Anuriqjuak Nukkiksautiit Project

Project Proposal

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List of Acronyms

AGL – Above Ground Level

ASL – Above Sea Level

BESS – Battery Energy Storage System

CGS – Community Government Services

CWS – Canadian Wildlife Services

EDT – Economic Development and Transportation

EPP – Environmental Protection Plan

FEED – Front-end Engineering and Design

GN – Government of Nunavut

HTA – Hunters and Trappers Association

IQ – Inuit Qaujimajatuqangit

kW – kilowatt

kWh – kilowatt-hour

MBCA – Migratory Birds Convention Act

MET – Meteorological Evaluation Tower

MPa – megaPascals

MW – Megawatt

NIRB – Nunavut Impact Review Board

NNC – Nunavut Nukkiksautiit Corporation

NHC – Nunavut Housing Corporation

NTI – Nunavut Tunngavik Inc.

NWB – Nunavut Water Board

POL – Petroleum, Oil, and Lubricants

PPA – Power Purchase Agreement

PV – Photovoltaic

QBDC – Qikiqtaaluk Business Development Corporation

QC – Qikiqtaaluk Corporation

QEC – Qulliq Energy Corporation

QIA – Qikiqtani Inuit Association

RFI – Request for Information

RFP – Request for Proposals

SAO – Senior Administrative Officer

SAR – Species at Risk

SARA – Species at Risk Act

SDC – Sanikiluaq Development Corporation

STDs – Sexually Transmitted Disease

STIs – Sexually Transmitted Infection

TBD – To Be Determined

VEC – Valued Ecosystem Component

VSEC – Valued Socio-Economic Component

WSCC – Workers' Safety Compensation Commission

Executive Summary

The proposed Anuriqjuak Nukkiksautiit Project (the Project) is led by Nunavut Nukkiksautiit Corporation (NNC), with support from the Hamlet of Sanikiluaq. The Project is proposing to install wind turbines and a battery energy storage system (BESS) to be integrated with the community's electrical grid reducing the Hamlet's reliance on diesel fuel for electricity.

NNC is a wholly-owned subsidiary of Qikiqtaaluk Corporation (QC), the Regional Inuit Development Corporation for the Qikiqtani Region. NNC is a 100 percent Inuit owned clean energy developer established in 2018.

During QC's Regional Tour in 2015, Sanikiluaq showed interest in renewable energy. QC's business development arm, Qikiqtaaluk Business Development Corporation (QBDC), and NNC started working with the Hamlet in 2016 to look at renewable energy options. Ultimately a community-scale renewable energy project that would displace a high percentage of the community's use of diesel fuel for electricity generation was desired.

After a series of assessments including a feasibility study and Business Case, wind data collection and modelling, a bankable wind resource assessment and a Front-End Engineering and Design (FEED) study, the proposed Anuriqjuak Nukkiksautiit Project was established. The proposed Project includes:

- Installation and operation of up to ten wind turbines with a combined installed capacity of up to 1,000 kW located about 4.5 km south of the Sanikiluaq Airport
- Upgrading an existing community trail to the Project site access road
- Installation of a 5 km transmission line corridor that closely aligns with the access road when possible
- A microgrid controller platform
- BESS near the Qulliq Energy Corporation (QEC) power plant in town

The proposed Project is expected to generate about 50 percent of the community's electricity demand. The wind energy will be sold to the QEC for integration into the local electrical grid through an Independent Power Purchase arrangement. Community participation and financial benefits is of critical importance to the Project. NNC completed a study to explore a variety of benefit sharing models for renewable energy projects. A Nunavut tailored framework was developed that assesses the local community's capacity to work within the different benefit sharing mechanisms and bear the associated risk and liability. The Community Enhancement Fund model was identified as the recommended approach for the proposed Project, whereby the project developer NNC, retains all risk and liability for the project assets while ensuring the community retains fair financial benefit throughout the Project's operational life. The Community

Enhancement Fund is guided by local individuals within the community and can be used for local projects and developments as desired by the community.

The Project is on schedule for the project planning and preparation phase, including design development, to be completed in 2022-23. It is anticipated construction will start in 2023 pending regulatory approvals including the Nunavut Planning Commission (NPC) and the Nunavut Impact Review Board (NIRB) authorizations, a Power Purchase Agreement (PPA) with QEC, and other permits such as a development permit, Nunavut Water Board (NWB) water license for potential water crossings, and electrical permits. Local labour and participation will be maximized where possible during the construction phase and training will be provided. It is anticipated up to 15 local jobs will be created during construction. Project construction is anticipated to be completed in 2024, should construction commence in 2023. The Project is anticipated to have a minimum 20-year operational phase, with the goal that it can be extended for the permanent energy solution with regular maintenance and necessary equipment replacements. It is anticipated up to three local jobs will be created during the project operations including local operators, and maintenance technicians. At the end of the operational phase, decisions will be made regarding continuing operations of the wind site with the current turbines if still functional, 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.

Public and stakeholder engagement has been integrated in all project phases including early project planning starting from project conceptualization. As an Inuit-led and governed development, of utmost importance to the Project is safeguarding the well-being, values, and priorities of Sanikiluarmiut. The Nunavut Agreement has guided the engagement process to ensure Sanikiluarmiut participation in decision-making concerning the use of their land and local resources. A Stakeholder Engagement Plan has been developed which responds to the requests for accessible and continuous project updates which was identified by residents and local stakeholders during early project engagements.

The Project site options were established in collaboration with the public and community stakeholders. The optimal site was determined based on the areas identified by the community, restricted zones, existing roads and trails, environmentally sensitive areas, topographic considerations, and traditional land use in the area. The community has approved the final site. The site is within the municipal boundaries on unsurveyed land which is administered by the Commissioner of Nunavut. As part of the proposed Project, the site will be surveyed and titled to the Hamlet.

Biophysical surveys including bird, vegetation, aquatic, and wetland surveys commenced in 2019. Despite the COVID-19 pandemic, all but one survey was completed. The outstanding survey will be completed in summer 2022. The surveys integrated local participation. A biophysical impact assessment was completed to assess the potential impact the Project may have on the valued

ecosystem components (VECs) of the biophysical environment. The assessment recommended mitigation measures for any potential residual effect. These mitigation measures will be integrated with the project execution during construction and operations. The results of the impact assessment indicate that there are no significant impacts expected on the biophysical environment.

Socio-economic surveys were conducted to determine the potential impacts of the Project on the valued socio-economic components (VSECs). Engagements and interviews with the public and local stakeholders took place starting in 2016 and all concerns and issues raised were considered in the socio-economic impact assessment. A variety of engagement methods were utilized including public meetings, one-on-one interviews, radio call-in shows, and social media forums. Both the positive and negative impacts were assessed, and enhancement and mitigation measures recommended. These enhancement and mitigation measures were integrated with the Project Execution Plan and many are already implemented. The results of the socio-economic impact assessment indicate that there are no significant impacts expected on the socio-economic environment.

Monitoring plans were or will be developed to monitor the residual impacts of the Project on the various VECs and VSECs. A Wildlife Monitoring Plan and a Socio-Economic Monitoring Plan are to be developed, along with additional monitoring plans as the design development progresses.

There are several other developments occurring in Sanikiluaq. This includes several infrastructure projects within the core community area, a Territorial Park, and a protected area. Cumulative impacts were assessed to determine the effect of the Project, in conjunction with other projects and activities, that could impact the VECs or VSECs. Results of the assessment determined that there are no anticipated cumulative impacts on the VECs or potential cumulative negative impacts on the community wellness VSEC. This is caused by an increase in southern workers in the community for the Proposed project and another construction project during a short window of time. The cumulative impact assessment determined that it will not have a significant residual impact and it will be monitored as part of the socio-economic monitoring plan.

The Project is inherently sustainable as it utilizes a sustainable energy source to provide clean energy to Sanikiluaq reducing the community's reliance on diesel fuel for electricity. A sustainability assessment was conducted to assess the Project against community identified sustainability goals. The results of the sustainability assessment demonstrate how social, economic, cultural, and environmental sustainability are considered through all phases of the Project's development.

The proposed Project will make a true and meaningful impact on reducing Sanikiluaq's carbon emissions and reliance on diesel fuel. It will also bring many local benefits such as creating local employment and economic benefits. Execution of the proposed Project will be a catalyst for other community-scale projects across the Region and the Territory. Being an Inuit-led and Inuit-owned

project, it will demonstrate how to maximize local community benefits. With the integration of battery energy storage and a microgrid controller it will demonstrate how these community-scale renewable energy projects can be safely integrated with the local electrical grid. The battery and micro-grid controller will enhance the grid by stabilizing the delivery of electricity to the community while keeping the diesel generators turned off whenever the wind turbine generators can meet the demand. This allows the diesel generators to act as back-up generators, which greatly enhances the energy security and reliability for the hamlet, reduces outage frequency and offers redundancy for protection against the risk of equipment failure.

Nunavut needs to transition from diesel to sustainable energy systems. Renewable energy generation not only makes environmental sense, but also provides economic opportunities for Inuit. Establishing community-scale renewable energy projects with battery energy storage, such as the proposed Project, will provide long-lasting economic, environmental, and social benefits locally, regionally, and territory-wide.

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ᐅᓇ ᑐᒃᓯᕋᖅᑕᐅᔪᖅ ᐊᓄᕆᕐᔪᐊᖅ ᓄᒃᑭᒃᓴᐅᑏᑦ ᓴᓇᔭᐅᔪᖅ ᐅᓇ ᓯᕗᓕᐅᖅᑎᖃᖅᑐᑦ ᑖᒃᑯᓂᖓ ᓄᓇᕗᑦ ᓄᒃᑭᒃᓴᐅᑏᑦ ᑯᐊᐳᕇᓴᓐ, ᐃᑲᔪᖅᑕᐅᓪᓗᑎᒃ Hᐋᒻᓚᑦ ᓴᓂᑭᓗᐊᖅ. ᐅᓇ ᓴᓇᔭᐅᔪᖅ ᑐᒃᓯᕋᖅᑐᖅ ᐃᓕᐅᖃᖅᑕᐅᓗᑎᒃ ᐊᓄᕆᒧᑦ ᐸᐱᕋᐃᑦ ᐊᒻᒪᓗ ᐹᑕᕇᖅᑲᕐᕕᒃ ᐃᓚᓕᐅᑎᓯᒪᓂᐊᖅᑐᑦ ᓄᓇᓕᖕᓂ ᐆᒻᒪᕐᑯᑎᖃᐅᑎᖕᖓᓐᓄᑦ ᐊᑦᑎᒃᓯᓯᒪᓂᐊᕐᒪᑕ Hᐋᒻᓚᒃᑯᑦ ᐊᑐᓄᐊᕐᓂᖓ ᑏᓱᕐᒥᒃ ᐅᖅᓱᐊᓗᖕᒥᒃ ᐆᒻᒪᕐᑯᑎᖃᐅᑎᓕᓗᒍ.

ᓄᓇᕗᑦ ᓄᒃᑭᒃᓴᐅᑏᑦ ᑯᐊᐳᕇᓴᓐ ᓇᖕᒥᓂᕐᑯᑎᕆᔭᐅᔪᑦ ᕿᑭᖅᑖᓗᒃ ᑯᐊᐳᕇᓴᓐ, ᐊᕙᒃᑐᖅᓯᒪᔪᑦ ᐃᓄᐃᑦ ᐱᕙᓪᓕᐊᑎᑦᑎᓂᕐᒧᑦ ᑯᐊᐳᕇᓴᓐ ᕿᑭᖅᑕᓄᑦ. ᓄᓇᕗᑦ ᓄᒃᑭᒃᓴᐅᑏᑦ ᑯᐊᐳᕇᓴᓐ ᐅᓇ 100% ᐃᓄᖕᓂᑦ ᓇᖕᒥᓂᕆᔭᐅᔪᖅ ᓱᕈᖅᓴᐃᓐᖏᑦᑐᓂᒃ ᐆᒻᒪᕐᑯᑎᖃᐅᑎᒃᓴᓄᑦ ᓴᓇᓲᑦ ᓴᕿᑕᐅᓚᐅᖅᑐᑦ 2017-ᒥ.

ᑕᐃᑲᓂ ᕿᑭᖅᑖᓗᒃ ᑯᐊᐳᕇᓴᓐ ᐊᕙᒃᑐᖅᓯᒪᔪᓄᑦ ᐳᓚᕋᑎᓪᓗᒋᑦ 2015-ᒥ, ᓴᓂᑭᓗᐊᖅ ᑕᑯᑎᑦᑎᓚᐅᖅᑐᖅ ᐱᔪᒪᓂᕐᒥᖕᓂᒃ ᓄᓇᒥᑦ ᐆᒻᒪᕐᑯᑎᖃᐅᑎᓂᒃ. ᕿᑭᖅᑖᓗᒃ ᑯᐊᐳᕇᓴᓐ ᐱᓯᓐᓕᕆᕙᖓ ᐱᕙᓪᓕᐊᑎᑦᑎᓂᕐᒧᑦ, ᕿᑭᖅᑖᓗᒃ ᓇᖕᒥᓂᕐᑯᑎᓕᓐᓄᑦ ᐱᕙᓪᓕᐊᑎᑦᓯᓂᕐᒧᑦ ᑯᐊᐳᕇᓴᓐ, ᐊᒻᒪᓗ ᓄᓇᕗᑦ ᓄᒃᑭᒃᓴᐅᑏᑦ ᑯᐊᐳᕇᓴᓐ ᐱᒋᐊᓚᐅᖅᑐᑦ ᓴᓇᖃᑎᖃᖅᖢᑎᒃ Hᐋᒻᓚᒃᑯᓂᒃ 2016-ᒥ ᑕᑯᓐᓇᖅᖢᑎᒃ ᖃᓄᖅ ᓄᓇᒥᑦ ᐆᒻᒪᕐᑯᑎᖃᐅᑎᕆᔭᐅᔪᓐᓇᖅᑐᓂᒃ. ᐋᕿᒍᒪᓪᓗᑎᒃ ᓄᓇᓖᑦ ᑕᒪᕐᒥᒃ ᓄᓇᒥᑦ ᐆᒻᒪᕐᑯᑎᖃᐅᑎᖃᕐᓗᑎᒃ ᐃᓇᖏᓐᓂᐊᖅᑐᒥᒃ ᐊᑭᑐᔪᖅ ᐳᓴᑎᙵᒍᑦ ᓄᓇᓕᖕᓂ ᐊᑐᖅᑕᐅᔪᖅ ᑏᓱᖅ ᐅᖅᓱᐊᓗᒃ ᐆᒻᒪᕐᑯᑎᖃᐅᑎᕆᔪᓐᓃᕐᓗᒍ.

