehicles to drive into them.



An example of a stream crossing the existing road, forcing vehicles (ATVs, cars, and trucks) to drive in the water.

These road sections will have to be raised to allow the installation of culverts.

The road will be rehabilitated to allow the raising of certain crossings and the installation of new culverts. It will be widened to 6 m to accommodate long, bulky components.

Construction of a new 400 m section of road will be required at the beginning of the access road to ensure year-round accessibility. During windy periods, a snow bank buries this section of road as it cuts through rocky terrain. By moving away from this rocky mass, we move away from where snow accumulates, and it will be much easier to drive on the road in winter.



Section 1: The new 400m section of road (Access upgrade 1) is shown in red, and the existing section of road running along the rocky hill is shown in orange.

In addition, a few short sections of the road will be adjusted to improve the curvature radius and allow the creation of a road suitable for transporting wind turbine components to their final location.



Section 2: The road sections where drainage ditches will have to be installed are indicated in green, while the road area to be modified (Access upgrade 2) to give it a straighter profile is shown in red.



Section 3: The road sections where drainage pipes will have to be installed are indicated in green, while the road area to be modified (Access upgrade 2) to give it a straighter profile is shown in red. The green star indicates the planned location of the 3 MW wind turbine.



An example of a 6 meter-wide access road leading to the wind turbine at the Raglan mine in Nunavik.

Crushing

According to preliminary studies by Hatch, approximately 50,000 m³ of crushed rock will be required to build and raise the access road. It is estimated that a 450 mm thick granular recharge will be required on the 5 km of existing roads to increase road capacity and support loads.

Early quantities

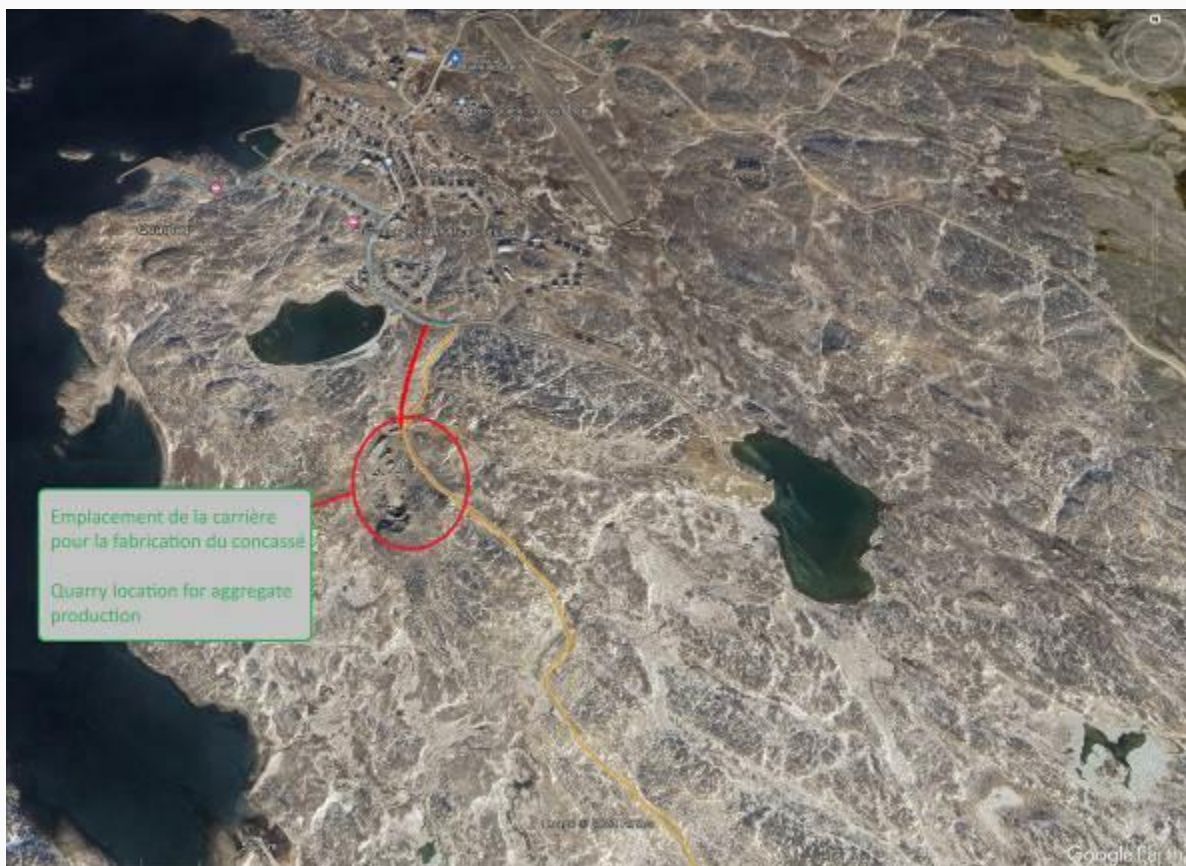
An Early estimation of quantities has been done in order to start thinking about resources, logistics and costs

