Kuujjuaraapik Whapmagoostui Renewable Energy Corporation
9415-1610 Québec Inc.

Whapmagoostui Kuujjuaraapik Hybrid Power Plant Project

Notice of intent
Preliminary information

Submitted to the ministère de l'Environnement et de la Lutte contre les changements climatiques

July 8, 2020

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1 Proponent

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Person in charge:	Mr. Matthew Mukash, President	
Mandatory : Quebec enterprise registration number (NEQ) at the Registraire des entreprises du Québec		1175301184

2 Consultant

Name :	PESCA Environment
Address :	895, boulevard Perron Carleton-sur-Mer (Québec) G0C 1J0
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Person in charge:	Marjolaine Castonguay Environmental and Social Impact Statement Coordinator

The Resolution of the Board of Directors related to theproject is in Appendix A. The corporate structure chart of Kuujjuaraapik Whapmagoostui Renewable Energy Corporation (KWREC) is in Appendix B.

3 Project title

Whapmagoostui Kuujjuaraapik Hybrid Power Plant Project (WKHPPP).

4 Objectives and justification of the project

The electricity supply of Whapmagoostui / Kuujjuaraapik is currently assured by a diesel power plant owned and operated by Hydro-Quebec Distribution (HQD). The WKHPPP was created based on the need for an alternative to this diesel power plant. The primary objective of the project is to produce electricity for the Whapmagoostui and Kuujjuaraapik communities by combining local sources of sustainable energy.

The WKHPPP consists of 3 wind turbines with a total installed capacity of 2.4 MW.

5 Subjection to the assessment and review procedure

The Environment Quality Act and the JBNQA specify which development projects are automatically subject to the environmental and social impacts assessment and review procedure applicable to the James Bay and Northern Québec Region. They also specify which projects are automatically exempt from this procedure. Wind Energy Projects are not included in any of these lists. Consequently, the WKHPPP is considered a “grey-zone” project. The Evaluating Committee (COMEV) has to determine if an impact assessment is required or not.

We know that under the Environmental Quality Act and its regulations, certain wind projects may be subject to the environmental assessment process. The Regulation respecting the environmental impact assessment and review of certain projects (Q-2, r. 23.1) indicates that Wind Energy Projects with a capacity of 10 MW or greater are subject to the environmental impact assessment and review procedure in Southern Québec. Such a trigger does not exist in the James Bay and Northern Quebec Region where a specific regulation is applicable.

To our knowledge, the WKHPPP is the second Wind Energy Project proposed in the James Bay and Northern Quebec Region. The first one was developed by Xstrata Nickel Raglan Mine at Katinniq. That project included 6 wind turbines (3 MW each) for a total capacity of 18 MW and an impact assessment was required and reviewed by the Kativik Environmental Quality Commission (KEQC). The WKHPPP is a 2.4 MW Wind Energy Project.

6 Project location

The Whapmagoostui / Kuujjuaraapik territory is located at the mouth of the Great Whale River on the east coast of Hudson Bay. The project location is presented in appendix C.

The project is primarily located in Eeyou Istchee territory. The project area was delineated to include all the project related infrastructures and variants. This area is 442.8 ha, including 441.6 ha on category IA-Cree lands of Whapmagoostui (99.7 %) and 1.2 ha on category I-Inuit lands of Kuujjuaraapik (0.3 %). All WKHPPP infrastructures are located on category IA-Cree lands except a 440 m interconnexion line (4 kV) within the village on category I-Inuit lands (see Appendix C).

7 Site description

In this section, the site is described on a larger scale than the project area to take into account the broader context of the land (referred herein as “Description Area”).

The relief of the description area generally consists of rocky outcrops not exceeding 230 m and intersected by numerous valleys. Sand dunes are also present along the bay. The hydrographic network consists of lakes, rivers and streams. Isolated wetlands are also present. The vegetation is characteristic of the taiga and tundra.

