Crown-Indigenous Relations and Northern Affairs Canada
Relations Couronne-Autochtones et Affaires du Nord Canada

Water Resources Division
Resource Management Directorate
Nunavut Regional Office
P.O. Box 100
Iqaluit, NU, X0A 0H0

Your file - Votre référence
8BW-ANU----
Our file - Notre référence
GC Docs # : 113503500

May 29, 2023

Robert Hunter
Manager of Licensing
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU, X0B 1J0
E-mail: Licencing@nwb-oen.ca

Re: Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) Review of New Type B, Water Licence Application No. 8BW-ANU---- for the Anuriqjuak Nukkiksautiit Project, submitted on behalf of Nunavut Nukkiksautiit Corporation

Dear Mr. Hunter,

Thank you for your May 8, 2023 invitation to review the new water licence application for Nunavut Nukkiksautiit Corporation, Type B Water Licence no. 8BW-ANU----.

CIRNAC examined the application pursuant to its mandated responsibilities under the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* and the *Department of Crown-Indigenous Relations and Northern Affairs Act*. Please find CIRNAC's comments and recommendations in the attached Technical Review Memorandum.

If there are any questions or concerns, please contact me at (867) 975-4282 or Christine.Wilson3@rcaanc-cirnac.gc.ca

Regards,

Christine Wilson,
Industrial Coordinator

Canada

Technical Review Memorandum

Date: May 29, 2023

To: Richard Dwyer – Manager of Licensing, Nunavut Water Board

From: Christine Wilson – Industrial Coordinator, CIRNAC

Subject: **Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) Review of New Type B, Water Licence Application No. 8BW-ANU---- for the Anuriqjuak Nukkiksautiit Project, submitted on behalf of Nunavut Nukkiksautiit Corporation**

A. BACKGROUND

The proposed Anuriqjuak Nukkiksautiit Project is led by Nunavut Nukkiksautiit Corporation (NNC), with the support of the Municipality of Sanikiluaq. The Project is proposing to install wind turbines, transmission line and a battery energy storage system to be integrated with the community's electrical grid, reducing the Municipalities' reliance on diesel fuel for electricity. The project will require a water licence for 4.5km of access road and three water crossings that will be constructed to allow access to the location of the wind turbines.

Growler Energy submitted, on behalf of NNC, the following documents for review:

- 1. Anuriqjuak-General Water Licence Application-signed
- 2. Anuriqjuak M1-WaterWorks-SIG 2023-04-20
- 3. English - Project Executive Summary 22XN052
- 4. Inuktitut -Project Executive Summary 22XN052
- 10. 1 in 50,000 Scale Project Map
- 11.1 Anuriqjuak Nukkiksautiit Project Drawings
- 11.2 Anuriqjuak Nukkiksautiit Project Drawings
- 11.3 Anuriqjuak Nukkiksautiit Project Drawings
- 11.4 Anuriqjuak Nukkiksautiit Project Drawings
- 12. Catchment Map Drawing
- 13. NPC Determination Letter #149782
- 14. NIRB Screening Decision Report 22XN052
- 15. NNC Anuriqjuak Nukkiksautiit Project - Project Proposal 22XN052
- 16.1 Biophysical Impact Assessment High Displacement 22XN052
- 16.2 Biophysical Impact Assessment High Displacement 22XN052
- 17.1 Biophysical Impact Assessment High Displacement_Aquatics Addendum
- 17.2 Biophysical Impact Assessment High Displacement_Aquatics Addendum
- 17.3 Biophysical Impact Assessment High Displacement_Aquatics Addendum
- 18.1 Biophysical Impact Assessment High Displacement_Avian Addendum

- 18.2 Biophysical Impact Assessment High Displacement_Avian Addendum
- 19.1 NNC Consultation Record
- 19.2 NNC Consultation Record
- 19.3 NNC Consultation Record
- 19.4 NNC Consultation Record
- 19.5 NNC Consultation Record
- 19.6 NNC Consultation Record
- 19.7 NNC Consultation Record
- 20. NNC Incorporation Document
- 21. Anuriqjuak Project - NNC Letter of Authorization
- 22. Anuriqjuak NNC Letter of Financial Responsibility for Water Crossing
- Anuriqjuak Nukkiksautiit Project Spill Plan V1.0
- Applicant Response to NWB

CIRNAC provided the following comments and recommendations pertaining to the application. A summary of the subjects of recommendations can be found in Table 1. Documents reviewed as part of the submissions can be found in Table 2 of Section B. Detailed technical review comments and requests for clarification can be found in Section C.

Table 1: Summary of Recommendations

Recommendation Number	Subject
R-01	Spill Prevention and Response Plan
R-02	Drinking Water Source and Spills
R-03	Term of Licence
R-04	Surface Drainage
R-05	Decommissioning Phase

B. DOCUMENTS REVIEWED AND REFERENCED

The following table (Table 2) provides a list of the documents reviewed under the submission and referenced during the review.