Item	Quantity	Type	Unit
Access Road	10 000	Crushed Material	M ³
Wind Turbine Pad	3000	Crushed Material	M ³
	21765	Natural Material	M ³
Access Upgrade 1	975	Crushed Material	M ³
	3145 (3775)	Natural Material	M ³
Access Upgrade 2	1160	Crushed Material	M ³
	8960	Natural Material	M ³
Culverts	50	CSP pipe	Lm.

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Preliminary quantities of crushed rock and natural material necessary for Quaqtq's wind power project

This crushed rock will come from an existing and operational quarry at the beginning of the road leading to the future wind turbine (see image below). This aggregate quantity estimate will be refined following the geomatics campaign results analysis (done by drones and land survey) in September 2023. The results of this geomatics campaign are expected in November 2023.



The location of the existing quarry and of Kautaq Construction's crushing equipment currently mobilized in Quaqtq.



Crusher and equipment mobilized at the Quaqtaq quarry



Quaqtaq quarry (autumn 2023)

Culverts and Drainage

According to preliminary studies, 50 linear metres of culverts will be required where there is natural water flow (sections indicated in green in the preceding images). The culverts installed will be made of corrugated steel, with diameters ranging from 900 to 1,800 mm, and will be wrapped in geotextile. These culverts, installed under the road, will provide adequate drainage and stabilize the road during rain events and spring melt.

Power Line

The electrical link between the wind turbine and the Hydro-Québec power station will be made via a 25 kV overhead line on wooden poles, approximately 5 km long. The wooden poles will be installed along the main access road, 50 m apart. The poles will be 22.9 metres (45 feet) high, and two guy-wires will be attached every 10 poles to avoid a domino effect. A 3 metre-wide service road will be built along the main access road in order to facilitate the installation of the power line. This service road will use only local natural material (push to place). No aggregates from the quarry will be required for this service road.

Wind Turbine Foundation

The wind turbine foundation will be anchored to rock or on piles to ensure stability on permafrost. The results of ongoing geotechnical studies will determine the type of foundation required. In both cases, the concrete used will be 95% less than for a conventional gravity wind turbine foundation. Should a pile foundation be chosen, 12 406-millimetre-diameter piles will be drilled so they can be embedded in sound rock. A reinforcement cage will be inserted in each pile, filled with arctic grout.



An example of a rock-anchored foundation



An example of a pile foundation

Transporting the Wind Turbine

Unlike the images below, the village of Quaqtaq does not have a deep-water wharf. To get the parts to the turbine site, the components will be unloaded from the ship piece by piece directly onto flatbed trailers parked on barges. Following the tides, the barges will bring the equipment to the unloading beach. The flatbed trailers will then be hooked up to trucks so they can deliver the components to the wind turbine site. Approximately 30 to 40 truck passages will be required to transport all the components of the wind turbine and the 800-ton crane.



Unloading an 800-tonne crane from a ship in Nunavik



Ship carrying wind turbine to Deception Bay, Nunavik



Unloading a 40 meter wind turbine blade from a ship in Nunavik.



Ship carrying a wind turbine to Deception Bay, Nunavik

Wind Turbine

The planned wind turbine is the Enercon E82-E4, with a hub height of approximately 80 m above ground level. Two wind turbines of the same model have been in operation since 2014 and 2018 at the Raglan mine, located some 230 km northwest of Quaqtaq. They produce stable energy year-round and enable the Raglan mine to avoid burning around 5 million litres of diesel yearly.



The two wind turbines in operation at Raglan Mine

The maximum overall height of the wind turbine (with a vertical blade) will be 120 m. The tower will be made of steel and comprise 5 sections. The wind turbine will feature fibreglass blades with integrated forced air de-icing systems at each edge. This will maximize production and prevent ice projection during icing episodes.