ᐊᒥᓱᑦ ᖃᐅᔨᓇᓱᒃᑕᐅᑦᑎᐊᓚᐅᖅᑐᑦ ᑖᒃᑯᐊᓗ ᑲᔪᓯᔪᓐᓇᕐᒪᖔᑕ ᑲᔪᓯᔪᓐᓇᓐᖏᓪᓕᒪᖔᑕ ᐃᓕᑦᑎᓇᓱᒃᑐᑦ ᐊᒻᒪᓗ ᐱᓐᓂᕆᔭᐅᔪᓐᓇᕐᓂᖓ, ᐊᓄᕆᒧᑦ ᖃᐅᔨᓴᕈᑎᑦ ᓄᐊᑕᐅᔪᑦ ᐊᒻᒪᓗ ᐊᑐᖅᑕᐅᔪᓐᓇᖅᑐᑦ, ᑮᓇᐅᔭᒃᑯᕕᖕᒧᑦ ᐃᓱᖅᐸᓪᓕᐊᔪᓐᓇᖅᑐᑦ ᐊᓄᕆᒃᑯᑦ ᐆᒻᒪᕐᑯᑎᖃᐅᑎᖃᕐᓗᒥ ᖃᐅᔨᓇᓱᒃᑕᐅᑦᑎᐊᓚᐅᖅᑐᖅ ᐊᒻᒪᓗ ᓯᕗᓂᐊᓂᑦ-ᐃᓱᐊᓄᑦ ᐊᐅᓚᐅᓯᕆᓂᖓ ᐊᒻᒪᓗ ᓴᓇᓯᒪᓂᖓ ᐃᓕᑕᐅᓇᓱᒃᖢᓂ, ᑐᒃᓯᕋᖅᑕᐅᔪᖅ ᐊᓄᕆᕐᔪᐊᖅ ᓄᒃᑭᒃᓴᐅᑏᑦ ᓴᓇᔭᐅᔪᖅ ᐱᒋᐊᖅᑎᑕᐅᓚᐅᖅᐳᖅ. ᐅᓇ ᑐᒃᓯᕋᐅᑎ ᓴᓇᔪᒪᔪᒧᑦ ᐅᑯᐊ ᐃᓚᒋᔭᐅᕗᑦ:

- ᐃᓕᐅᖃᕐᓗᒋᑦ ᐊᒻᒪᓗ ᐃᖏᕐᕋᓯᑎᓪᓗᒍ ᑎᑭᓪᓗᒋ ᖁᓕᑦ (10) ᐊᓄᕆᒧᑦ ᐸᐱᕈᐃᑦ ᑲᑎᑎᓪᓗᒋᑦ ᐃᓕᐅᖃᕐᓗᒋᑦ ᐆᒻᒪᕐᑯᑎᖃᐅᑎᖃᕐᑎᑦᑎᔪᓐᓇᕐᓂᖓ ᑎᑭᓪᓗᒍ 1,000 ᑭᓗᒍᐊᑦ ᐃᓂᖃᕐᓗᓂ ᐃᒻᒪᖄᖅ 4.5 ᑭᓚᒦᑕᔅ ᓂᒋᐊᓂ ᓴᓂᑭᓗᐊᖅ ᒥᑦᑕᕐᕕᖓᑕ.
- ᓄᑖᙳᖅᑎᓪᓗᒍ ᒫᓐᓇ ᐊᑐᖅᑕᐅᔪᑦ ᓄᓇᓕᖕᓂ ᐊᕐᑯᑖ ᓴᓇᔭᐅᔪᒧᑦ ᐃᓂᖓᓄᑦ ᐊᑐᖅᑕᐅᔪᓐᓇᕐᓂᐊᕐᒪᑦ ᐊᕐᑯᑎ
- ᐃᓕᐅᖃᐃᓗᑎᒃ 5 ᑭᓚᒦᑕᔅ ᐆᒻᒪᕐᑯᑎᖃᐅᑎᖃᕐᑎᑦᑎᔪᓐᓇᐅᑎᖏᑦᑕ ᓱᓗᐊ ᑖᒃᑯᐊᓗ ᖃᓂᒋᓪᓗᒋᑦ ᒪᓕᑦᑎᐊᖅᑕᖏᑦ ᐊᑐᖅᑕᐅᔪᖅ ᐊᕐᑯᑦ ᐊᔪᕐᓇᖏᑦᑎᓪᓗᒍ.
- ᑎᑭᐅᑎᔪᓐᓇᖅᑕᖓᓄᑦ ᐊᐅᓚᑦᑎᕕᖓᑕ ᐋᕿᒃᓱᐃᕕᖓ
- ᐸᑕᓖ ᐆᒻᒪᕐᑯᑎᖃᐅᑎᒃᓴᖅ ᑐᕐᖁᖅᓯᒪᔪᖅ ᖃᓂᒋᔭᖓᓂ ᖁᓪᓕᖅ ᐆᒻᒪᕐᑯᑎᓕᕆᔨᖏᑦᑕ ᑎᒥᕐᖁᑖ ᐃᑯᒪᓕᕐᒃᑯᑦ ᓄᓇᓕᖓᓄᑦ.

ᐅᓇ ᑐᒃᓯᕋᖅᑕᐅᔪᖅ ᓴᓇᔭᐅᔪᒪᔪᖅ ᓂᕆᐅᓇᖅᑐᖅ ᐊᑐᖅᑕᐅᔪᓐᓇᖅᑐᖅ ᖃᓂᒌᓂ 50% ᓄᓇᓖᑦ ᐆᒻᒪᕐᑯᑎᖃᐅᑎᖃᕐᕕᒋᓗᒍ. ᐊᓄᕆᒃᑯᑦ ᐆᒻᒪᕐᑯᑎᖃᐅᑎ ᓂᐅᕐᕈᑕᐅᓗᓂ ᖁᓪᓕᖅ ᐆᒻᒪᕐᑯᑎᓕᕆᔨᖏᑦᑕ ᑎᒥᕐᖁᑖ

ᐃᓚᓕᐅᑎᓗᓂ ᓄᓇᓕᖕᓄᑦ ᑎᑭᐅᑎᓯᒪᔭᖏᓐᓄᑦ ᐆᒻᒪᕐᑯᑎᖃᐅᑎᖃᕐᕕᖕᓄᑦ ᑕᒪᐅᓐᓇ ᐊᑕᐅᓯᕐᒧᑦ ᐆᒻᒪᕐᑯᑎᖃᕐᑎᑦᑎᕕᒃ ᐋᕐᕿᒃᓯᒪᓗᓂ. ᓄᓇᓕᖕᓂ ᐃᓚᐅᔪᑦ ᐊᒻᒪᓗ ᑮᓇᐅᔭᓕᐅᕈᑕᐅᓂᖕᒐ ᐊᖏᔪᒥᒃ ᐱᒻᒪᕆᐅᔪᖅ ᓴᓇᔭᐅᔪᒧᑦ. ᓄᓇᕗᑦ ᓄᒃᑭᖅᓴᐅᑏᑦ ᑯᐊᐳᕇᓴᓐ ᐱᔭᕇᓚᐅᖅᑕᖓ ᐃᓕᓐᓇᓯᒃᑕᑎᒃ ᕿᓂᖅᓱᑎᒃ ᐊᒃᓱᕉᓐᖏᑦᑐᓂᒃ ᐃᑲᔫᑎᒃᓴᓂᒃ ᐊᑐᖅᑕᐅᔪᓐᓇᖅᓯᖅᑐᓂᒃᑕᐅᖅ ᓄᓇᒥᑦ ᐆᒻᒪᕐᑯᑎᖃᐅᑎᒃᓴᓄᑦ ᓴᓇᔭᐅᓗᑎᒃ. ᓄᓇᕗᒻᒧᑦ ᐋᕐᕿᒃᓱᖅᓯᒪᔪᑦ ᖃᓄᐃᓕᐅᕈᑎᒃᓴᐃᑦ ᓴᕿᑕᐅᓚᐅᖅᑐᑦ ᑖᒃᑯᐊ ᖃᐅᔨᓴᕈᑎᐊᕐᓂᐊᖅᑐᑦ ᓄᓇᓕᖕᓂ ᐱᓕᕆᔾᖃᕈᓐᓇᕐᓂᕐᒧᑦ ᓴᓇᖃᑎᒥᓗᒥᑦ ᐊᒃᓱᕉᓐᖏᑦᑐᑦ ᐃᑲᔫᑎᒃᓴᐃᑦ ᐊᑐᖅᓯᒃᔪᑕᐅᔪᓐᓇᖅᑐᑦ ᐊᒻᒪᓗ ᐃᑲᔪᕈᓐᓇᖅᑐᑦ ᐊᑕᔪᓄᑦ ᐊᑦᑕᕐᓇᖅᑐᑦ ᐊᒻᒪᓗ ᐊᑭᓕᒃᓵᕈᓐᓇᖅᑐᑦ. ᓄᓇᓕᖕᓄᑦ ᐱᐅᓯᕚᓕᑦᑎᕈᑎᒃᓴᐃᑦ ᑮᓇᐅᔭᒃᓴᖅ ᐋᕐᕿᒃᓯᒪᓂᒃᓴᖓ ᓇᓗᓇᐃᖅᑕᐅᓚᐅᖅᑐᖅ ᐱᓕᐊᕈᑎᑦᑎᐊᕙᐅᔪᓐᓇᕐᓂᖓᓂ ᑑᒃᓯᖅᑕᐅᔪᒧᑦ ᓴᓇᔭᐅᔪᒪᔪᖅ, ᑕᐃᑲᓂᓗ ᐆᒻᒪᕐᑯᑎᖃᐅᑎᓕᐅᖅᑎᑦ ᓄᓇᕗᑦ ᓄᒃᑭᖅᓴᐅᑏᑦ ᑯᐊᐳᕇᓴᓐ, ᐱᓯᒪᓯᑦᑎᐊᕐᓗᑎᒃ ᑕᒪᐃᓐᓂᒃ ᐊᑦᑕᕐᓇᕈᓐᓇᖅᑐᓂᒃ ᐊᒻᒪᓗ ᐊᑭᓕᓇᐊᖅᑲᖅᓯᖅᑐᑦ ᓴᓇᔭᐅᔪᒧᑦ ᐱᕐᑯᑎᖏᓐᓄᑦ ᑕᐃᑲᓕ ᓄᓇᓖᑦ ᐱᓯᒪᒃᓕᑦᑎᐊᕐᓗᑎᒃ ᑮᓇᐅᔭᓕᐅᕈᑎᒥᓗᒍ ᐃᑲᔫᑎᓗᓂ ᑕᒪᐃᓐᓄᑦ ᓴᓇᔭᐅᓯᒪᔪᖅ ᐃᖏᕐᖁᑎᑕᐅᓕᖅᑎᓕᓗᒍ. ᓄᓇᓕᖕᓂ ᐱᐅᓯᕚᓕᑦᑎᑦᑎᔩᑦ ᑮᓇᐅᔭᒃᓴᖅ ᑐᑭᒧᐊᒃᑎᑕᐅᔪᖅ ᓄᓇᓕᖕᓂᑦ ᐊᑐᓂ ᐃᓄᖕᒥᑦ ᐊᒻᒪᓗ ᐊᑐᖅᑕᐅᓗᓂ ᓄᓇᓕᖕᓂ ᓴᓇᔭᐅᔪᓄᑦ ᐊᒻᒪᓗ ᐱᕙᓪᓕᐊᑎᑦᑎᔪᒪᒃᐸᑕ ᐱᔪᒪᔭᒥᖕᓂᒃ ᓄᓇᓖᑦ.