The description area belongs in the boreal vegetation zone, the sub-zone of the taiga and the bioclimatic domain of the spruce-lichen. The forest landscape of the spruce-lichen stands out for its lichen mat dotted with black spruce. Balsam fir and jack pine reach the northern limit of their range in this bioclimatic domain[1].

Surveys were conducted by the proponent in 2012 and 2013:

- 48 species of plants and no special status species were confirmed in the description area.
- 64 bird species were confirmed in the description area, including 2 special-status species (golden eagle and peregrine falcon) during migration.
- The presence of few hoary bats was confirmed within the village limits.
- Thirty-four species of land mammals are potentially present in and around the description area. Five large mammal species may be observed in the description area, the woodland caribou (forest and tundra-migratory ecotype), moose, black bear, polar bear and the muskox.

The following species are among the wildlife species of concern potentially present in the area: least weasel, wolverine (eastern population), woodland caribou (forest ecotype), hoary bat, polar bear, golden eagle, peregrine falcon and fourhorn.

There are 1 042 inhabitants in the Cree community of Whapmagoostui and 722 inhabitants in the northern village of Kuujjuaraapik[2]. The economy is primarily driven by services delivered in the public and para-public sectors (health, education, administration), as well as in the private retail and services, wildlife resource exploitation and construction sectors. The tourism industry also plays an important role in the economy.

The territory has undergone human occupation during various periods. A detailed archaeological heritage assessment was performed by Hydro-Québec in the context of the Great Whale River hydro-electric project. According to current knowledge, the project area contains 9 confirmed archaeological sites from the Prehistoric time and 4 sites that shows traces of recent (historic) occupation.

[1] MFFP (2003). Gouvernement du Québec, ministère des Forêts, de la Faune et des Parcs. Zones de végétation et domaines bioclimatiques du Québec. Repéré à http://www.mffp.gouv.qc.ca/publications/forets/connaissances/zone-vegetation-2003.pdf en juin 2020.

[2] MAMH ([s. d.]). Gouvernement du Québec, ministère des Affaires municipales et de l'Habitation. Répertoire des municipalités. Repéré à https://www.mamh.gouv.qc.ca/repertoire-des-municipalites en juillet 2020.

8 Project description

The electricity supply of Whapmagoostui / Kuujjuaraapik is currently assured by a diesel power plant owned and operated by HQD. The WKHPPP is developed based on the need for a renewable energy alternative to this diesel power plant. The primary objective of the project is to produce electricity for the Whapmagoostui and Kuujjuaraapik communities by combining local sources of sustainable energy. The WKHPPP will focus on the use of 2.4 MW Wind Turbines Generators (WTG) to produce renewable energy. The average yearly base production is estimated to about 6.6 GWh.

The wind energy plant will be owned and operated by a joint Cree and Inuit corporation, Kuujjuaraapik Whapmagoostui Renewable Energy Corporation (KWREC) that will sell the electricity production to the utility. The corporate structure chart is in Appendix B. A 25-year Power Purchase Agreement will be signed between HQD and KWREC. The Investment CAPEX is estimated to 32 M$.

8.1 Project infrastructures

- Three turbines site with Enercon E-53 EP1 800 kW WTGs or equivalent (see T1, T2, and T3 in Appendix C);
- An interconnection to the HQD power plant (located within the limits of the Northern Village of Kuujjuaraapik) as presented in the WKHPPP schematic of interconnection figure 1;