It is planned to have the wind turbine shipped directly from Germany, arriving at the start of the Nunavik navigation season in 2026. An 800-tonne hydraulic crane will erect the turbine, which will be transported by ship in the spring of 2026. A smaller 90-ton (minimum) crane will also be needed to ensure tandem lifts (rotation of wind turbine components from horizontal to vertical position).

3. PROJECT LOCATION AND SCHEDULE

3.1 Identification and location of the project and its activities		
<p><i>Name of the municipality, village, or community where the project is located (indicate if several municipalities, villages, or communities are affected by the project):</i></p> <p>The project is located in the Nunavik region, on the village of Quaqtac territory. The site selected for construction is on Category I land.</p>		
<p>Land categories (I, II and III): Category I</p>		
<p>Geographical coordinates in decimal degrees of the central point of the project (for linear projects provide the coordinates of the project start and end points):</p> <p>Central point or start of the project: Latitude: 61° 0' 2.77"N Longitude: 69° 38' 50.38"O</p> <p>Project end point (if applicable): Latitude: Longitude:</p>		
3.2 Description of the project site		
<p><i>Describe the main components of the physical, biological, and human environments likely to be affected by the project by focusing on the description on elements considered to be of scientific, social, cultural, economic, historical, archaeological, or aesthetic importance (environmental valued components). Indicate, if applicable, the ownership status of the lands where the project is planned, as well as the main features of the site: zoning, available space, sensitive environments, wetlands and bodies of water, compatibility with current uses, availability services, topography, presence of buildings, aboriginal land use and occupation, etc.</i></p> <p>Tarquti Energy, in partnership with the community of Quaqtac (namely the Tuvaaluk Landholding Corporation and the local cooperative), wishes to realize a project that will be Inuit-owned and directly benefit the local community. The revenues generated and the hiring of local agents for the construction and operation of the wind turbine will have positive economic and social spin-offs.</p> <p>By making the energy transition a reality, the community will eventually be able to convert diesel heating systems to dual-energy systems powered by clean electricity when sufficient and available. As such, they will electrify truck, snowmobile, ATV and electric bikes (3 electric bikes have been raffled during the renewable energy symposium (Sillitik) in Inukjuak in August 2023), thereby helping to reduce GHG emissions. The community is already committed to this energy transition – improving air and water quality is a preoccupation.</p> <p>Converting from diesel to electric heating is essential to decarbonize the community substantially and use the surplus wind power that would usually be rejected. This conversion will be possible with the support and commitment of the government entities that own 80% of Nunavik's housing stock, as developed and implemented in Inukjuak.</p> <p>The project site is located on a bedrock massif composed mainly of gneiss and ultramafic rock.</p> <p>The project area is predominantly in prostrate shrub tundra, where vegetation does not exceed 20 cm in height and mineral substrate regularly outcrops at the surface. The terrain is flat, with elevations ranging from 10 m to 80 m.</p> <p>A few small lakes and ponds are located near the proposed site. The wind turbine will be installed at a minimum distance of 150 m from these bodies of water.</p> <p>Various bird species frequent the site (snowy owl, Canada goose, snow goose, gulls, ptarmigan, and potentially golden eagle, peregrine falcon, short-eared owl, and bald eagle). Mammals that frequent the site include arctic foxes and various rodents—occasional sightings of muskox, migratory tundra caribou, and polar bears.</p> <p>A characterization of wetlands, waterways, and bird and bat inventories is currently underway in the project area. Particular attention is being paid to special-status species.</p> <p>No traditional hunting or camping destinations, camps or cabins are located within 2 km of the project site.</p>		

3.3 Project schedule

Provide the implementation schedule (estimated period and estimated duration of each step of the project) considering the time required for the preparation of the impact study, if applicable, and the progress of the procedure.

Two transport options exist to bring the various project components to Quaataq: by boat or by plane. Necessary equipment and major components will be shipped by boat, setting the possible construction period from June to October. People, small goods, and perishables will be transported by air.

Civil Works

Civil engineering work will begin in the summer of 2025, with the access road modifications and the wind turbine work area layout. The turbine's foundation will be built on piles (12 x 406 mm diameter piles drilled down to bedrock) or using rock anchors if sound bedrock is present at the surface. The type of foundation will be determined following laboratory analysis of the rock cores recovered during geotechnical drilling in August 2023. Results of this analysis are expected in Winter 2024.