Document Title	Author, File No., Rev., Date
230420 8BW-ANU---- 1. Anuriqjuak-General Water Licence Application-signed-ILAE	Growler Energy, March 20, 2023
230420 8BW-ANU---- 10. 1 in 50,000 Scale Project Map-ILAE	Department of Mines and Technical Surveys, 1961
230420 8BW-ANU---- 11.1 Anuriqjuak Nukkiksautiit Project Drawings-ILAE	Nunavut Nukkiksautiit Corporation, March 20, 2023
230420 8BW-ANU---- 11.2 Anuriqjuak Nukkiksautiit Project Drawings-ILAE	Nunavut Nukkiksautiit Corporation, March 20, 2023
230420 8BW-ANU---- 11.3 Anuriqjuak Nukkiksautiit Project Drawings-ILAE	Nunavut Nukkiksautiit Corporation, March 20, 2023
230420 8BW-ANU---- 11.4 Anuriqjuak Nukkiksautiit Project Drawings-ILAE	Nunavut Nukkiksautiit Corporation, March 20, 2023
230420 8BW-ANU---- 12. Catchment Map Drawing-ILAE	Nunavut Nukkiksautiit Corporation, April 11, 2023
230420 8BW-ANU---- 13. NPC Determination Letter #149782-ILAE	NPC, July, 21, 2022
230420 8BW-ANU---- 14. NIRB Screening Decision Report 22XN052-ILAE	NIRB, November 4, 2022
230420 8BW-ANU---- 15. NNC Anuriqjuak Nukkiksautiit Project - Project Proposal 22XN052-ILAE	Nunavut Nukkiksautiit Corporation June 30,2022
230420 8BW-ANU---- 16.1 Biophysical Impact Assessment High Displacement 22XN052-ILAE	Wood, May 25, 2022
230420 8BW-ANU---- 16.2 Biophysical Impact Assessment High Displacement 22XN052-ILAE	Wood, May 25, 2022
230420 8BW-ANU---- 17.1 Biophysical Impact Assessment High Displacement_Aquatics Addendum-ILAE	Wood, May 25, 2022
230420 8BW-ANU---- 17.2 Biophysical Impact Assessment High Displacement_Aquatics Addendum-ILAE	Wood, May 25, 2022
230420 8BW-ANU---- 17.3 Biophysical Impact Assessment High Displacement_Aquatics Addendum-ILAE	Wood, May 25, 2022
230420 8BW-ANU---- 18.1 Biophysical Impact Assessment High Displacement_Avian Addendum-ILAE	Wood, July 15, 2022
230420 8BW-ANU---- 18.2 Biophysical Impact Assessment High Displacement_Avian Addendum-ILAE	Wood, July 15, 2022
230420 8BW-ANU---- 19.1 NNC Consultation Record-ILAE	Nunavut Nukkiksautiit Corporation June 30,2022
230420 8BW-ANU---- 19.2 NNC Consultation Record-ILAE	Nunavut Nukkiksautiit Corporation June 30,2022
230420 8BW-ANU---- 19.3 NNC Consultation Record-ILAE	Nunavut Nukkiksautiit Corporation June 30,2022
230420 8BW-ANU---- 19.4 NNC Consultation Record-ILAE	Nunavut Nukkiksautiit Corporation June 30,2022
230420 8BW-ANU---- 19.5 NNC Consultation Record-ILAE	Nunavut Nukkiksautiit Corporation June 30,2022
230420 8BW-ANU---- 19.6 NNC Consultation Record-ILAE	Nunavut Nukkiksautiit Corporation June 30,2022
230420 8BW-ANU---- 19.7 NNC Consultation Record-ILAE	Nunavut Nukkiksautiit Corporation June 30,2022

230420 8BW-ANU---- 2. Anuriqjuak M1-WaterWorks-SIG 2023-04-20-ILAE	NNC, March 20, 2023
230420 8BW-ANU---- 20. NNC Incorporation Document-ILAE	NNC, March 20, 2023
230420 8BW-ANU---- 21. Anuriqjuak Project - NNC Letter of Authorization-ILAE	NCC, December 1, 2022
230420 8BW-ANU---- 22. Anuriqjuak NNC Letter of Financial Responsibility for Water Crossing-ILAE	NCC, April 20, 2023
230420 8BW-ANU---- 3. English - Project Executive Summary 22XN052-ILAE	NCC, N/A
230420 8BW-ANU---- 4. Inuktitut -Project Executive Summary 22XN052-ILAE	NCC, N/A
230428 8BW-ANU---- Anuriqjuak Nukkiksautiit Project Spill Plan V1.0-ILAE	NCC, April 2023
230508 8BW-ANU---- Applicant Response to NWB-ILAE	Growler Energy, May 8, 2023

1. Lead Agency Contact information

Table 1.1, page 2-3, of the Spill Prevention and Response Plan (SPRS) includes the following:

CIRNAC Environment Division Environment Manager PO Box 2200 Iqaluit, NU X0A 0H0 Tel: (867) 975-4549 nunavutenvironment@aandc-aadnc.gc.ca	CIRNAC Water Resources Division Water Resources Manager PO Box 2200 Iqaluit, NU X0A 0H0 Tel: (867) 975-4550 nunavutwaters@aandc-aadnc.gc.ca

Comment: The contact information found in this table should be updated to the following:

CIRNAC Impact Assessment Manager PO Box 2200 Iqaluit, NU X0A 0H0 Tel: (867) 975-4549 Felexce.Ngwa@rcaanc-cirnac.gc.ca	CIRNAC Water Resources Division Manager PO Box 2200 Iqaluit, NU X0A 0H0 Tel: (867) 975-4550 Andrew.Keim@rcaanc-cirnac.gc.ca

In accordance with the Spills Working Group Agreement, Crown-Indigenous Relations and Northern Affairs Canada is the designated lead agency on spills which occur at facilities authorized by federal legislation. This means that if a spill occurs at any facility authorized by the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* (e.g.: a water licence) CIRNAC would be the lead agency to consult.

Recommendation: (R-01) CIRNAC recommends that an addendum be submitted to the SPRP to include the correct contact for spills at facilities authorized by the water licence and include the main point of contact as CIRNAC's Field Operations, On-call Inspector contact telephone number (867) 975-4284 in all sections of this plan.

2. Drinking Water Source and Spills

Section 4.1.6 titled Surface Hydrology and Water Quality of the Biophysical Impact Assessment High Displacement Renewable Energy Project, states "*The Water Supply Facility draws freshwater from Sanikiluaq Lake to the south of the community. The proposed access road is located along a local watershed divide, primarily on exposed bedrock, which drains northeast to Sanikiluaq Lake. The construction of the access road will not require blasting.*"

Comment: The Municipality of Sanikiluaq is located on an island in Hudson Bay. The community, as stated in the municipal water licence, has limited sources for drinking water. Measures should be taken to protect the watershed in an instants of a spill.

Recommendation: (R-02) CIRNAC recommends that the SPRP identifies and includes a plan for protection of waters which feed the Sanikiluaq Lake, from contamination if a spill occurs from this undertaking.

3. Term of Licence

The Applicant has requested a licence term of 25 years and states in the water licence application *"the access road will become part of the municipal road system and not subject to closure or reclamation."*

Comment: CIRNAC supports the requested 25 year water licence term.

Recommendation: (R-03) CIRNAC supports a 25 year term with the consideration that additional monitoring stations, sampling and analyses may be required by an Inspector and or the Board to achieve legislative objectives. CIRNAC recommends, prior to the licence cancellation/expiry, a plan for the administration/maintenance of this road should be submitted to the Board for approval to ensure the undertaking is properly licenced.

4. Surface Drainage

Section 4.1.6 titled Surface Hydrology and Water Quality of the Biophysical Impact Assessment High Displacement Renewable Energy Project states *"The hydrology of Sanikiluaq is highly influenced by seasonal changes in the climate. The high spring freshet flow occurs in late May to June, as the cumulative snow and ice over the winter melts. Flows decrease as the summer progresses into July and August. The hamlet of Sanikiluaq uses trucked drinking water distribution and waste collection services (Hayward, 2020). The Water Supply Facility draws freshwater from Sanikiluaq Lake to the south of the community. The proposed access road is located along a local watershed divide, primarily on exposed bedrock, which drains northeast to Sanikiluaq Lake. The construction of the access road will not require blasting."*

Comment: Protection of surface drainage should be placed as a priority to ensure the down stream users are not impacted.

Recommendation: (R-04) CIRNAC recommends that an Operation and Maintenance plan for the road should submitted to the Board for approval. This plan should include maintenance inspections of the road and water crossings to ensure the protection of the natural drainage.

5. Decommissioning Phase

Section 2.8 states of the Biophysical Impact Assessment High Displacement *"Nearing the end of the 20-year operational life span of the turbines, decisions will be made regarding continuing operations of the wind park with new or refurbished turbines and/or other*

equipment or dismantling the operation and returning the site to its original condition using modern technologies to accomplish this objective.
Decommissioning of the wind farm would require de-installation and removal of all physical components and machinery from the Site. The access roads would remain if the Hamlet so desired. The collector lines, power line and substation would be removed. The transmission line will also be removed if it was no longer required for other purposes. Concrete turbine pads and building foundations will be removed to a reasonable depth and re-claimed unless the Hamlet wishes to use them as they are. The equipment used for the deconstruction would be essentially the same as for the construction (e.g., transport equipment, earth moving equipment and trucks to transport waste materials). Any areas disturbed by Project activities will be revegetated with a collection of native vegetation to prevent erosion.

Comment: The application package did not include an Abandonment and Reclamation plan.

Recommendation: (R-05) CIRNAC recommends that a conceptual Abandonment and Reclamation plan be developed and submitted to the Board for approval.