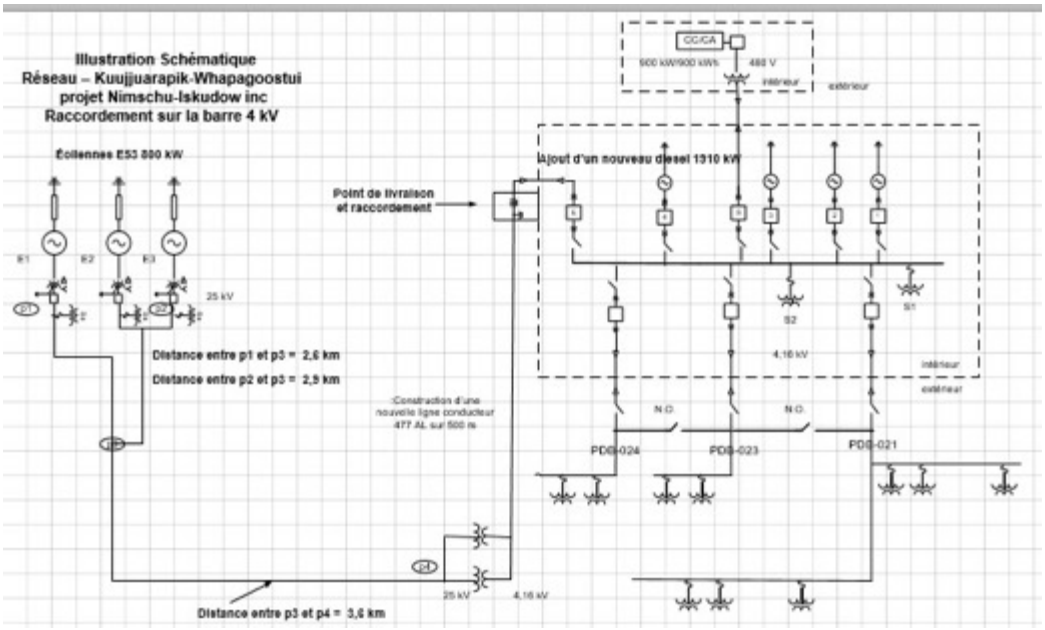


Figure 1: Schematic of interconnection with existing HQD Power Plant

- 500 meters of 4 kV interconnection line between the HQD substation and the control & maintenance center (see figure 2);
- Control & maintenance center with a substation with 2 step-down transformers 25 kV – 4 kV (see figure 2);

- Around 9.1 km of 25 kV interconnection line between the WTGs (see figures 3 & 4 and Appendix C);
- Around 3.4 km of new access roads to each of the WTG sites (from the existing CREE quarry to T1, T2 and T3, see Appendix C).

Figure 2: 4 kV Interconnection and a Control & Maintenance center with substation

Figure 3: 25 kV interconnection (T1)