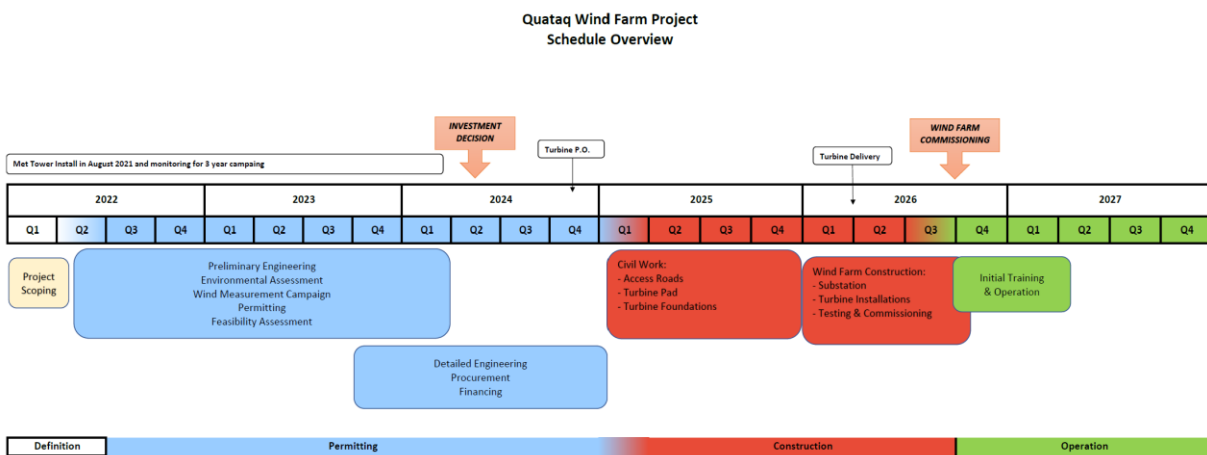
Erecting the Wind Turbine

Erection of the wind turbine and construction of the power line are scheduled for the summer of 2026, with initial start-up (MSTI) in December 2026.

Energy Storage

In addition, Hydro-Québec plans to install EVLO2 1650 batteries (2.4 MW, 2.8 MWh) in an existing, purpose-built building to support the integration of intermittent energy.

The work schedule for the Quaataq wind power project is shown below.



3.4 Location plan

Add to appendix III a topographic or cadastral map showing the location of the project and, if applicable, a plan for the location of development or activities on an appropriate scale indicating any existing infrastructure and its relation to the proposed work site.

See Appendix III.

4. INFORMATION AND CONSULTATION ACTIVITIES OF THE PUBLIC, ABORIGINAL COMMUNITIES AND USERS OF THE TERRITORY

4.1 Information and consultation activities carried out

If applicable, indicate the terms and conditions relating to the public information and consultation activities carried out as part of the project design (methods used, number of participants and represented areas), including those carried out with the local populations, among others the Crees, Inuit and Naskapi, as well as the users of the territory, and indicate, if needed, the concerns raised by the public and whether these concerns were taking into consideration in the design of the project.

Between 2018 and 2023, Tarquti and occasionally Hydro-Québec representatives met with Quaqtq officials to present the project. The officials met were the project partners (managers and board members of the Tuvaaluk Landholding Corporation, as well as members of the local cooperative) and the project stakeholders (mayor, managers, and representatives of the Quaqtq municipal council). The most recent meeting took place the week of July 13, 2023, when two Tarquti Directors and the 'Community Energy Champion' (Tarquti's local representative) presented the wind power project to the Mayor, members of the Municipal Council (NV), and members of the Board of the Quaqtq Tuvaaluk Landholding Corporation. During the meeting, the project site was visited by representatives of local organizations. It was unanimously agreed that wind power was the ideal technology and that they were enthusiastic and excited to see the project come to fruition (See Appendix I). A memorandum of understanding (MoU) will be signed with the community in Fall 2023 to formalize a partnership between the Tuvaaluk Land Corporation, Quaqtq Cooperative and Tarquti. The aim of this MoU is to confirm the community's desire to install a wind turbine on its territory and to continue the development of this project in partnership with Tarquti.

4.2 Information and consultation activities planned during the environmental and social impact assessment procedure

If applicable, indicate the terms and conditions for public information and consultation activities during the environmental and social impact assessment procedure, including those planned for aboriginal communities and users of the territory impacted by the project.

The plan is to continue public consultations with the Landholding Corporation and to organize a general public consultation in the fall of 2023 to inform the population more fully about the project.

During the next phase of social acceptability activities, targeted public consultations will be held, during which Tarquti hopes to create a sense of ownership of the project within the community. Tarquti wants to ensure hunters, berry pickers, and all land users share their concerns, interests, and thoughts about installing a wind turbine on the proposed site.