ᐅᓇ ᓴᓇᔭᐅᔪᖅ ᐋᕐᕿᒃᓯᓯᒪᔪᑦ ᐸᕐᓇᒃᑕᐅᓗᓂ ᐊᒻᒪᓗ ᐱᓕᕆᔭᐅᕙᓪᓕᐊᓗᑎᒃ ᐱᕚᓪᓕᖅᐸᓪᓕᐊᓂᐊᕐᓂᖓ, ᑕᒪᓐᓇᓗ ᓴᓇᓯᒪᓂᐊᕐᓂᖓᑕ ᐱᕙᓪᓕᐊᓂᕆᓂᐊᖅᑕᖓ, ᐱᔭᕇᕈᒫᖅᑐᑦ 2022-23. ᓂᕆᐅᓇᖅᑐᖅ ᓴᓇᔪᑦ ᐱᒋᐊᕐᓂᐊᖅᑐᑦ 2023 ᒪᓕᒃᑐᖅ ᒪᓕᒐᐃᑦ ᐊᖏᖅᑕᐅᒋᐊᓕᑦ ᑖᒃᑯᐊ ᓄᓇᕗᑦ ᐸᕐᓇᐃᔩᑦ ᐊᒻᒪᓗ ᓄᓇᕗᒻᒥ ᐊᕙᑎᓕᕆᔨᒃᑯᑦ ᑲᑎᒪᔨᖏᑦ, ᐆᒻᒪᕐᑯᑎᖃᐅᑎᖃᕐᑎᑦᑎᔪᓐᓇᕐᓂᕐᒧᑦ ᐊᖏᕈᑎ ᑖᒃᑯᓄᖓ ᖁᓕᖅ ᐆᒻᒪᕐᑯᑎᓕᕆᔨᖏᑦᑕ ᑎᒥᖁᑖ, ᐊᒻᒪᓗ ᐊᓯᖏᑦ ᐱᔪᓇᐅᑎᑦ ᓲᕐᓗ ᓴᓇᓂᐊᖅᑐᑦ ᐱᔪᓇᐅᑎᖓ, ᓄᓇᕗᒻᒥ ᐃᒪᓕᕆᔨᒃᑯᑦ ᑲᑎᒪᔨᖏᑦ ᐃᒪᕐᒧᑦ ᓚᐃᓴᓯ ᐃᒫᒍᑦ ᐃᑳᕐᕕᒃᑲᕐᓂᐊᕈᑎᒃ, ᐊᒻᒪᓗ ᐆᒻᒪᕐᑯᑎᖃᐅᑎᒃᓴᓄᑦ ᐱᔪᓇᐅᑎᑦ. ᓄᓇᓕᖕᓂ ᓴᓇᑎᑦᑎᓂᖅ ᐊᒻᒪᓗ ᐃᓚᐅᑎᑦᑎᓂᖅ ᐅᖃᓘᔾᔭᓂᐊᖅᑐᑦ ᐊᔪᕐᓇᖏᓐᓇᓕᒫᖔᒍᑦ ᓴᓇᔭᐅᕙᓪᓕᐊᓂᖔᓂᑦ ᐊᒻᒪᓗ ᐱᔭᕆᐅᖅᓴᑎᑕᐅᓗᑎᒃ. ᓂᕆᐅᓇᖅᑐᖅ ᑎᑭᓪᓗᒍ 15 ᓄᓇᓕᖕᓂ ᐱᓇᓱᐊᖅᑎᑦᑖᕐᓗᑎᒃ ᐃᖅᑲᓇᐃᔮᒃᓴᐃᑦ ᓴᕿᑕᐅᓗᑎᒃ ᓴᓇᔪᓂᑦ. ᓴᓇᔪᑦ ᓂᕆᐅᓇᖅᑐᑦ ᐱᔭᕇᕋᔭᖅᑐᑦ 2024-ᒥ, ᓴᓇᔭᐅᓂᖓ ᐱᒋᐊᕋᔭᖅᐸᑦ 2023-ᒥ. ᐅᓇ ᓴᓇᔭᐅᔪᖅ ᓂᕆᐅᓇᖅᑐᖅ ᓇᐃᓖᖅ 20-ᐅᑭᐅᓄᑦ ᐃᖏᕐᕋᑎᑕᐅᒐᔭᖅᑯᓂ ᐊᐅᓚᑕᐅᓗᓂ ᐋᕐᕿᒃᐸᓪᓕᐊᓂᖓ, ᑐᕌᓪᓗᒍ ᐊᑯᓂᐅᓂᖅᓴᐅᔪᓐᓇᕐᓗᓂ ᐆᒻᒪᕐᑯᑎᖃᐅᑎᑦᓯᔭᐅᖏᓐᓇᖅᐸᓪᓕᕐᓗᓂ ᓴᓇᔭᐅᖃᑦᑕᕆᐃᓐᓇᕐᓗᓂ ᐊᒻᒪᓗ ᓴᓇᕐᕈᑎᖏᑦ ᐊᓯᕈᖅᑎᖃᑦᑕᕐᒥᓗᒋᑦ. ᓂᕆᐅᓇᖅᑐᖅ ᑎᑭᓪᓗᒍ ᐱᖓᓱᑦ (3) ᓄᓇᓕᖕᓂ ᐃᖅᑲᓇᐃᔮᒃᓴᐃᑦ ᓴᕿᑕᐅᓗᑎᒃ ᓴᓇᔭᐅᔪᖅ ᐃᖏᕐᕋᑎᑕᐅᓕᖅᑎᓪᓗᒍ, ᑖᒃᑯᐊ ᓄᓇᓕᖕᓂ ᐊᐅᓚᐅᓯᕆᔨᑦ ᐃᑯᒪᓕᕆᔨᑦ, ᐊᒻᒪᓗ ᓴᓇᔨᐅᓂᐊᖅᑐᑦ ᖃᓄᐃᓕᐅᕆᐊᖃᖅᑐᓄᑦ. ᐃᓱᐊᓂ ᐊᐅᓚᑕᐅᓕᖅᑎᓪᓗᒍ, ᐃᓱᒪᓕᐅᕆᓴᕆᐊᖃᕐᓂᐊᖅᑐᖅ ᐱᔾᔪᑎᒋᓪᓗᒍ ᑲᔪᓯᑎᑕᐅᓂᐊᕐᒪᖔᑦ ᐃᑯᒪᓕᕆᓂᖓ ᐊᓄᕆᒃᑯᑦ ᐃᓂᖃᖅᑐᑦ ᒫᓐᓇᐅᔪᖅ ᐸᐱᕈᐃᑦ ᓯᓕ ᐊᐅᓚᔪᓐᓇᕈᑎᒃ, ᓄᑖᑦ ᐅᐃᕙᔫᓐᓃᑦ ᓄᑖᕐᔪᖅᑎᓯᒪᔪᑦ ᐸᐱᕈᐃᑦ, ᐊᒻᒪᓗ/ᐅᐃᕙᔫᓐᓃᑦ ᐊᓯᖏᑦ ᓴᓇᕐᕈᑎᑦ ᐅᐃᕙᔫᓐᓃᑦ ᐋᔭᖅᑕᐅᕕᖏᑦ ᐊᒻᒪᓗ ᐅᑎᖅᑎᑕᐅᓗᑎᒃ ᐃᓂᖏᓐᓄᑦ ᑕᐃᑲᓂ ᐃᓂᑐᖃᖓ ᐃᓕᕐᑯᓯᕆᓚᐅᖅᑕᖓ ᐅᑎᕐᓂᐊᕐᒪᑦ ᐊᑐᖅᓯᓗᑎᒃ ᓄᑖᓂᒃ ᖃᕆᓴᐅᔭᕐᑎᒍᑦ ᐱᔭᕇᓇᐊᖃᖅᑐᓄᑦ ᑕᒪᑐᒨᖓ ᑐᑭᓕᐅᕈᑕᐅᕙᓪᓕᐊᔪᑦ.

ᐃᓄᓕᒫᑦ ᐊᒻᒪᓗ ᑎᒍᒥᐊᖅᑎᑦ ᑲᑎᒪᖃᑎᕇᒃᓗᑎᒃ ᑕᒪᐃᓐᓄᑦ ᐊᑕᕗᖅ ᑕᒪᐃᓐᓄᑦ ᓴᓇᕙᐅᕙᓪᓕᐊᓂᓕᒫᖔᒍᑦ ᓯᕿᒃᐸᓪᓕᐊᓂᓕᒫᖔᒍᑦ ᑖᒃᑯᐊ ᐱᒋᐊᓕᓵᑦᑎᐊᖅᑎᓪᓗᒍ ᐸᕐᓇᐃᕙᓪᓕᐊᓂᖅ ᐱᒋᐊᕐᕕᒃᓴᕐᓗᑎᒃ ᓴᓇᔭᐅᔪᖅ ᖃᓄᑦ ᑕᐅᑦᑐᖃᕐᓂᐊᓚᐅᕐᓂᖓ. ᑕᐃᒪᓗ ᐃᓄᖕᓂᑦ-ᐊᐅᓚᑕᐅᓗᑎᒃ ᐊᒻᒪᓗ ᑐᑭᒧᐊᒃᑎᑕᐅᓗᑎᒃ

ᐱᕚᓕᐊᑎᑕᐅᓂᖓ, ᐊᖏᓕᒥᒃ ᐱᒻᒪᕆᐅᕗᖅ ᓴᓇᔭᐅᔪᖅ ᐊᑦᑕᕐᓇᓐᖏᑦᑎᐊᕐᑯᓗᒍ ᖃᓄᐃᖏᑦᑎᐊᕐᑯᓗᒋᑦ, ᐋᑎᖅᑰᓗᒍ, ᐊᒻᒪᓗ ᓯᕗᓕᐅᑎᕐᑯᔅᖏᑦ ᓴᓂᑭᓗᐊᕐᒥᐅᑦ. ᓄᓇᕗᒻᒥ ᐊᖏᕈᑎ ᑐᑭᒧᐊᒍᑕᐅᕗᖅ ᑲᑎᒪᕖᖅᑲᓗᑎᒃ ᐱᕚᓕᐊᔾᔪᑕᐅᓗᓂ ᑕᐃᒪᓗ ᓴᓂᑭᓗᐊᕐᒥᐅᑦ ᐃᓚᐅᓂᐊᕐᒪᑕ ᐃᓱᒪᓕᐅᕈᑕᐅᕚᓕᐊᔪᓂᒃ ᐱᔾᔪᑎᒋᓗᒋᑦ ᐊᑐᖅᑕᐅᓂᖓ ᓄᓇᖏᑦ ᐊᒻᒪᓗ ᓄᓇᖏᓐᓂᑦ ᐆᒻᒪᕐᑯᑎᖃᐅᑎᖃᕐᕖᐅᔪᒃᓴᐃᑦ. ᐅᑯᐊ ᑎᒍᒥᐊᖅᑎᑦ ᑲᑎᒪᐅᑎᒃᓴᖏᓐᓄᑦ ᐸᕐᓇᐅᑎᑦ ᓴᕿᑕᐅᓯᒪᔪᑦ ᑭᐅᓯᓂᐊᕐᒪᑕ ᑐᒃᓯᕋᖅᑕᖏᓐᓄᑦ ᐊᑐᕈᓐᓇᕐᓂᐊᖅᑕᒥᓐᓄᑦ ᐊᒻᒪᓗ ᑲᔪᓰᓐᓇᕈᑎᒃᓴᖏᓐᓂᒃ ᓴᓇᔭᐅᔪᖅ ᖃᓄᐃᓕᖓᓕᕐᒪᖔᑦ ᑐᓴᐅᒪᔾᔪᑎᒃᓴᖏᑦ ᐅᑯᐊᓗ ᓇᓗᓇᐃᖅᑕᐅᓯᒪᔪᑦ ᓄᓇᓕᖕᓂᑦ ᐊᒻᒪᓗ ᓄᓇᓕᖕᓄᑦ ᑎᒍᒥᐊᖅᑎᐅᔪᓂᑦ ᑕᐃᑲᓂ ᐱᒋᐊᓕᕝᖅᑎᓗᒍ ᑲᑎᒪᓂᐅᓚᐅᖅᑐᓂᑦ.

ᐅᓇ ᓴᓇᔭᐅᔪᖅ ᐃᓂᖓᒃᓴᖓ ᓂᕈᐊᖑᔪᓐᓇᖅᑐᓂᒃ ᓴᕿᑕᐅᓚᐅᖅᑐᖅ ᑐᑭᓯᓇᓱᖅᑲᑎᕆᓪᓗᑎᒃ ᐃᓄᓕᒫᓗ ᐊᒻᒪᓗ ᓄᓇᓕᖕᓄᑦ ᑎᒍᒥᐊᖅᑎᐅᔪᑦ. ᐋᑎᖃᕐᓖᖅ ᐃᓂᖓ ᖃᐅᔨᓇᖅᓯᓚᐅᖅᑐᖅ ᒪᓕᒃᑐᒋᑦ ᓄᓇᐃᑦ ᓇᓗᓇᐃᖅᑕᐅᓯᒪᔪᑦ ᓄᓇᓕᖕᓂᑦ, ᐃᓯᖅᑕᐅᔭᕆᐊᖃᖕᖏᑦᑐᑦ, ᒫᓇᐅᔪᖅ ᐊᕐᑯᑎᑦ ᐊᒻᒪᓗ ᐊᑐᕆᐊᑦ, ᐊᕙᑏᑦ ᐊᑦᑕᕐᓇᖅᑐᑦ ᓄᓇᖓᓂ, ᓄᓇ ᐃᓱᒪᒋᔭᐅᔪᑦ, ᐊᒻᒪᓗ ᐃᓄᐃᑦ ᐊᑐᖅᐸᒃᑕᑐᖅᑲᖏᑦ ᓄᓇᐃᑦ. ᓄᓇᓕᖕᓂ ᐊᖏᖅᑕᐅᓚᐅᓚᐅᖅᑐᖅ ᑭᖑᓕᖅᐹᖅᓯᐅᑎ ᐃᓂᒋᓂᐊᖅᑕᖓ. ᐅᓇ ᐃᓂᒋᓂᐊᖅᑕᖓ ᐃᓗᐊᓂ Hᐋᒻᓚᒃᑯᑦ ᑭᒡᓕᖓᓂ ᐊᒻᒪᓗ ᓄᓇᖓ ᐆᒃᑐᕋᖅᓯᒪᓐᖏᑦᑐᖅ ᑕᐃᒪᓗ ᐊᐅᓚᑕᐅᓂᐊᖅᑐᖅ ᑲᒥᓯᓇ ᓄᓇᕗᒻᒥᑦ. ᐃᓚᒋᓗᒍ ᑐᒃᓯᕋᖅᑕᐅᔪᖅ ᓴᓇᔭᐅᔪᒪᔪᖅ, ᐅᓇ ᐃᓂᖓ ᐆᒃᑐᕋᖅᑕᐅᓯᒪᔪᖅ ᐊᒻᒪᓗ ᐊᑐᕈᓐᓇᐅᑎᑦ ᓄᓇᒥᒃ Hᐋᒻᓚᒃᑯᓄᑦ.