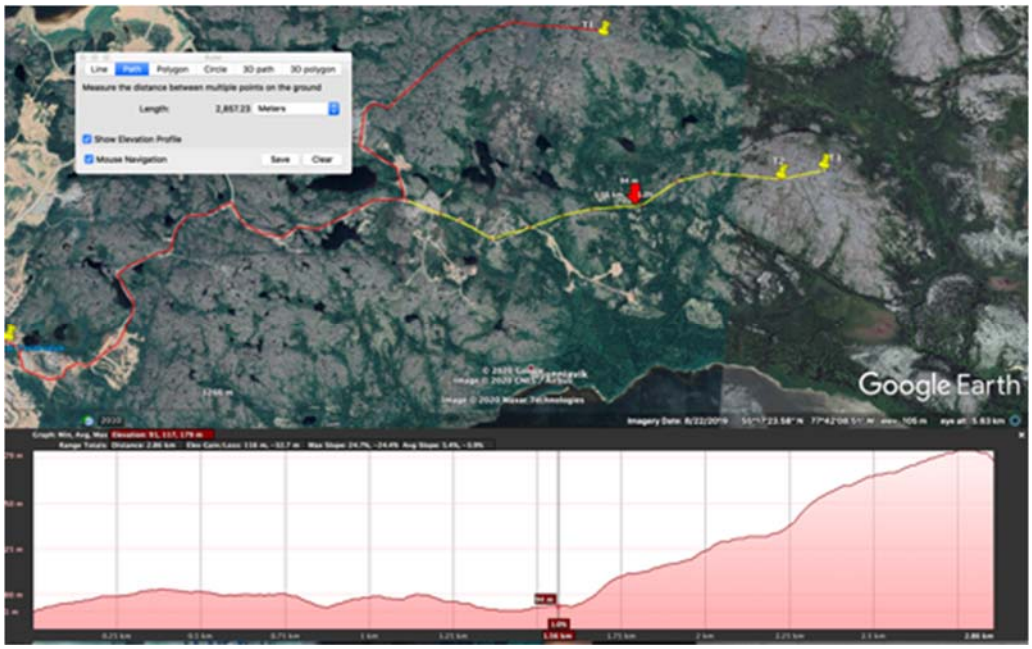


Figure 4: 25 kV interconnection (T2, T3)

8.2 Project phases

The hybrid power plant project is divided into three phases: development, construction, operation.

8.2.1 Development phase

The main activities of the development phase will include:

- land securing;
- installation of wind measurement masts;
- land surveying for technical descriptions and for permits and other authorizations;
- preparation of an environmental and social impact assessment, if required by the Evaluating Committee (COMEV);
- consultation of the public and the local communities;
- preparation of the authorization and permits requests.

8.2.2 Construction phase

The main activities of the construction phase will include:

- mobilisation of work site;
- transport and circulation;
- tree clearing and topsoil stripping for preparation of the work areas (access roads and equipment implantation areas);

- construction and improvement of access roads;
- installation of project equipment;
- installation of the plant's collector system (electrical network connecting each wind turbine to the substation) and construction of the substation;
- restoration of work areas;
- training of local personnel to operate the power plant.

Wind turbines will be installed on concrete pads of different types depending on soil's nature. Blasting might be required. Wind turbine components (tower, rotor, nacelle, blades) will be installed using a crane.

The proponent will conduct environmental monitoring during construction activities to ensure compliance with applicable regulations and measures identified in the environmental process, in the decree and in other permits and authorizations issued.

8.2.3 Operation phase

The activities of the operation phase will ensure good working order of the WTGs thanks to a centralized system and proper and regular servicing of the equipment and infrastructures.

The activities of the operation phase will include:

- equipment operation;
- transport and circulation of the employees for servicing and maintenance purposes;
- equipment and infrastructures servicing.

During the operation phase, follow-up activities will be performed on various environmental components, based on a program drawn up in compliance with the requirements of the authorities. Components subjected to those follow-ups will be determined based on the nature of the anticipated impacts.

9 Project schedule

The WKPPP construction phase is planned for 2021 and the start the operation is targeted for the end of 2022.

10 Subsequent phases and related projects

No subsequent phases are known.

11 Procedures for public consultation

The project was approved by the Chief and the Council & General Assembly of the Whapmagoostui Cree community in August 2011. After holding consultations with leaders and stakeholders, the proponent will hold public consultations in 2020 with the concerned communities, both at Whapmagoostui and Kuujjuaraapik. Thereafter, communications will continue throughout the stages of development and

implementation of the project to keep stakeholders, land users and members of both communities informed of the progress of the project.

12 Main issues related to the project

The final layout of the WKHPPP will be designed by taking into account numerous environmental (e.g., land cover and habitat types, setbacks for sensitive species, wetlands and waterbodies), human (e.g., distance from residences, results from noise modelling) and technical (e.g., spacing between turbines, infrastructure setbacks) constraints as well as issues and concerns raised by stakeholders.

The main issues are related to wildlife, hunting/fishing/trapping activities, water quality, employment, waste management, noise, landscape.