An information and consultation campaign is also being prepared to communicate with the population via the local radio station and enable Tarquti to gather their opinions.

Job Creation:

Tarquti has hired a Community Energy Champion to lead the project locally and be the designated spokesperson within the community.

During the engineering, exploratory studies, and permitting phases, the project is estimated to create 20 jobs in southern Quebec.

During the planned two years of construction and commissioning, it is estimated that this project phase will create 50 jobs in Nunavik.

Finally, the project is planned to create 2 full-time jobs for Inuit from Quaqtq. These people will receive technical training in wind turbine maintenance from the Cégep de la Gaspésie et des îles so they can ensure optimal wind turbine operation during the operational phase (25 years). This training will be adapted to the Nunavik context in collaboration with the Nergica Research Centre. The plan is to recruit Inuit from Quaqtq and start training as early as 2024.

5. DESCRIPTION OF THE MAIN ISSUES¹ AND IMPACTS OF THE PROJECT ON THE RECEIVING ENVIRONMENT

5.1 Description of the main issues of the project

Briefly describe the main issues regarding the development, construction, and operation phases and, when applicable, closure and restoration phases of the project.

The impacts of climate change will be considered during project design and construction. The turbine foundation will be designed to prevent it from tipping over in the event of permafrost melting. Indicators of these changes will be monitored throughout the project's life by precise measurement of meteorological conditions via the turbine's instrumentation.

The project's social acceptability and community involvement are critical to its success. As such, partnerships with community organizations and the local community are an integral part of Tarquti's business plan, the project development, operations, and eventual project decommissioning.

5.2 Description of the main anticipated impacts of the project on the receiving environment

For the development, construction, and operation phases and, when appropriate, closure and restoration phases of the project, briefly describe what are the anticipated impacts of the project on the receiving environment (physical, biological, and human). Briefly outline the planned mitigation or remediation measures, if applicable.

Construction Phase

The project's impact on the receiving environment is mainly felt during construction. These impacts and the mitigation measures planned are listed below.

- Temporary increase in road traffic (10 trucks for 100 days in 2025 and 2026).
 - Mitigation measures: installation of appropriate signage and use of flagpeople to secure access to the work site.
- Dust dispersal (100 days of work in 2025 and 2026).
 - Mitigation measure: if necessary, roads will be watered with fresh water (sourced from the Quaqtac water pumping station) regularly to limit the lifting of fine particles.
- Modification of the rocky ground surface at the turbine site (approx. 10,000 m²).
 - Mitigation measure: A vegetation inventory and wetland and water characterization will be carried out before turbine installation to ensure the absence of status plants, wetlands, and water.

Operating Phase

Changes to the landscape and noise climate are considered minimal, if not non-existent, from the community's perspective. PESCA Environnement has conducted studies on wind turbine shading and noise impact. Copies of these studies are available in Appendix IV and V.

Access to hunting and fishing grounds will be maintained.

Tarquti has initiated aeronautical and flight path studies with government authorities (Nav Canada and Transport Canada) and consultations with the Quaqtac aerodrome manager, the Kativik Regional Government, and the regional air carrier Air Inuit. The relevant authorities and operators have all confirmed that the wind turbine, in its planned location, complies with current aeronautical regulations, which is essential to the community.

The use of the site by birds and bats will be documented. During inventories, particular attention will be paid to birds of prey and special-status species. Tarquti also received permission from the manufacturer to paint the lower 30 meters of the tower to mitigate impacts on ptarmigan. This colour contrast could reduce the risk of collision with birds.

For a "grey zone" project, provide sufficient information to assess its environmental and social impacts to determine whether it should be subjected to the environmental and social impact assessment and review procedure. Provide mitigation or remediation measures, if applicable.

¹ Issue: A major concern for the government, the scientific community, or the population, including the impacted indigenous communities, and whose analysis could influence the recommendations or decisions of the northern committees regarding the authorization or refusal of a project.

6. GREENHOUSE GAS EMISSION

6.1 Greenhouse gas emission

Indicate if the project is likely to lead to the emission of greenhouse gases and, if so, which ones. Briefly describe the main sources of projected emissions at the various phases of the project.

The development and construction of the wind farm project is likely to result in greenhouse gas (GHG) emissions. The primary expected sources of GHG emissions are as follows.