ᐆᒪᔪᑦ ᑕᐅᕗᓃᑦᑐᑦ ᖃᐅᔾᔭᐅᓇᓱᑦᑎᐊᕐᓗᑎᒃ ᐃᓚᒋᔭᐅᓗᑎᒃ ᑎᖕᒥᐊᑦ, ᐱᕈᖅᑐᑦ, ᐃᒪᕐᒥᐅᑕᐃᑦ, ᐊᒻᒪᓗ ᐃᒪᖅᓯᐃᑦ ᐱᒋᐊᓚᐅᖅᑐᑦ 2019-ᒥ. ᑕᒪᐅᓇᐅᒐᓗᐊᖅᑎᓗᒍ ᓄᕙᒡᔪᐊᕐᓇᖅ-19 ᐊᐃᑦᑐᐃᕚᓕᐊᔪᖅ ᐋᓂᐊᓇᖅᑐᒥᒃ, ᑕᒪᕐᒥᒃ ᑭᓯᐊᓂ ᐊᑕᐅᓯᖅ ᖃᐅᔾᔭᐅᓇᓱᒃᑐᓂ ᐱᔭᕇᓐᖏᑦᑐᑑᓚᐅᖅᑐᖅ. ᐱᔭᕇᖅᓯᒪᓐᖏᑦᑐᑦ ᖃᐅᔾᔭᓴᕈᑎᑦ ᐱᔭᕇᖅᑕᐅᓂᐊᖅᑐᑦ ᐊᐅᔭᖓᓂ 2022. ᐅᑯᐊ ᖃᐅᔾᔭᓇᓱᒃᑕᐅᔪᑦ ᐃᓚᖃᕐᓂᐊᖅᑐᑦ ᓄᓇᓕᖕᓂᑦ ᐃᓚᐅᑎᑕᐅᔪᓂᑦ. ᐆᒪᔪᑦ ᐊᒃᑐᖅᑕᐅᔪᑦ ᖃᐅᔾᔭᓴᖅᑕᐅᓗᑎᒃ ᐱᔭᕇᕐᓗᓂ ᖃᐅᔾᔭᓇᓱᑦᑎᐊᕐᓂᖓᑦ ᖃᓄᖅ ᐊᒃᑐᖅᑕᐅᒐᔭᕐᒪᖔᑕ ᓴᓇᔭᐅᔪᒥᑦ ᐱᓯᒪᓂᖃᕋᔭᕈᓂ ᐋᑎᖅᑲᖅᑐᑦ ᐆᒪᔪᓕᒫᑦ ᐊᕙᑎᓕᒫᖏᓐᓗ ᐊᑕᔪᑦ ᐆᒪᔪᖏᓐᓂᒃ ᓱᓇᖃᕐᒪᖔᑕ ᐊᕙᑎᖓᓂ. ᐅᓇ ᖃᐅᔾᔭᓇᓱᒃᑎᑦᑎᐊᕐᓂᖅ ᐊᑐᓕᖅᑕᐅᕐᑯᔾᔪᓂᐊᖅᑐᖅ ᐊᒃᑐᓗᐊᖅᑕᐃᓕᑎᑦᑎᔾᔨᑎᒃᓴᓂᒃ ᖃᓄᑐᐃᓐᓇᖅ ᑕᒫᖓᑦ ᐊᒃᑐᐃᒐᔭᖅᑐᓂᑦ. ᐅᑯᐊ ᐊᒃᑐᓗᐊᖅᑕᐃᓕᑎᑦᑎᔾᔨᑎᒃᓴᐃᑦ ᐃᓚᓕᐅᑎᓂᐊᖅᑐᑦ ᓴᓇᔭᐅᔪᒧᑦ ᑕᐃᑲᓂ ᓇᐸᖅᓯᕚᓕᐊᑎᓗᒋᑦ ᐊᒻᒪᓗ ᐃᖏᕐᕋᓯᑎᑦᑎᓯᒪᓕᕐᑎᓗᒋᑦ. ᐋᕿᒍᑎᔪᑦ ᐊᒃᑐᐃᔪᓄᑦ ᖃᐅᔾᔭᓯᒍᑕᐅᔪᑦ ᓇᓗᓇᐃᖅᓯᓂᐊᖅᑐᑦ ᐊᖏᔪᒥᒃ ᐊᒃᑐᐃᓂᖅᑲᕐᓂᐊᓐᖏᑦᑐᖅ ᐆᒪᔪᑦ ᐊᕙᑎᖏᓐᓄᑦ.

ᐃᓅᓯᓕᕆᓂᕐᒧᑦ-ᑮᓇᐅᔭᓕᕆᓂᕐᒧᑦ ᖃᐅᔨᓴᕐᔪᑕᐅᔪᖅ ᐱᓕᕆᐊᖑᓂᐊᖅᑐᖅ ᖃᐅᔨᓇᖅᓯᒃᐸᑦ ᐊᒃᑐᐃᔾᔨᓇᖅᑐᓂᑦ ᓴᓇᔭᐅᔪᒥᑦ ᑕᒪᒃᑯᑎᒎᑦ ᐋᑎᖅᑲᖅᑐᑦ ᐃᓅᓯᓕᕆᓂᕐᒧᑦ-ᑮᓇᐅᔭᓕᐅᕈᑎᖏᓐᓄᑦ ᐃᓗᓕᖏᑦ ᐊᑕᔪᑦ. ᑲᑎᒪᖃᑎᒌᖕᓂᖅ ᐊᒻᒪᓗ ᐊᐱᖅᓱᐃᓂᖅ ᐃᓄᓕᒫᓂᒃ ᐊᒻᒪᓗ ᓄᓇᓕᖕᓄᑦ ᑎᒍᒥᐊᖅᑎᐅᔪᓂᒃ ᐱᓕᕆᐊᖑᓚᐅᖅᑐᖅ 2016-ᒥ ᐱᒋᐊᖅᓱᑎᒃ ᐊᒻᒪᓗ ᑕᒪᕐᒥᒃ ᐃᓱᒪᓘᑎᑦ ᐊᒻᒪᓗ ᐱᔾᔪᑕᐅᔪᑦ ᐅᖃᐅᓯᐅᓚᐅᖅᑐᑦ ᐃᓱᒪᒋᔭᐅᑦᑎᐊᖅᓱᑎᒃ ᐃᓅᓯᓕᕆᓂᖓᒍᑦ-ᑮᓇᐅᔭᓕᐅᕈᑕᐅᓂᖓᒍᑦ ᐊᒃᑐᐃᔪᑦ ᖃᐅᔨᓇᓱᒃᑕᐅᑎᓗᒋᑦ. ᐊᔾᔨᒌᓐᖏᑦᑐᓄᑦ ᑲᑎᒪᔾᔪᑎᖃᓚᐅᖅᑐᑦ ᐊᑐᓕᖅᑎᑕᐅᕚᓕᐊᓗᑎᒃ ᐃᓄᓕᒫᑦ ᑲᑎᒪᑎᑕᐅᓗᑎᒃ, ᐊᑕᐅᓯᐅᑦᑕᖅᓱᒋᑦ ᐊᐱᖅᓱᖅᓱᒋᑦ, ᐅᖃᓪᓚᒃᕖᒃᑯᑦ ᑐᓴᖅᓴᐅᓗᑎᒃ, ᐊᒻᒪᓗ ᐅᖃᓘᑎᕋᓛᑎᒍᑦ ᑐᓴᒃᓴᓕᕆᔾᔪᑕᐅᓕᖅᑐᑎᒍᑦ. ᑕᒪᕐᒥᒃ ᐱᐅᔪᑦ ᐊᒻᒪᓗ ᐱᐅᓐᖏᑦᑐᓂᒃ ᐊᒃᑐᐃᔪᑦ ᖃᐅᔨᓇᓱᒃᑕᐅᑦᑎᐊᓚᐅᖅᑐᑦ, ᐊᒻᒪᓗ ᐱᐅᓯᕗᓕᖅᓱᑎᒃ ᐊᒻᒪᓗ ᐊᒃᑐᓗᐊᖅᑕᐃᓕᑎᑦᑎᔾᔨᑎᒃᓴᐃᑦ ᐊᑐᓕᕐᑯᔭᐅᓗᑎᒃ. ᐅᑯᐊ ᐱᐅᓯᕙᓕᕈᑎᑦ ᐊᒻᒪᓗ ᐊᒃᑐᓗᐊᖅᑕᐃᓕᑎᑦᑎᔾᔨᑎᑦ ᐃᓚᓕᐅᑎᓚᐅᖅᑐᑦ ᓴᓇᔭᐅᔪᖅ

ᐃᖏᕐᕋᓯᑎᑕᐅᓂᐊᕐᓂᖓᑕ ᐸᕐᓇᐅᑖᓄᑦ ᐊᒻᒪᓗ ᐊᒥᓱᑦ ᐊᑐᖅᑕᐅᓯᒪᓕᕇᖅᑐᑦ. ᐋᕿᒍᑎᔪᑦ ᐃᓅᓯᓕᕆᓂᕐᒧᑦ-ᑮᓇᐅᔭᓕᐅᕈᑕᐅᓂᖓᓄᑦ ᖃᐅᔨᓇᓱᒃᑕᐅᔾᔪᑎᑦ ᐅᖃᖅᓯᒪᔪᑦ ᐊᖏᔪᒥᒃ ᐱᑕᖃᓐᖏᑦᑐᖅ ᐊᒃᑐᐃᔪᒥᒃ ᓂᕆᐅᕆᔭᐅᔪᖅ ᑕᒪᐅᓐᓇ ᐃᓅᓯᓕᕆᓂᒃᑯᑦ-ᑭᓇᐅᔭᓕᐅᕈᑕᐅᓂᖓᒍᑦ ᐊᕙᑎ.

ᒥᐊᓂᕆᔾᔪᑕᐅᔪᑦ ᐸᕐᓇᐅᑎᑦ ᓴᕿᑕᐅᓚᐅᖅᑐᑦ ᐊᒻᒪᓗ ᓴᕿᑦᑎᓂᐊᖅᑐᑦ ᒥᐊᓂᕆᔾᔪᑎᒃᓴᓂᒃ ᐊᒃᑐᐃᕙᓪᓕᐊᕋᐅᔭᕐᓂᐊᖅᑐᓂᒃ ᓴᓇᔭᐅᔪᒥᑦ ᑖᒃᑯᓇᖓ ᐊᔾᔨᒌᖏᑦᑐᑦ ᐊᑑᑎᖃᖅᑐᑦ ᐆᒪᔪᓕᒫᑦ ᐊᕙᑎᓕᒫᖏᓪᓗ ᐊᑕᔪᑦ ᐊᒻᒪᓗ ᐊᑑᑎᖃᖅᑐᑦ ᐃᓅᓯᓕᕆᓂᕐᒧᑦ-ᑮᓇᐅᔭᓕᐅᕈᑕᐅᓂᖓᓄᑦ ᐊᑕᔪᑦ. ᓂᕐᔪᑎᑦ ᒥᐊᓂᕆᔭᐅᔾᔪᑎᒃᓴᖏᑦ ᐸᕐᓇᐅᑎᑦ ᐊᒻᒪᓗ ᐃᓅᓯᓕᕆᓂᕐᒧᑦ-ᑮᓇᐅᔭᓕᐅᕈᑕᐅᓂᖓᓄᑦ ᒥᐊᓂᕆᔾᔪᑎᑦ ᐸᕐᓇᐅᑎᖏᑦ ᑎᑎᕋᖅᑕᐅᔭᕆᐊᖃᖅᑐᑦ, ᑖᒃᑯᐊᓗ ᖄᖓᒍᑦ ᒥᐊᓂᕆᔾᔪᑎᑦ ᐸᕐᓇᐅᑎᑦ ᓴᓇᓯᒪᔪᑦ ᐱᕙᓪᓕᐊᑎᑕᐅᑎᓪᓗᒍ ᐃᖏᕐᕋᕙᓪᓕᐊᕋᐅᔭᖅᑎᓪᓗᒍ.

ᑕᐃᒪᓗ ᐊᒥᓲᔪᑦ ᐊᓯᖏᑦ ᐱᕙᓪᓕᐊᑎᑕᐅᔪᑦ ᓴᓂᑭᓗᐊᕐᒥ. ᐅᓇ ᐃᓚᖃᖅᑐᖅ ᐊᒥᓱᓂᒃ ᓇᑉᐸᕆᐊᖃᖅᑐᓂ ᓴᓇᔭᐅᔪᑦ ᕿᑎᐊᓂ ᓄᓇᓖᑦ, ᑎᐅᓕᑐᐊᓕ ᒥᕐᖑᐃᖅᓯᕐᕕᒃ, ᐊᒻᒪᓗ ᓴᐳᒻᒥᔭᐅᕗᑦ ᐊᕙᓗᐊᓂ. ᐊᒃᑐᐃᖏᓐᓇᕋᔭᕐᓂᖓ ᖃᐅᔨᔭᐅᓯᑎᐊᖅᐳᖅ ᖃᐅᔨᓂᐊᕐᓗᓂ ᓴᓇᔭᐅᔪᖅ ᖃᓄᖅ ᐊᒃᑐᐃᒪᖔᑦ, ᑲᑎᖓᓪᓗᒋ ᐊᓯᖏᑦ ᓴᓇᔭᐅᔪᑦ ᐊᒻᒪᓗ ᖃᓄᐃᓕᐅᕈᑕᐅᔪᑦ, ᐅᑯᐊᓗ ᐊᒃᑐᐃᔪᓐᓇᖅᑐᑦ ᐊᑑᑎᖃᖅᑐᑦ ᐆᒪᔪᓕᒫᓄᑦ ᐊᕙᑎᓕᒫᓐᓄᓪᓗ ᐃᓗᓕᖏᓐᓄᓪᓗ ᐊᑑᑎᖃᖅᑐᓄᑦ ᐃᓅᓯᓕᕆᓂᕐᒧᑦ-ᑮᓇᐅᔭᓕᐅᕈᑎᖏᓐᓄᑦ ᐃᓗᓕᖏᓐᓂ. ᖃᐅᔨᓴᕐᓂᑦ ᖃᐅᔨᓇᖅᓯᔪᑦ ᓂᓇᐅᓇᖅᑐᑦ ᐊᒃᑐᐃᔫᖏᓂᖏᓐᓂᒃ ᐊᑑᑎᖃᖅᑐᑦ ᐆᒪᔪᓕᒫᓄᑦ ᐊᕙᑎᓕᒫᓐᓄᓪᓗ ᐃᓗᓕᖏᓐᓄᓪᓗ ᐃᓅᓯᓕᕆᓂᕐᒧᑦ-ᑮᓇᐅᔭᓕᐅᕈᑕᐅᓂᖓᓄᑦ ᐃᓗᓕᖏᓐᓂ.