13 Main anticipated impacts

The main components that may be affected during the construction phase are forest stands, wildlife habitats and soil due to tree clearing and access road construction. The recommended mitigation measures will be implemented to reduce the impacts and to manage the waste materials appropriately. Reducing the speed of vehicles travelling on the unpaved portion near dwellings and in the inhabited zones along the portion of the access road will further limit the impacts. Dust control measures such as water application on unpaved roads, could be used to reduce the disturbance. The project design maximises the use of existing roads to reduce the footprint on undisturbed areas.

The significance of the impact on soils, surface water and groundwater and on drainage would be slight during the construction phase because the construction activities, notably the construction of watercourse crossings, will comply with the standards set out in the applicable regulation and guidelines. Wetlands will be avoided as much as possible, mitigation will be implemented and residual impacts will be offset.

During the operation phase, birds and bats are at risk of collision with turbines. Studies and postconstruction monitoring in operating wind farms in boreal habitats in Quebec generally show low mortality caused by wind turbines. In addition, the survey done by the proponent suggests that there are no migration corridors at the site and bat activity is low and concentrated within the village limits. The anticipated risk for birds and bats is deemed low.

Direct and indirect economic benefits are expected for the region during all phases of the project. The project will have positive impacts in terms of job creation, economic spin-offs, development of specialised expertise in the region and workforce training. Local suppliers for concrete and construction equipment will be favoured. The wind energy plant will be owned and operated by a joint Cree and Inuit corporation. Revenues generated by the project for both communities will allow the communities to invest and maintained public infrastructures.

Wind turbine noise during the operation phase will mainly be made by the moving blades and the generator. The turbines are more than 4 km from the village limits which is a lot superior to the standard clearance of 500 m, that is applied in most wind projects. This distance will also reduce the impact on the landscape.

The implementation plan for facilities and access roads will be designed to ensure compliance with all laws and regulations applicable to the development of such a project.

14 Greenhouse gas emissions

Greenhouse gas emissions (GHG) are expected mostly during construction due to the use of mobile equipment (trucks, crane, bulldozers, graders). The project will result in GHG emission reductions over the 25 years of operation as electricity produced by wind will reduced the diesel consumption at the power plant.

I certify that, to the best of my knowledge and belief, the information provided in this notice of intent is true and correct, as of July 8, 2020.

Matthew Mukash
President
KWREC

Appendix A Resolution of the Board of Directors

CERTIFIED TRUE COPY OF A RESOLUTION OF

THE BOARD OF DIRECTORS OF 9415-1610 QUEBEC INC

KUUJJUARAAPIK-WHAPMAGOOSTUI RENEWABLE ENERGY CORPORATION (KWREC)

On a motion duly made by Mr. John Shem and seconded by Mr. Charlie John Calvin, it was resolved that the Board of Directors adopts Resolution 200618-6:

WHEREAS the Board of Directors has retained the services of Pesca Environment for the filing of the Project Notice for the Whapmagoostui-Kuujjuarapik Wind Hybrid Power Plant Project before the respective Governmental authorities;

IT IS RESOLVED:

THAT the Board of Directors hereby approves the filing of the Project Notice by Pesca Environment on behalf of the Corporation;

THAT the President is hereby authorized to execute the Project Notice on behalf of the Corporation and is hereby authorized to do all things deemed necessary to give effect to the present Resolution.

The undersigned, Secretary of Kuujjuaraapik-Whapmagoostui Renewable Energy Corporation (9415-1610 Quebec Inc) (the "Corporation"), hereby certifies that the foregoing Resolution is a certified true copy of Resolution 200618-6 of the Board of Directors of the Corporation as of June 18, 2020 which Resolution is still in full force and effect.

IN WITNESS WHEREOF, I have signed this June 26, 2020.