- Site preparation: 4t CO₂eq
- Manufacture of equipment (wind turbine, transformers, power line): 64t CO₂eq
- Installation: 0.33t CO₂eq
- Transport of equipment to site: 9t CO₂eq

This represents less than 80t CO₂eq for developing a wind turbine project and equipment. This value is negligible when compared to the reduction in emissions for the overall project, especially over the 25-year life of the project.

In the operation phase, the estimated GHG emissions are as follows:

The project's renewable energy integration targets (i.e. 72%) are expected to be progressively achieved and even surpassed over the project's life. This integration rate will be achieved by converting diesel heating to electric heating. Achieving this target will be possible if Hydro-Québec agrees to shut down the generators when wind conditions are favorable and taking into consideration that the community's electricity demand will continue to increase. This high renewable energy penetration scenario is equivalent to 0.882 million liters of diesel saved annually. Since the emission factor is 2.789973 kg/L of CO₂eq, the reduction in GHG emissions associated with this 72% renewable energy integration target is $0.882 \times 2.789973 = 2,460.8$ tons of CO₂eq per year.

The baseline scenario considered in the first years of operation is to operate at all times with a minimum of one generator on-line. This process mode represents a diesel reduction of 0.573 million liters per year. The decrease in GHG emissions associated with this baseline scenario is $0.573 \times 2.789973 = 1,599.6$ tons of CO₂eq per year.

It is therefore considered to have a reduction of 0.573 million liters of diesel at the start of project operations, but will gradually lead to 0.882 million liters of diesel saved annually. Tarquti hopes to reach 0.882 million liters of diesel saved annually by the fifth year of operation.

It is also estimated that a 10% reduction in diesel used for transporting fuel by ship will take place from the first years of operation of the wind turbine. This value of 10% being the minimum reduction anticipated.


7. OTHER RELEVANT INFORMATION

7.1 Other relevant information

Enter any other information deemed necessary for a better understanding of the project.

See photos of a similar project at the Raglan Mine in Nunavik (Appendix II).

8. DECLARATION AND SIGNATURE

8.1 Declaration and signature
<p><i>I certify that :</i></p> <p><i>1° the documents and information provided in this preliminary information form are accurate to the best of my knowledge.</i></p> <p><i>Any misrepresentation may result in sanctions under the EQA. All information provided will form an integral part of the application and will be published on the website of the Evaluating Committee (COMEV) or the Kativik Environmental Quality Commission (KEQC) and the Environmental assessment register.</i></p>
First and last name
Justin Bulota,P.Eng.
Signature

Date
2023-10-18

Appendix I

Resolution of the municipal council, band council, northern village, or responsible body

If applicable, insert below the resolution of the municipal council, band council, northern village or responsible body duly certified authorizing the signatory(s) of the application to present it.



October 3, 2023

SUBJECT: COLLABORATION BETWEEN TUVAAALUK LHC AND TARQUTI AND SUPPORT FOR A WIND ENERGY PROJECT IN QUAQTAQ

To whom it concerns,

Since 2017, Tuvaaluk Landholding Corporation of Quaqtaq (Tuvaaluk) and Tarquti Energy (Tarquti) have been working in close collaboration and partnership in developing a community-scale renewable energy project that will reduce the community’s greenhouse’s gas emissions and dependency on fossil fuel. The major initiative contemplated, after reviewing available options, is to develop a 3MW wind turbine project south of Quaqtaq, at approximately 4 kilometers from the village down a community land access road

Following a successful 24-month data collection campaign through a wind measurement tower, the community of Quaqtaq, with the leadership of Tuvaaluk, is enthusiast to undertake the next steps of a conceptual engineering study. Given the strong interest of the community leaders, Tarquti was mandated to initiate a pre-feasibility engineering study as well as an environmental and social assessments including geo-technical and geomatic studies.

Furthermore, Tuvaaluk holds a certificate to own and operate a quarry just outside of Quaqtaq and is working in partnership with Kautaq Construction in operating a rock crushing equipment since summer 2021 to support the civil construction of various community projects. Since this equipment is already mobilized and functional and is expected to leave the community in spring 2024, Tuvaaluk felt it was necessary to take advantage of the crusher in Quaqtaq to produce necessary aggregate for the future road and wind turbine site. In this context, Tuvaaluk and Tarquti’s experts have determined the necessary quantity required for this project and we are working at producing, this fall, the required material. The aggregate produced will be stock-piled at Tuvaaluk’s quarry located at the beginning of the future wind turbine road (see next page) for the need of this project. The material will be used once the project receive all necessary authorization and necessary formal structure and agreements are in place.