ᐅᓇ ᓴᓇᔭᐅᔪᖅ ᑲᔪᓯᑎᐊᖅᑐᒥᒃ ᐊᑐᖅᑕᐅᓂᐊᖅᑐᖅ ᑲᔪᓯᑎᐊᖅᑐᒥᒃ ᐆᒪᒃᑯᑎᖅᑲᐅᑎᖅᑲᐅᓗᓂ ᑐᓂᓯᒪᓗᑎᒃ ᓱᑲᓯᐊᖅᑐᒥᒃ ᐆᒪᒃᑯᑎᖅᑲᐅᑎᖅᑲᐅᓗᑎᒃ ᓴᓂᑭᓗᐊᖅ, ᐊᑦᑎᒃᓯᒪᓕᑎᓪᓗᒋᑦ ᓄᓇᓕᖕᓂ ᐊᑐᓂᑦ ᐱᒋᐊᕐᓂᖏᓐᓂᒃ ᐆᒪᒃᑯᑎᖅᑲᐅᑎᖅᑲᐅᑎᓪᓗᒋᑦ. ᐅᓇ ᑲᔪᓯᑎᐊᖅᑐᒥᒃ ᐊᑐᖅᑕᐅᓂᐊᖅᑐᖅ ᑲᔪᓯᑎᐊᖅᑐᒥᒃ ᐊᑐᖅᑕᐅᓂᖓᑕ ᖃᐅᔨᓴᐃᔪᓐᓇᖅᑐᓂᒃ ᓄᓇᓕᖕᓂᒃ ᓂᐱᖃᖅᑎᑦᑎᓗᓂ ᑲᔪᓯᑎᐊᖅᑐᒥᒃ ᐃᓅᓯᓕᕆᓂᖅ, ᑮᓇᐅᔭᓕᐅᕈᑕᐅᓂᖓ, ᐱᓯᑐᕐᓂᖓᓄᑦ, ᐊᒻᒪᓗ ᐊᕙᑎᓕᕆᓂᕐᒧᑦ ᑲᔪᓯᑎᐊᖅᑐᒥᒃ ᐊᑐᖅᑕᐅᓂᐊᖅᑐᖅ ᑕᒪᐃᓄᑦ ᑲᔪᓯᑎᐊᖅᑐᒥᒃ ᓴᓇᔭᐅᔪᑦ ᐱᕙᓪᓕᐊᑎᑕᐅᑎᓪᓗᒍ.

ᐅᓇ ᑐᒃᓯᕋᖅᑕᐅᓯᒪᔪᖅ ᓴᓇᔭᐅᔪᒪᓪᓗᓂ ᖃᐅᔨᓇᖅᑐᒥᒃ ᐊᒻᒪᓗ ᑐᑭᖃᖅᑐᒥᒃ ᐊᒃᑐᐃᓂᐊᖅᑐᖅ ᐊᑦᑎᒃᓯᓗᓂ ᓴᓂᑭᓗᐊᖅ ᐸᐅᕿᓂᖓ ᐃᓯᐊᕿᓂᖓ ᐊᒻᒪᓗ ᐊᑐᓗᐊᕐᓂᖓᑦ ᑏᓯᖅ ᐅᖅᓱᐊᓗᖕᒥᒃ. ᑐᓂᓯᓯᒪᓂᐊᖅᑐᖅ ᐊᒥᓱᓂᒃ ᓄᓇᓕᖕᓂ ᐃᑲᔫᑎᓗᓂ ᓲᖅ ᓄᓇᓕᖕᓂᒃ ᐃᖅᑲᓇᐃᔭᑎᑦᑎᓗᓂ ᐊᒻᒪᓗ ᑮᓇᐅᔭᑎᒍᑦ ᒪᑭᒪᔾᔪᑎᖏᑦᑎᒍᑦ ᐃᑲᔫᑎᓗᓂ. ᐃᖏᕐᕋᓯᑎᑕᐅᓂᖓ ᑐᒃᓯᕋᖅᑕᐅᔪᖅ ᓴᓇᔭᐅᔪᒪᔪᖅ ᐃᓚᐅᑎᑦᑎᓂᐊᖅᑐᖅ

ᐊᓯᖏᓐᓂᒃ ᓄᓇᓕᖕᓄᑦ-ᑕᒪᐃᓐᓄᑦ ᓴᓇᓯᒪᔪᓂᒃ ᓇᒥᑐᐃᓐᓇᖅ ᐊᕕᒃᑐᖅᓯᒪᔪᓂ ᐊᒻᒪᓗ ᑎᐅᓕᑐᐊᓕ. ᐃᓄᖕᓂᑦ-ᐃᖏᕐᕋᑎᑕᐅᓂᖓ ᐊᒻᒪᓗ ᐃᓄᖕᓂᑦ-ᓇᖕᒥᓂᕆᔭᐅᓂᖓ ᓴᓇᔭᐅᔪᖅ, ᑕᑯᑎᑦᑎᓂᐊᖅᑐᖅ ᖃᓄᖅ ᐅᓄᖅᓯᑎᑦᑎᓯᒪᔪᓐᓇᕐᓂᖓ ᓄᓇᓕᖕᓄᑦ ᐃᑲᔫᑎᓂᒃ. ᐃᓚᓕᐅᑎᔭᐅᓗᓂ ᐸᑕᓖᖃᕐᕕᒃ ᐊᒻᒪᓗ ᐆᒻᒪᕐᑯᑎᖃᕐᑎᑦᑎᔪᓐᓇᕐᓂᖓᑕ ᑎᑭᐅᑎᓯᒪᓂᖓ, ᐅᓇ ᓴᓇᔭᐅᔪᖅ ᑕᑯᑎᑦᑎᓂᐊᖅᑐᖅ ᖃᓄᖅ ᓄᓇᓕᖕᓂ-ᑕᒪᐃᓐᓂᑦ ᓄᓇᒥᑦ ᐆᒻᒪᕐᑯᑎᖃᐅᑎ ᓴᓇᓯᒪᔪᖅ ᐊᑦᑕᕐᓇᙱᑦᑎᐊᖅᑐᒥᒃ ᐃᓚᓕᐅᑎᓯᒪᓂᖓ ᓄᓇᓕᖕᓂ ᐆᒻᒪᕐᑯᑎᖃᕐᑎᑦᑎᕕᐅᔪᓄᑦ. ᐅᓇ ᐸᑕᓖᖅ ᐊᒻᒪᓗ ᐆᒻᒪᕐᑯᑎᖃᕐᑎᑦᑎᓂᖓᑕ ᑎᑭᐅᑎᓯᒪᔪᓐᓇᕐᓂᖓ ᐱᐅᓯᕚᓪᓕᕐᑎᑦᑎᓂᐊᖅᑐᖅ ᑎᑭᐅᑎᔪᓐᓇᖅᑕᖏᓐᓄᑦ ᐋᕿᑦᑎᐊᕐᓗᓂ ᐆᒻᒪᕐᑯᑎᖃᐅᑎᖃᕐᑎᑦᑎᓂᖓ ᓄᓇᓕᖕᓄᑦ ᐱᓯᒪᐃᓐᓇᕐᓗᒋᑦ ᑏᓯ ᔪᓄᓚᐃᑕᐃᑦ ᖃᒥᖓᓗᑎᒃ ᖃᖓᓕᒫᓂᖅ ᐊᓄᕆᒃᑯᑦ ᔪᓄᓚᐃᑕᖃᓕᕈᑎᒃ ᑎᑭᐅᑎᓯᒪᔪᓐᓇᖅᑐᑦ ᐅᓄᕐᓂᖅᓴᓂᒃ ᐆᒻᒪᕐᑯᑎᖃᐅᑎᖃᕐᑎᑦᑎᓗᑎᒃ. ᐅᓇ ᐊᔪᖏᑎᑦᑎᔪᖅ ᑏᓯ ᔪᓄᓚᐃᑕᐃᑦ ᐊᑐᖅᑕᐅᖐᕐᓗᑎᒃ ᐊᔪᓕᖅᐸᑕ ᑖᒃᑯᐊ, ᑕᐃᒪᓗ ᐱᐅᓯᕚᓪᓕᕋᔭᖅᑐᖅ ᐆᒻᒪᕐᑯᑎᖃᐅᑎᑦ ᐊᑦᑕᕐᓇᖅᑐᒦᑎᑦᑎᓂᖏᓐᓂᖅᓴᐅᓗᑎᒃ ᐊᒻᒪᓗ ᐊᑑᑎᖃᕐᓗᑎᒃ ᕼᐋᓪᓚᒃᑯᓄᑦ, ᐊᑦᑎᒃᓯᓯᒪᓂᐊᖅᑐᖅ ᖃᒥᖃᑦᑕᕐᓂᖏᓐᓂᒃ ᓄᓇᓖᑦ ᐊᒻᒪᓗ ᐊᔾᔨᒌᒥᒃ ᓴᐳᒻᒥᔭᐅᓗᑎᒃ ᐊᑦᑕᕐᓇᕋᔭᖅᑐᓄᑦ ᓴᓇᕐᕈᑎᑦ ᐊᔪᓕᖅᐸᑕ.

ᓄᓇᕗᑦ ᓅᑦᑕᓇᐊᖃᓕᖅᑐᖅ ᐊᑐᕈᓐᓃᕐᓗᑎᒃ ᑏᓯᕐᒥᒃ ᐅᖅᓱᐊᓗᖕᒥᒃ ᑲᔪᓰᓐᓇᕈᑎᒋᓂᐊᕐᓗᒍ ᐆᒻᒪᕐᑯᑎᖃᐅᑎᓄᑦ. ᓄᓇᒥᑦ ᐆᒻᒪᕐᑯᑎᖃᐅᑎᑦ ᐊᕙᑎᒧᑦ ᐱᐅᔫᖕᒪᑕ, ᑭᓯᐊᓂᑦᑕᐅᖅ ᑮᓇᐅᔭᓕᐅᕐᑎᑦᑎᔭᖅᑐᑦ ᐃᓄᖕᓄᑦ. ᓴᖅᑭᑦᑎᒍᑎᒃ ᓄᓇᓕᖕᓄᑦ-ᑕᒪᐃᓐᓄᑦ ᓄᓇᒥᑦ ᐆᒻᒪᕐᑯᑎᖃᐅᑎᖃᕐᓗᑎᒃ ᐹᑕᓖᓄᑦ ᓄᒃᑭᖅᓴᐅᑎᑦ, ᓲᕐᓗ ᑐᒃᓯᕋᖅᑕᐅᔪᑦ ᓴᓇᔭᐅᔪᓚᓐᓗᓂ, ᑐᓂᓯᓯᒪᓂᐊᖅᑐᖅ ᐊᑯᓂᐅᔪᒥᒃ ᑮᓇᐅᔭᓕᐅᕈᑕᐅᓗᓂ, ᐊᕙᑎᑦᑎᓄᑦ, ᐊᒻᒪᓗ ᐃᓅᓯᕐᒍᑦ ᐃᑲᔫᑎᑦᑎᐊᖅᑐᑦ ᓄᓇᓕᖕᓄᑦ, ᐊᕕᒃᑐᖅᓯᒪᔪᓄᑦ, ᐊᒻᒪᓗ ᑎᐅᓕᑐᐊᓕ-ᑕᒪᐃᓐᓄᑦ.

1.0 Introduction

The purpose of this project proposal is to provide an overview of the proposed Anuriqjuak Nukkiksautiit Project (the Project), provide information about the community and stakeholder engagements that have informed the Project to date and continued engagement plans, and to summarize the assessment of the Project's potential environmental and cumulative impacts as well as planned mitigation measures.

1.1 Project Overview

The Project is a wind energy and storage platform tailored for deployment in the Hamlet of Sanikiluaq, Nunavut. The currently recommended project configuration consists of 1,000 kilowatts (kW) wind energy and a 500 kilowatt-hours (kWh) Battery Energy Storage System (BESS). A meteorological evaluation tower (MET) was installed in the community in March 2017 and the Site-Specific Wind Resource Assessment confirmed that the wind resource in the area has significant potential for an economically viable wind energy system.

The Project aims to provide clean, affordable, and reliable energy to the community while assuring local benefits including job creation, and a local economic boost. A primary goal of the Project is to reduce diesel reliance for electricity production in the community by at least 50 percent. While the annual diesel offset will remain consistent, it is expected that there will be periods of time where the wind energy penetration rate exceeds 50 percent, especially in the winter months. As such, early analysis is ongoing to determine opportunities to utilize the excess electricity to generate heat locally for the community buildings, or to integrate additional storage technologies into the facility.

From late April 2022 through to early June 2022, NNC worked closely with the local Sanikiluaq schools and the Hamlet Council to organize a naming competition for the project. Before this time, the project had been referred to as the Sanikiluaq Wind Energy and Battery Energy Storage System Project, which can be seen on some existing project documentation throughout the report and appendices. Suggestions were collected from various classes at the schools, the list was narrowed down to five names, and then passed along to the Hamlet Council for the final decision resulting in the formal project name Anuriqjuak Nukkiksautiit Project.

1.2 Proponent Information

Nunavut Nukkiksautiit Corporation (NNC) is a 100 percent Inuit-owned renewable energy developer. NNC is a wholly owned subsidiary of Qikiqtaaluk Corporation (QC), the Qikiqtani Region's Inuit Economic Development Corporation. QC is a 100 percent Inuit-owned birthright development corporation established in 1983 by the Qikiqtani Inuit Association (QIA). QIA is a Designated Inuit Organization under the Nunavut Agreement and is one of the three Regional Inuit Associations affiliated with Nunavut Tunngavik Inc. (NTI).

NNC was created to pursue clean energy projects across the Qikiqtani Region. In close partnership with Qikiqtani communities, they invest in, own, and operate local renewable energy systems. As an affiliated company of QC, they are uniquely positioned to understand the needs and sensitivities of renewable energy development in Nunavut. NNC plays a central role in promoting, developing, and realizing Inuit-owned and operated clean energy technologies and energy storage systems.

As a wholly owned subsidiary of QC, NNC operates according to QC's policies and procedures, mission, vision, and values. NNC is guided by QC's mandate to strengthen the social, environmental, and economic well-being of the Qikiqtani Region and the 15,500 Inuit QC represents. NNC upholds Inuit Qaujimajatuqangit (IQ) and respects and nurtures the environment, economy, and people. NNC cares for and protects Nunavut's land and resources. NNC strives to establish sustainable renewable energy developments that foster local economic, social, and environmental benefits.