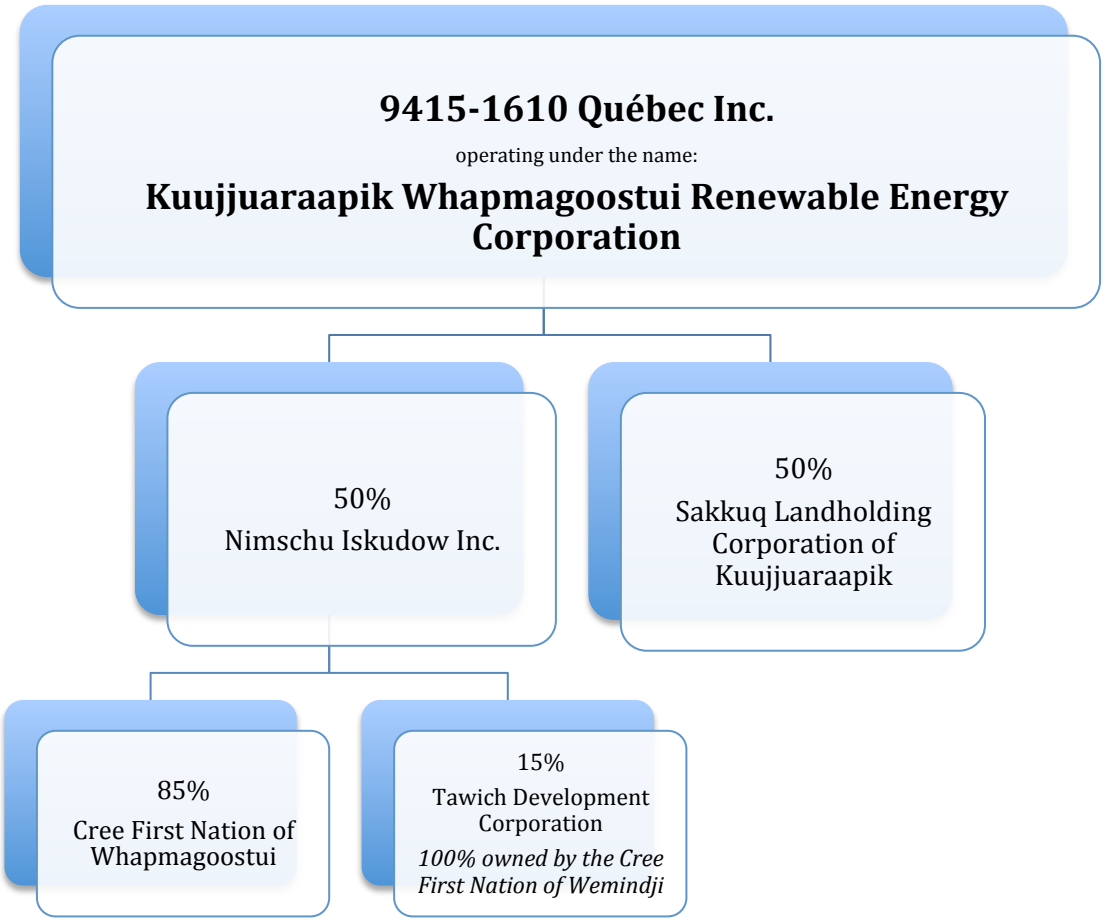
Yves-André Bureau

Corporate Secretary

Appendix B KWREC Structure Chart

Appendix B

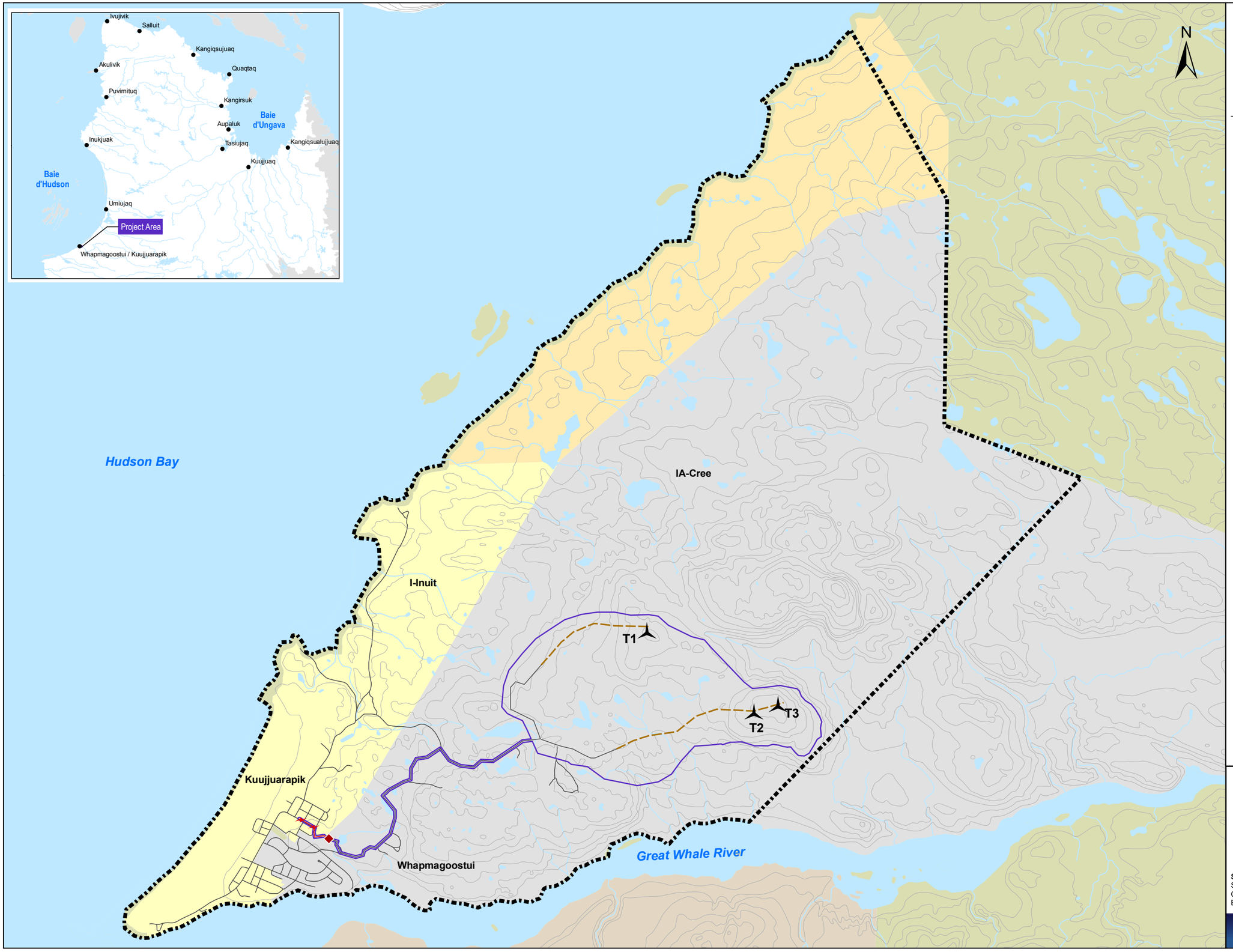
Corporate Structure Chart



Appendix C Project location

Kuujjuaraapik Whapmagoostui Renewable Energy Corporation

Whapmagoostui Kuujjuaraapik Hybrid Power Plant Project



- Project Area
- Description Area
- Potential Wind Turbine Location
- Control & Maintenance Center
- Electric Line 4 kV

Roads
- To build
- Existing

Category Land
- Inuit Village
- Inuit Territory
- Cree Village
- Cree Territory
- Unorganized Territory
- Contour Line
- Stream
- Waterbody

Source:
SDA, 2020
Canvec
BGAQ, 8 M

Project Location

0 400 800 m

Nad 83, UTM, Zone 18

8 juillet 2020

PESCA ENVIRONMENT

N/Réf.: YABWHA_1135_m1_ProjectNotice_200708