In short, and on behalf of Tuvaaluk’s board of directors, we are proud to be partnering and collaborating with Tarquti on this important community project that receives strong support from local entities in the process of decarbonizing the community. We are looking forward to seeing fast progress in the development of this project that makes the most of our natural and renewable resources such as wind and will benefit greatly the community and future generations.

Respectfully,

Robert Deer
CEO
Tuvaaluk Landholding Corporation
bobby.deer@tuvaaluk.com

Appendix II
Project characteristics

If relevant, insert below documents to better understand the characteristics of the project (diagram, sketch, cross-section, etc.).

Wind turbine installed under similar conditions at the Raglan Mine in Nunavik



Appendix III Location plan

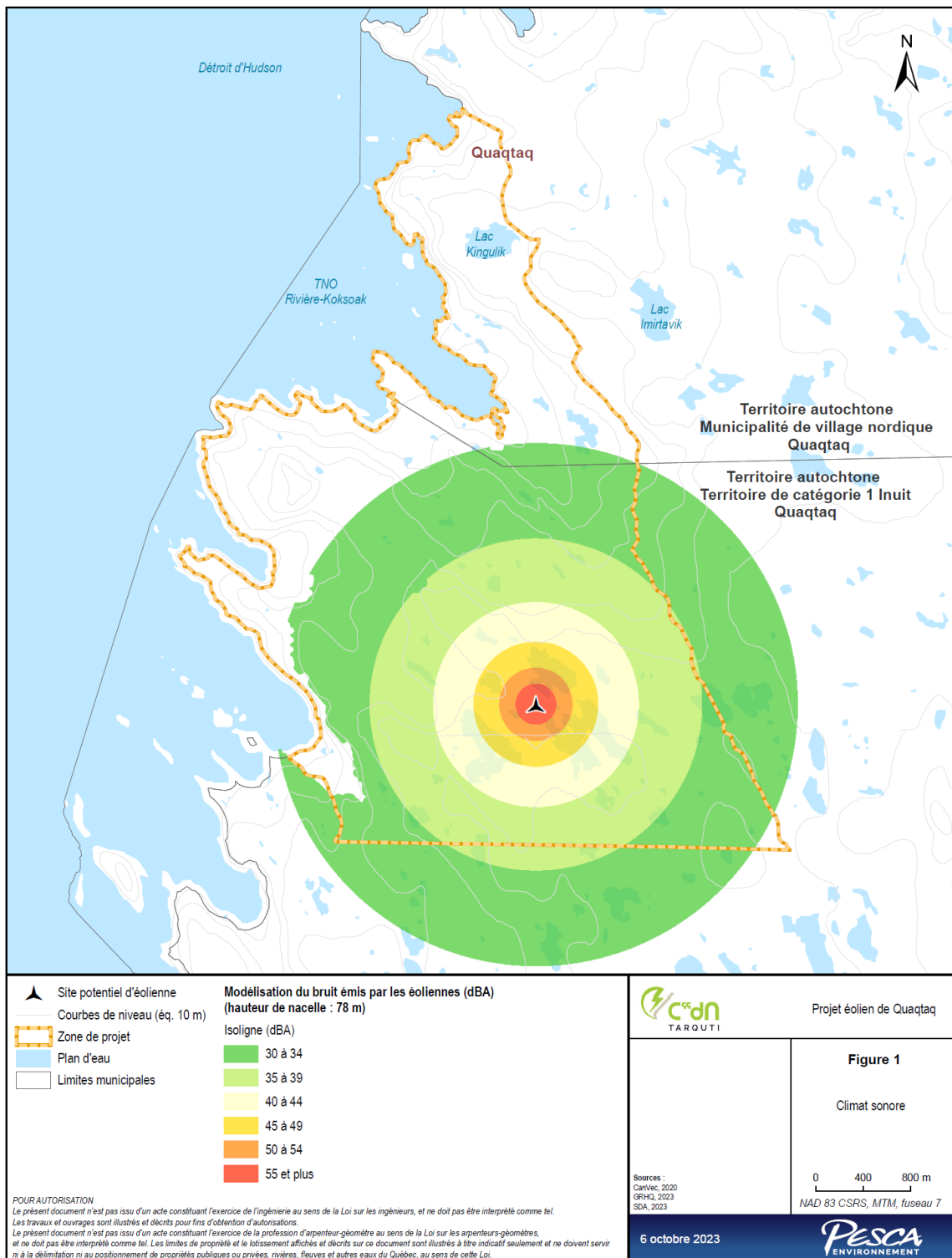
Insert a topographic or cadastral map showing the location of the project and, if applicable, a plan for the location of works or activities on an appropriate scale indicating in particular the infrastructures in place in relation to the work site.