NNC is governed by a 100% Inuit Board of Directors (BOD). The Officers of the Corporation include the Chair, Vice Chair, President, Vice Chair, President, Vice President, and Secretary Treasurer. The BOD approves annual Business Plans, Quarterly Reports, Project Reports and/or requests for further funding. NNC's corporate and operations office is located in Iqaluit, Nunavut.

Table 1: Proponent Information

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1.3 Project Ownership Information

Community participation in renewable energy projects is of critical importance to the overall success of the project. When coupled with informed and ongoing consent, the value from renewable energy projects can be mutually beneficial and can align the interests of both community and project.

Through community partnerships and participation, businesses and communities can establish a framework with a common vision and purpose to help share the value generated by renewable

energy projects through the fair and equitable development of natural resources within the community.

NNC recently completed a study to explore a variety of benefit sharing models for renewable energy projects to help clarify alignment with community interests and identify the benefits and drawbacks of alternative benefit sharing mechanisms. The study explored eleven different benefit sharing mechanisms and developed a Nunavut tailored framework to assess the community's capacity to work within the different benefit sharing mechanisms and bear the associated risk and liability.

The Community Enhancement Fund model was identified as the recommended approach for the proposed Project. This mechanism establishes a Community Enhancement Fund through which a fixed annual fee, or a fair percentage of revenues (whichever is larger year over year) is returned to the community. A Guiding Body is established, comprised of community representatives, who determine the most appropriate use of funds in alignment with community priorities and needs. With this, the community receives direct financial benefits from the Project, without the traditional requirement to take on risk and liability through equity ownership. Through the Community Enhancement Fund model, the project developer retains all risk and liability for the project assets while ensuring the community retains fair financial benefit throughout the project's operational life.

This proposed benefit sharing model was presented to the Sanikiluaq Hamlet Council in March 2022. The Council was supportive of this model however NNC will continue to engage with the community on the proposed model.

For more details relating to the benefit sharing mechanisms explored and community assessment methodology, the Community Benefit Sharing Study Final Report in Appendix A.

1.4 Project Purpose and Need

To reduce carbon emissions and respond to climate change, Nunavut needs to transition from diesel to sustainable energy systems. Renewable energy generation not only makes environmental sense, but also provides economic opportunities for Inuit.

Nunavut relies almost exclusively on diesel energy. Less than 0.1 percent of the territory's electricity is generated through clean energy (Canada Energy Regulator 2021). Many diesel power plants operating in the North are aging and inefficient. Eleven of the 25 diesel power facilities in Nunavut are operating at the end or beyond their planned lifespan (Nunavut Tunngavik Inc. 2020, 53).

None of the 25 communities in Nunavut, including Sanikiluaq, are connected to the North American electrical grid, or to a piped natural gas network. Sanikiluaq has its own independent electricity generation and distribution system powered exclusively by one diesel power plant with three generators. There is no back-up grid servicing any community in Nunavut.

Renewable energy projects can result in healthier communities. Decreasing the dependence on diesel, which must be shipped to Nunavut over long distances and stored in communities, will reduce the risk of spills during transport and storage. Use of diesel can also have negative health impacts such as increasing the risk of respiratory problems.

To make a true and meaningful impact on reducing Nunavut's carbon emissions and reliance on diesel fuel as well as creating local employment and economic benefits, high penetration renewable energy projects are needed. These are community-scale renewable energy projects that generate a high percentage of the community's electrical demand.

The proposed Project in Sanikiluaq is a flagship community-scale renewable energy project in Nunavut. Execution of the proposed Project will be a catalyst for other community-scale projects across the Region and the Territory. Being an Inuit-led and Inuit-owned project, it will demonstrate how to maximize local community benefits. With the integration of battery energy storage and a microgrid controller it will demonstrate how these community-scale renewable energy projects can be safely integrated with the local electrical grid, while also enhancing the grid by stabilizing the delivery of electricity to the community. The diesel generators can remain turned off whenever the wind turbine generators can meet the demand, allowing them to act as back-up generators, which greatly enhances the energy security and reliability for the hamlet, reduces outage frequency and offers redundancy for protection against the risk of equipment failure. The proposed Project's target of a 50 percent penetration rate will significantly reduce the community's reliance on diesel. Additionally, it is anticipated that excess energy can be used in the district heating system.

Ultimately, establishing community-scale renewable energy projects with battery energy storage will provide long-lasting economic, environmental, and social benefits locally, regionally, and territory-wide.

2.0 Environmental and Regulatory Setting

2.1 Regional Context

Sanikiluaq is the southernmost community in the Qikiqtani Region of Nunavut. The community is located on the north end of Flaherty Island, the largest of the Belcher Islands in Hudson Bay. The population of Sanikiluaq is approximately 1,010 with a 95 percent Inuit population. The predominant spoken languages are Inuktitut and English and the average age is 26. The main economic activities are subsistence harvesting, fishing, soapstone carving, basket making, and tourism (Qikiqtani Inuit Association 2022).

The Belcher Islands are situated in southeastern Hudson Bay. The landscape is topographically low-lying and barren, comprised of nearly a hundred islands that are predominantly rounded and undulating to flat. Sanikiluaq is located just south of western Eskimo Harbour on northwestern Flaherty Island - the largest of the Belcher islands (Wood Environmental 2022, 4). The elevation ranges from 2 m to 31 m above sea level (ASL) (Wood Environmental 2022, 18)

Sanikiluaq is closer geographically to Ontario and Quebec than to other Nunavut communities. It is about 170 km west of the western shores of Nunavik in northern Quebec and about 425 km east of Peawanuck, Ontario. The closest Nunavut communities are Rankin Inlet and Coral Harbour in the Kivalliq Region of Nunavut, which are about 900 km northwest of Sanikiluaq (Google Earth 2022).

Soapstone is quarried on Tukarak Island of the Belcher Islands which is east of Flaherty Island. The soapstone is the basis of a successful local carving industry. The rocky coastal cliffs near Sanikiluaq are nesting grounds for the eider ducks. Sanikiluarmuit sustainably collect the eiderdown for use in parkas and duvets. The sparse vegetation on the islands includes lyme grass which is used locally for handcrafted baskets (Qikiqtani Inuit Association 2022).

Like all communities in Nunavut, Sanikiluaq is not connected to the North American electrical grid and is only accessible by air and sea. Sanikiluaq does not have any shared infrastructure with other communities in the Region. The closest infrastructure projects near the Project site are in town and include a new Hamlet Office building, staff housing units and a new Local Housing Authority office for the Nunavut Housing Corporation (NHC), reconstruction of the Amaulik Inns North Hotel, and a research center led by the Arctic Eider Society.

There are two proposed areas in proximity to the Project site that are currently under development/consideration for designated protected areas. The Kinngaaluk Territorial Park is northwest of the Project site and is proposed as an area for cultural activities and subsistence harvesting. Qikiqtait Protected Area is proposed as a pan-Belcher Island Archipelago conservation area aimed at promoting the conservation economy of the area by protecting resources and identifying opportunities for the community to benefit through sustainable use.

More in depth information on the biophysical environment is found in Section 4 of the Biophysical Impact Assessment High Displacement Renewable Energy Project Report available in Appendix B. Additional information on the socio-economic environment is found in Section 4 of the Sanikiluaq Wind Energy Project Socio-Economic Impact Assessment Report available in Appendix C.

Current and Future Land Use Plans

The Project is subject to the current Sanikiluaq Community Plan No.83 (Sanikiluaq Community Plan 2014) and Sanikiluaq Zoning By-law No.84 (Sanikiluaq Zoning By-law 2014). A Draft Community Plan and Zoning By-law is currently under review and is anticipated to come into effect in summer 2022.

The Project supports the policies of the current and draft Community Plan to encourage local economic development activities. As well, the Community Plan supports the adoption of alternative energy supply technology, such as wind power. The draft Community Plan identifies a future road extension and transmission line to the Project site that will support the development. The Project is also consistent with the provisions of the current and draft Zoning By-law. The draft Zoning By-law supports the development of Wind Turbines within the Nuna Zone.

The Draft Community Plan identifies the watershed of the community's water supply. The policies in the Watershed Overlay are to prohibit all development in the Overlay, unless it can be demonstrated that it will have no impact on the Hamlet's water source. This was taken into consideration during project planning and preliminary design. Project components, including the turbine site and access road have been planned to the maximum extent possible to be outside the Watershed Overlay. This is further explored in the impact assessment.

The Nunavut Land Use Plan is currently under development and will apply to the Project site. The draft Nunavut Land Use Plan designates the project site as "Limited Use." The Limited Use designation applies due to the Beluga Calving grounds. Wind Turbines are not listed as a prohibited activity/development in this area.

2.2 Land Tenure

The proposed Project site and locations of the wind turbines are identified in the map in Figure 1.

The land for the Project site and all lands between the built-up community and the Project site are Untitled Municipal Land and administered by the Commissioner of Nunavut.

A preliminary sketch plan has been prepared that identifies the proposed boundaries of the land needed for the Project based on the location of the wind turbines. This preliminary sketch plan has been approved by the Hamlet Council and is awaiting approval from the Government of Nunavut (GN) Community and Government Services (CGS) acting on behalf of the Commissioner.

A legal survey will be conducted in summer 2022 which will identify the legal boundaries of the Project site. Once the survey process is complete, the title to the lands will be raised and issued to the Hamlet.

To gain access to the lands, NNC will enter into a Commissioner's lease while the legal survey is being prepared and lands are registered with the Lands Title Office. Once the Project site lands are titled to the Hamlet, NNC will execute a lease with the Hamlet.

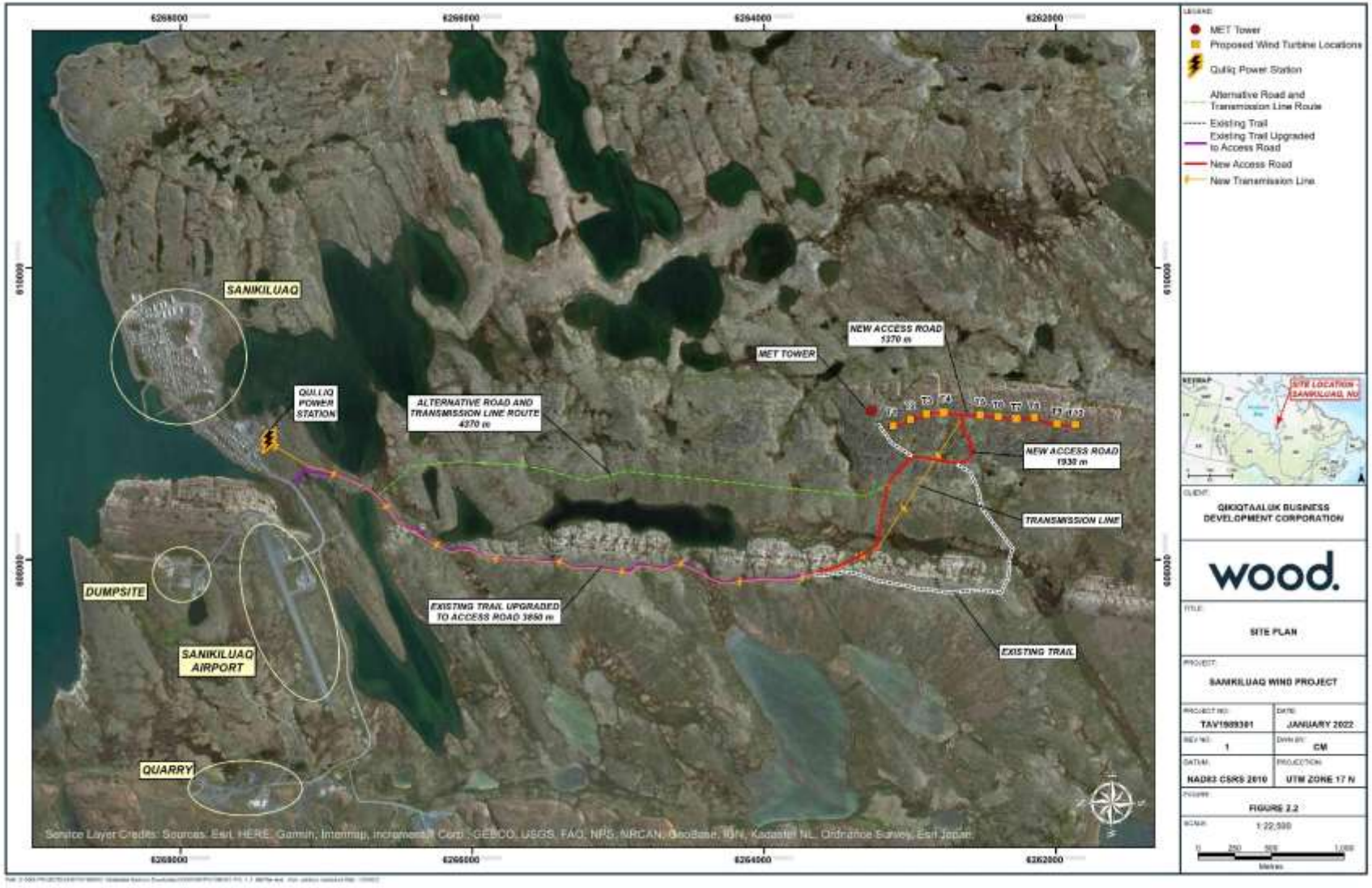

Figure 1: Sanikiluaq Site Plan (Wood 2022, 6).

2.3 Regulatory Regime

Detailed information regarding the applicable federal, territorial, community and utility approval processes can be found in the Sanikiluaq Permitting Plan document, attached in Appendix D. The table below demonstrates an overview of the anticipated permits throughout the development of the Project. The Sanikiluaq Permitting Plan will be updated throughout the development of the Project, such that the To Be Determined (TBD) timelines will be answered, and a confirmed list of permits will be established.

Table 2: Anticipated Project Permits and Approvals

Agency	Permit/Authorizations Requirement	Status/Anticipated Timeline	Notes
Hamlet of Sanikiluaq	Formal letter of support for Project	Obtained	
	Development Permit	Submitted after design development	Project plans and any required studies will be submitted with Development Permit application
	Preliminary Sketch Plan approval	Obtained on March 24, 2022	Needed to acquire land
	Land Application	In process	
	Provisional Plan (legal survey) endorsement	Anticipated summer 2022	Hamlet endorsement prior to Final Survey Plan being registered at the Land Titles Office
	Municipal Lease	TBD	Signed after land is titled to the Municipality
Nunavut Planning Commission (NPC)	Conformity Determination	Submitted	To be included: • Project Schedule • Construction Labor • Construction Materials and Equipment • Waste Management • Anticipated Permits (Included in this Table) • Community Engagement • Environmental Effects
Nunavut Impact Review Board (NIRB)	Screening Decision	Submitted after NPC conformity determination	Similar to NPC Submission
	Full Project Review	Dependent on screening decision	

Agency	Permit/Authorizations Requirement	Status/Anticipated Timeline	Notes
Government of Nunavut - Community and Government Services	Commissioner's Lease Agreement for New Lot	T	To be developed after land application approval
	Building Permits (Safety Services)	TBD	Civil and electrical authorization of detailed design needs to be obtained prior to construction
	Chief Building Inspector and Chief Electrical Inspectors Approval	TBD	
Government of Nunavut – Economic Development and Transportation (EDT)	Approval Letter from Nunavut Airports	TBD	To be requested after design development prior to construction
NavCanada	Land Use Proposal Review	TBD	To be requested after design development prior to construction
Transport Canada	Aeronautical Assessment	TBD	To be requested after design development prior to construction
	Radar Works	TBD	To be requested after design development prior to construction
Nunavut Water Board (NWB)	Class B water license	TBD	Potentially needed for access road water crossings – to be confirmed during design development of access road.
NRCan	Geomagnetic Observatory Confirmation of Compliance	TBD	TBD
Department of Fisheries and Oceans	Water crossing approval	TBD	May require review and approval by DFO (as per NWB Guide 3 – Activities that Require a Water Licence and Types of Water Licences)
QIA	Letter of Support	N/A	Not required but will obtain
Qulliq Energy Corporation (QEC)	System Integration Study authorization	TBD	System Integration or Interconnection study will assess the Project's impact to the electrical grid
	Technical design and operating requirements authorization	Discussions stalled	

Agency	Permit/Authorizations Requirement	Status/Anticipated Timeline	Notes
	Power Purchase Agreement (PPA)	Negotiations pending	NNC is hopeful that discussions can progress outside of the IPP policy/program
	Generation and Connection Agreement	Negotiations pending	NNC is hopeful that discussions can progress outside of the IPP policy/program

2.3.1 Land Acquisition Approvals

Survey Application

The preparation and registration of a legal survey for the Project area will be required. The legal survey process requires Preliminary Sketch Plan approval from the Hamlet and the Government of Nunavut CGS Director of Planning. Approval from the Hamlet was obtained on March 24, 2022. With Hamlet approval, the GN's CGS Director will review and approve, anticipated to be received by the end of June 2022.

When this Preliminary Sketch Plan approval is obtained, a surveyor will perform a legal survey anticipated to be completed between July and September 2022. The Provisional Plan prepared by the surveyor will require Hamlet endorsement prior to the Final Survey Plan being registered at the Land Titles Office. This process can take up to six months.

Land Application

A Land Application has been submitted and approved by the Hamlet on March 24, 2022. The land application process is governed by the Sanikiluaq Land Administration By-law No.63. The Hamlet has approved the land application, and a draft Commissioners Lease has been issued, based on the Sketch Lot identified on the Preliminary Sketch Plan. Once the Final Survey Plan is registered, the Commissioners Lease will be surrendered, and a new Municipal Lease executed and registered on title.

If the Final Survey Plan is registered at the Land Titles Office and title raised in the name of the Hamlet prior to the Commissioners Lease being executed, the Commissioners Lease will not be necessary and only a Municipal Lease will be executed.

3.0 Project Components and Activities

3.1 Project Alternatives

In 2016, QC started looking at renewable energy opportunities across the Qikiqtani Region. QC wanted to support Qikiqtani communities in making a real and meaningful impact on reducing Nunavut's carbon emissions and reliance on diesel fuel through community-driven renewable energy projects that bring local employment and economic benefits.

Qikiqtaaluk Business Development Corporation (QBDC) led the initiatives and secured funding for several feasibility studies across the region. Sanikiluaq had communicated to QC their interest in renewable energy and therefore QBDC started working closely with the Hamlet to develop a project.

Several alternatives were considered including:

- Do-nothing
- Building-scale options
- Large scale solar
- Wind – one, 1 megawatt (MW) turbine
- Wind – multiple smaller scale turbines

1. Do-nothing Approach

This alternative was ruled out from the project initiation as it was determined that it is not sustainable to continue to be 100 percent reliant on diesel fuel for electricity and heating and it did not bring economic benefits for the community.

2. Building-scale Renewable Energy Installations

Building-scale renewable energy systems, such as roof-top photovoltaic (PV) installations, were considered but were ruled out early on in project conceptualization. The interest was to establish a renewable energy project that could generate a high proportion, over 50 percent of the community's electricity demand (penetration rate). Achieving a high penetration rate through building-scale installations was not possible in Sanikiluaq because they simply do not have the volume of infrastructure to host enough installations to achieve a 50 percent penetration rate.

3. Ground-mount PV Power Plant

A large ground-mount PV power plant was considered. It was ruled out early on in the project conceptualization phase because the solar regime would not supply a consistent level of penetration over the year, with far less in the winter months compared to the summer. Additionally, the cost of an installation large enough to achieve more than 50 percent penetration rate was limiting.

Moreover, in the QEC report *Potential for Wind Energy in Nunavut Communities*, Sanikiluaq was identified as being within the top ten communities in Nunavut with favourable wind energy potential (Pinard et al. 2016, 21).

Given the irregular solar regime and the wind opportunity, this alternative was not advanced for further consideration.

4. One, 1 MW Wind Turbine

One large wind turbine was considered that has a power capacity of around 1 MW. This option was identified to have additional challenges because there is a redundancy concern, as well as constraints associated with a remote community such as logistics, heavy equipment, and specialized technicians. Using a singular, larger turbine, would mean that if it were to go down (for maintenance, for example) all renewable power generation would be stopped entirely. With respect to community constraints, large turbines require large cranes to be erected which are not available in Sanikiluaq and would be costly and logistically challenging to ship to the community. Additionally, the logistics of offloading the turbine parts from the boat and transporting the cranes and large turbine parts to site may require construction of wider and more robust access roads. This would add significant costs to the project. Furthermore, larger turbines require more specialized technicians to operate and maintain the turbines who would likely need to be flown into the community.

This alternative is being advanced, in addition to the several smaller-scale wind turbines alternative, but is noted to have additional logistical challenges associated with installing large-scale turbines.

5. Several Smaller-Scale Wind Turbines

Smaller-scale wind turbines (100-300 kW) are easier to erect in remote communities and are typically simpler and more economic to operate and maintain.

Small-scale turbines require more modest equipment to be imported into a community for construction purposes and much of the required equipment is typically available locally. Additionally, a greater number of small-scale wind turbines versus one or two large turbines mitigates the grid impacts of having one or two turbines shutdown, power is still available from the remaining turbines that are operating. Furthermore, with more turbines, one can be taken offline for maintenance while the others are still in operation to continuously feed renewable energy into the grid.

Typically, smaller-scale turbines are easier to operate and maintain as they have smaller generators.

For these reasons, the several smaller-scale wind turbines alternative was advanced in addition to the one, larger wind turbine alternative.

3.2 Project Phases

Table 3 below demonstrates the specific tasks related to the Sanikiluaq project that span all phases of the project life.

Table 3: Project Phases

Project Phase	Timeline
Project Planning and Preparation	2016 through to 2022
Construction Phase	2023 to 2024
Operation Phase	2024 to 2044
*Decommissioning Phase	*2044

**Decommissioning will only occur if it is determined through detailed consultation and technical review that extending the life of the turbines and refurbishment is not a preferred avenue for the project after 2044.*

This schedule has been developed as an initial outline of potential progression rate but will be updated as more details regarding PPA negotiations are determined. Without a PPA in place, the Project is unable to proceed to the construction phase and will be stalled in the planning and preparation until it is established.

3.2.1 Project Planning and Preparation

To optimize the Project layout, several surveys were required which included a meteorological survey, environmental surveys, and a desktop geotechnical assessment described below. Public and stakeholder engagement took place throughout all stages and activities of the project planning and preparation phase.

Feasibility Study

In 2016, QBDC initiated a feasibility study to advance the initial findings from the QEC report, Potential for Wind Energy in Nunavut Communities, that recommended Sanikiluaq as the most appropriate community in Nunavut for integrating smaller 100 kW wind turbines. With further modelling and analysis, the feasibility study produced a Business Case that recommended a wind project with under ten 100 kW turbines and battery energy storage. The full May 2017 Business Case for Wind Energy in Sanikiluaq report is available in Appendix E.

Meteorological Survey

The purpose of a meteorological survey is to evaluate the exact wind conditions of a location to assess the economic and technical feasibility of the wind resources prior to the execution of a wind project. For the proposed Project, a 34 m MET was installed on March 28, 2017, approximately 4.5 km south of the airport on a ridge with an elevation of approximately 77 m ASL. The location of the MET was established in consultation with the public and community stakeholders. Airport authorities, NavCan, and Transport Canada have ceiling height restrictions for any tower within 4 km of the airport runway centre which requires an official survey, so the MET was sited outside of this Airport Zoning Regulation area.

The MET was equipped with two wind speed sensors, or anemometers, at 20 m and 34 m above ground level (AGL). Wind direction sensors were installed at 33 m and a temperature sensor installed at 2 m AGL. Although data collection is ongoing, the measurements used were collected from March 28, 2017 to March 1, 2020 (Salmon 2020, 11).

The MET reported an average wind speed of 8.5 m/s at 34 m AGL and estimated to be 8.8 m/s at the proposed hub height (distance from the ground to the centre of the turbine's rotor) of 50 m (Salmon 2020, 6). The predominant wind direction is northwest, spreading from the northwest to southwest, and are strongest in the fall.

This meteorological survey was a go/no-go decision point. The wind resource assessment demonstrated the wind regime has excellent potential for a wind energy project and therefore project planning progressed.

Environmental Surveys

To fully understand the environmental constraints of the Project, several environmental surveys were conducted, including:

- General site walkthroughs; and,
- Bird surveys; and,
- Vegetation/rare plant surveys; and,
- Aquatic and wetland surveys; and,
- Socio-economic surveys.

Flora and fauna species at risk (SAR) surveys were integrated in the wetland, vegetation, bird, and wildlife survey, conducted by personnel indicated in Table 4.

Table 4: Project Survey Information

Survey	Personnel and Qualifications	Survey Period
Wetlands / Vegetation	Christina Brodribb, BAEM, R.T.(Ag)	Aug. 2021
Avian Species Inventory and Behaviour Assessment	Maureen Cameron, M.Sc. Silas Novalinga Charlie Takatak	Dec. 2019 Dec. 2019, Feb. 2020, May to July 2021, Sept. to Oct. 2021 Feb. 2022
Socio-economic Surveys	Odonaterra (Managing Director: Caroline Coburn, MA, RPP, MCIP)	September 2021-April 2022

The environmental surveys were a go/no-go decision point. If the public and stakeholders did not support the Project and if there was a significant environmental impact expected, the project would not be advanced. The surveys indicated that no significant biophysical and socio-economic impacts are expected.

Geotechnical Assessment

A desktop geotechnical assessment was completed as part of the planning process to assess the general subsurface conditions (Canadian Projects Limited 2021, 11) within the Project footprint. The purpose of geotechnical investigation was to determine engineering recommendations for designing the earthworks and foundations for structures to prevent human and material damage due to foundation cracks, shifts in permafrost, and other potential effects of the environment on the Project.

The information reviewed indicated that bedrock is exposed at the site and suitable for the proposed Project. The top 2 m to 3 m may be highly fractured due to frost-shattering; jointing and weathering; and considered less competent, but below that, the bedrock is assumed to be more competent with published uniaxial compressive strengths ranging from 100 megaPascals (MPa) to over 250 MPa and described as very strong to extremely strong.

The geotechnical survey was not a go/no-go decision point. The survey is used to inform the foundation design.

Front-end Engineering and Design

The front-end engineering and design (FEED) is an important aspect of the preparation and planning phase that focuses on technical design specific to the Project. The various pieces of work undertaken, or to be undertaken, are listed below. Further details can be found in Appendix F.

- Power and Energy Modelling – prepared to determine the amount of energy the wind turbines need to produce, and how much storage capacity is needed of the BESS to achieve a minimum of 50 percent diesel generation offset for the community.
- Civil Design – includes preliminary civil design specifications and drawings related to a variety of project components noted below. These preliminary designs and drawings will be revisited through the final planning stages as turbine manufacturers and models are determined.
    - Roads, Crane Pads, and Laydown Areas
    - Turbine Layout and Foundations
    - Collector, Transmission, and Interconnection
    - Battery Energy Storage and Auxiliary Systems

- Wind Turbine Generator Supplier Assessment – prepared to assess various wind turbine generators, establish list of possible suppliers through a request for information (RFI), understand supply availability and lead times, scope offerings, and key commercial terms (warranty, training, operation support, etc.). This assessment indicated to the proponent that issuing a request for proposals (RFP) would be the best method to select a suitable turbine model and manufacturer for the project.
- Electrical Design – includes the preliminary electrical design specifications and schematics related to a variety of project components noted below.
    - Proposed Distribution Line Feeder
    - Wind System Substation and Battery Energy Storage
    - Wind Site Plant and Wind Turbines
    - Protection & Control
    - Supervisory Control & Data Acquisition
- Regulatory Authorizations – this includes all the key permits, licenses, and approvals that are required to be attained ahead of project construction. Without these authorizations, the project will not be able to proceed.

The FEED study was a go/no-go decision point. The study results showed that the preliminary design work would result in a feasible and successful technical project implementation, allowing the Project to advance. As the end of the project planning phase nears, the preliminary design will be revisited and revised as further project details, such as turbine models, are confirmed.

3.2.2 Construction Phase

Access road construction will be the start of the construction phase, followed by electrical line and foundation installation. It is anticipated that turbine and BESS delivery will begin in July 2023 and be completed by October 2023. The proposed turbines are planned to be commissioned and operational by November 2023.