The location of the wind turbine is represented by the number 1 at the bottom of the image. The existing road is shown in orange, new sections of road to be built to facilitate the transport of turbine components in red, and areas where drainage culverts will be installed in green.

Appendix IV

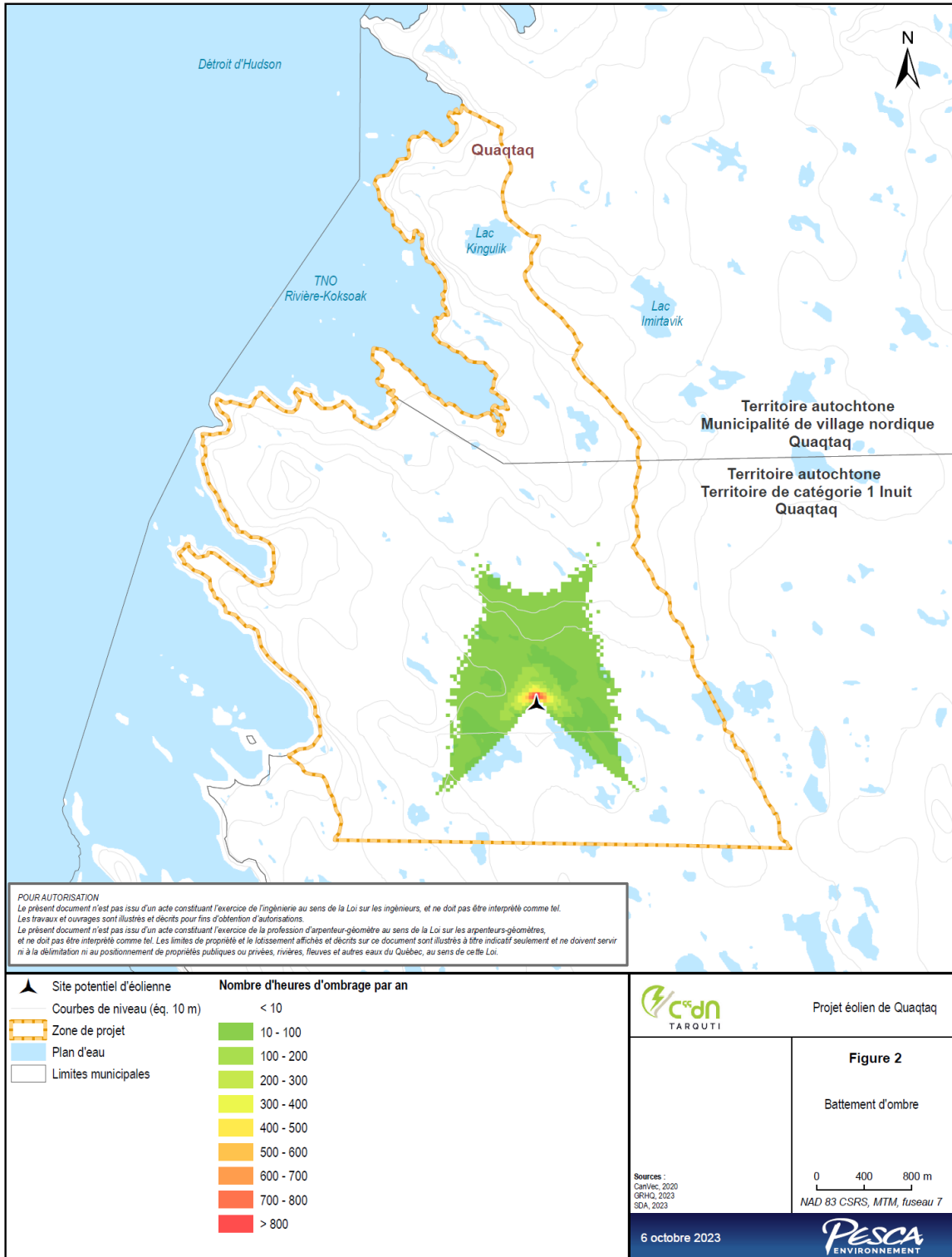
Sound climate Quaqtaq wind power project



N/Réf.: TAROTQ_3239_f1_clima_sonore_20231006

Appendix V

Shading simulation for the Quaqtaq wind power project



N/Réf.: TARQTO_3239_P2_ombrage_20231006