The total construction process will entail:

- Grubbing and access road/laydown areas construction; and,
- Construction of turbine foundations; and,
- Installation of collector lines between and from turbines to substation; and,
- Substation upgrade and BESS installation; and,
- Installation of turbines; and,

- Testing and commissioning of turbines; and,
- Removal of all temporary works and restoration of the Site.

All electrical installations and materials will be compliant with the Canadian Electrical Code, and all construction activities outlined below will be addressed in a Project Environmental Protection Plan (EPP).

3.2.3 Operation Phase

The operational life span of the turbines is rated as 20 years, during which maintenance activities will be required from time to time. Operation of the Project will commence when the required approvals and authorizations are in place to supply energy to the grid. Additionally, the access road will also need to be maintained at a level suitable to boom truck-sized vehicles, but on a level below that required for heavy cranes. Re-grading of the access road may periodically be required, and ditches along the road will need to be regularly maintained as well.

3.2.4 Decommissioning Phase

Nearing the end of the 20-year operational life span of the turbines, decisions will be made regarding continuing operations of the wind site with the current turbines if still functional, 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 requests this. The collector lines, power line, and substation would be removed. The transmission line will also be removed if it is 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.

3.3 Detailed Project Description

The following sections summarize the planning, design work, and documentation that has been completed to date. For further details, the Sanikiluaq Wind Energy and BESS Project Summary Report can be found in Appendix F.

3.3.1 Project Location

In November 2016, a Council meeting and a public community meeting were held to introduce the Project and potential Project sites. Initial potential sites were proposed to the community members based on the Potential for Wind Energy in Nunavut Communities report commissioned by QEC (Pinard et al. 2016). During the public meeting, community members identified the QEC

Report recommended areas were not preferred as other development was planned for that area. Elders identified an area south of the airport was windy and a good location for turbines.

Between December 2016 and January 2017, the Sanikiluaq Hunters and Trappers Association (HTA) was consulted on the area south of the airport, which led to a recommendation of three specific sites. Two of the three sites were within the Airport Zoning Regulations boundary and therefore deemed prohibitive.

The Project Team selected an optimal site based on the areas identified by the community, restricted zones, existing roads and trains, environmentally sensitive areas, topographic considerations, and traditional land use in the area. The community then approved the site for installation of the MET.

3.3.2 Turbines

The turbine selection process is currently ongoing and will be completed through an RFP. The installed capacity will equate to 1,000 kW, allowing for a variety of options to be considered such that the most suitable turbine from the RFP responses will be selected for the Project. The evaluation criteria for selecting the turbine manufacturer includes criteria such as:

- Cost (fixed and variable)
- Total Energy Generation Capacity
- Canadian/Cold Climate Experience
- Sound Level Curves

Based on work thus far, which has included an RFI, there is confidence that there will be adequate quality responses to the RFP. The RFI received six different manufacturer responses proving quality turbine options for the Project.

Grouted rock-socketed steel pipe piles encased in a concrete pier or tied to a steel foundation base (if the use of steel is more feasible than concrete) have been recommended for the wind turbine foundations. These are considered the least susceptible foundation type to the effects of climate change. A rock anchored pier or footing on bedrock system is also considered an acceptable foundation for the wind turbines if suitable installation equipment for the anchors is readily available in Sanikiluaq and construction is planned in the summer when temperatures are suitable for concrete works.

3.3.3 Project Site Access

All-season, unpaved access roads will be required to access each turbine location from existing trails during the construction, operation, and decommissioning phases of the Project. Figure 1 highlights the existing ATV trails that are used by community members, which can be upgraded and extended to allow for Project site access. There are two route options being considered, both

offering benefits to the community by improving access to berry picking, egg collecting, fishing, and hunting grounds. The primary choice for routes is the one that more closely follows the existing trail, but the second option is being considered in the event any issues arise and an alternate route is required. These proposed routes were selected by design to minimize environmental impacts.

The road will be a single lane (4 m wide) access road. Passing points will be provided at a minimum spacing of 500 m, and turnarounds shall be provided at all dead ends where reversing more than 200 m is required or is not practical. Road design speeds are as follows (Canadian Projects Limited 2020, 17):

- Main Roads: 50 km/h
- Site Access Road: 30 km/h
- Turn Around: 10 km/h

3.3.4 Transmission Line Corridors

The transmission line will begin at the Project site, and end at the existing QEC Power Station Facility. As shown in Figure 1, the transmission line closely follows the access road to minimize any environmental disruption, except where a more direct routing will result in significant cost savings.

It is planned that an overhead aerial line will be constructed from the wind site to a new wind system substation located adjacent to the existing QEC powerhouse. The total distance is approximately 5 km.

3.3.5 Battery Storage

The battery storage system is to be placed as physically close to the QEC plant as possible, either within the yard or just outside. The alternative location for the batteries would be to locate them outside of the community near the turbines. The preference for near the QEC plant is for a variety of reasons, which include reducing losses by keeping the batteries as close to the load centre as possible. Additionally, locating the BESS close to the load will enhance the system reliability by not requiring the use of the overhead line from site and removes a single point of failure, reduces the amount of switchgear and related ancillary equipment required, the protection and control interconnections are shorter and simpler to interface with various components, and limits the amount of equipment placed outside of the town to keep it accessible and secure.

The specific BESS model and manufacturer are to be determined through an RFP like the turbines. This ensures a variety of alternatives are considered and the most applicable and suitable is selected for the Project and the community.

3.3.6 Potential Future Developments

Through the FEED study of the proposed Project, it has become evident that there is the potential to expand the scope to possibly include various other future developments. This could include using excess generation beyond the 50 percent diesel offset towards a district heating system or other hamlet developments or adding additional turbines and BESS to increase the production and storage capacity of the completed project to further reduce diesel reliance and increase renewable energy penetration. Any future developments that may arise after the completion of the Project will be discussed with the Hamlet.

4.0 Public and Stakeholder Engagement

4.1 Engagement Principles

As an Inuit-led and governed project development, of utmost importance to the Project is safeguarding the well-being, values, and priorities of Sanikiluaq community members. The Nunavut Agreement has guided the engagement process to ensure Sanikiluarmiut participation in decision-making concerning the use of their land and local resources.

As such, the engagement principles are rooted in Inuit rightsholder participation and ensuring transparent, meaningful, complete, and ongoing engagement with community members. The Project's engagement principles include:

- Forming an ongoing relationship with the community, building trust through a continuing process of discussions, decisions, and follow-through. Initial public consultation began in 2016 to provide information about, gather feedback on, and gain support for a feasibility study and the installation of the MET to gather data on wind conditions. Since 2016, consultation has been ongoing and has included diverse community stakeholders.
- Ensuring a two-way communication process with both the community and NNC contributing information, ideas, and feedback. Throughout all project phases, NNC ensures community feedback is considered and incorporated into project decision-making and ensures follow-up on all community concerns, questions, and ideas is prioritized. Additionally, NNC values and prioritizes transparency in all communications with the community.

4.2 Engagement Activities

Between 2016 and 2020 engagements were held on an as needed bases intermittently during the Project feasibility, data gathering and early planning phases. Over the past two years, as the project progressed into the FEED phase and impact assessment activities, engagement has been more structured and regular.

With challenges related to securing accommodations, flight cancellations due to weather, and COVID-19 restrictions the intended on-site engagements were restricted and therefore a flexible engagement approach was required. Alternate engagement methods including hiring a community liaison, establishing an advisory committee, and hosting digital engagements were considered.

NNC attempted to hire a community liaison to engage the community and facilitate the sharing of Inuit Qaujimajatuqangit (IQ) and community knowledge to inform on the Community Benefit Sharing study and the impact assessment work. Unfortunately, due to limits to human resources, a liaison could not be hired. NNC will continue to seek opportunities for hiring a community liaison.

For the socio-economic impact assessment, efforts were made to establish an advisory committee including contacting known local leaders, based on their current or previous roles within the community, to identify possible committee members and request recommendations for other committee members or consultative options. A committee had not been established by the time in-community engagements occurred in February 2022.

The below Table 5 provides an overview of the groups consulted, the various engagement activities, and the engagement outcomes throughout the project planning and preparation phase. A detailed Consultation Record inclusive of engagement material and records is included in Appendix G.

Table 5: Consultations Summary

Date	Activity	Groups Engaged	Summary/Outcome
August 2016 – March 2017	Feasibility and installation of MET	• Hamlet Council • Senior Administrative Officer (SAO) • Public, Elders • HTA	• Sought and received letter of support for funding applications to install MET • Project introduction and preliminary feedback • Site selection in collaboration with HTA and Elders • Provided information on wind data collection phase • Sought and received Council approval to install MET • Sought and received Council approval for wind data gathering phase • Follow-up responses to community questions/concerns during public meeting
April 2017 – Sept 2019	Wind Data Gathering and Assessment Federal Funding Application Development and Approval	• Hamlet Council • SAO • QIA	• Sought and received Project support letters to submit with federal funding application for high penetration wind project • Updates provided on results of wind assessment • Notified Council of funding approval
Oct 2019 – March 2022	FEED	• Hamlet Council • Community members • SAO • HTA members	• Sought letter of support for Project • Sought letter of support for NNC to act on behalf of Hamlet in discussion with GN

Date	Activity	Groups Engaged	Summary/Outcome
		• Arctic Eider Society members • QIA	• Press release on Project with quote from Mayor • Various Project updates to Hamlet Council and reaffirmation of support • Informal discussions with HTA and Arctic Eider Society members about project • Job advertisement for community liaison • Council meeting on proposed Community Benefits Sharing Model
December 2019 – March 2022	Environmental Surveys	• Hamlet Council • HTA members • Arctic Eider Society members • Community members • Member of Legislative Assembly (MLA) • Head Nurse • Local hunters • Nunavut Arctic College Instructor • Community Justice Coordinator • Economic Development Officer • School principal • Income Support Coordinator	• Avian and Wildlife Field Surveys – local hunter engaged to participate in surveys • Socio-economic impact assessment activities including interviews, engagement, radio shows, social media chat groups and other activities to discuss project, answer questions, provide comments and concerns, etc. • Council meeting held to follow-up on major concerns/issues identified during consultations with various groups and to propose mitigation measures

4.3 Key Issues and Concerns

Generally, there is support for the Project across all groups consulted. Several key issues and concerns were raised by various community members and stakeholder groups which are summarized in Table 6. These key issues and concerns were evaluated as part of the biophysical and socio-economic impact assessments. More details can be found in the Biophysical Impact Assessment document in Appendix B and in the Socio-economic Impact Assessment document in Appendix C.

Table 6: Public and Stakeholder Key Issues and Concerns

Issue / concern type	Issue / concern summary	NNC response	Status
Alternative energy security	Concerns about energy pricing and differences between wind and diesel	NNC communicated that pricing will be up to provider, QEC NNC will provide ongoing education to provide clarity about energy prices and fluctuations in diesel vs. wind costs	Ongoing
Alternative energy security	Interest in solar and why this alternative has not been considered	NNC communicated that solar could be possible but there are additional considerations including battery storage and space, and winter versus summer production capabilities NNC considered solar during the Project conceptualization phase but it was ruled out as the goal was to demonstrate a high renewable energy penetration project which is best achieved in Sanikiluaq through wind	Resolved
Alternative energy security	Concerns about lack of information on green energy and its benefits; need for more education	NNC communicated interest in working with schools and students to build awareness; suggested student competition to name project	Ongoing
Alternative energy security	Questions about why Sanikiluaq was chosen for this project	NNC communicated that it was due to the region's high winds and community interest During the Project conceptualization phase, Sanikiluaq was selected as the community had reached out to QBDC with interest in renewable energy and Sanikiluaq was within the top ten Nunavut communities for having the best conditions for a wind power project in the 2016 QEC commissioned report, *Potential for Wind Energy in Nunavut Communities*	Resolved
Alternative energy security	Questions about how power outages will be	NNC communicated that power will likely be more reliable as there will be	Resolved

Issue / concern type	Issue / concern summary	NNC response	Status
	affected by switching to wind energy	two different systems and battery storage	
Effects of the environment on the Project	Questions about how well wind turbines work in the south compared to the north	NNC communicated that they work well in the south and the north, with an average lifespan of 30 years	Resolved
Effects of the environment on the Project	Concerns about minimum wind requirements	NNC communicated studies have demonstrated wind to be sufficient, meets minimum requirement; battery storage system provides energy during periods of low wind	Resolved
Effects of the environment on the Project	Concerns about extreme weather events impacting turbines	NNC communicated turbines would be sourced with safety features that prevent blades from spinning in high winds, and may include blade defrosting	Resolved
Effects of the environment on the Project	Interest in understanding why additional data was collected when airport data exists	NNC communicated that this was to gather additional data at the same height as turbines would operate and closer to the proposed location	Resolved
Effects on land and resource use sites	Potential land uses in the area may include goose egg harvesting, fishing, berry gathering	NNC determined that consultations found limited land use for these purposes in the proposed Project location and that an improved access road would benefit berry pickers and hunters	Resolved
Effects on land and resource use sites	Questions about whether compensation will be provided to harvesters if there is an extensive loss of wildlife in the region	Wildlife disturbance and associated disruptions to harvesting activities are assessed in sections 7.3 and 7.4; impacts are expected to be limited to the Project area	Resolved
Effects on land and resource use sites	Concern about road integrity and possible impacts to water and fish	Assessed in sections 7.3 and 7.4	Resolved
Effects on wildlife	Concerns about potential impacts to birds, including geese, raptors, snowy owls	Assessed in section 7.4	Resolved

Issue / concern type	Issue / concern summary	NNC response	Status
Effects on wildlife	Concerns about fox dens in the area	Assessed in section 7.4	Resolved
Employment and training opportunities	Interest in jobs and skills training	NNC indicated the Project includes a training plan to train residents as operators and hiring locally during construction to the greatest extent possible and that a possible collaboration with the Arctic College will be explored	Resolved
Employment and training opportunities	Questions about how many new jobs would be created	NNC communicated that the final number will depend on the types of turbines built, as well as the available number of trained workers in the community, and would provide final numbers once available	Ongoing
Employment and training opportunities	Concerns about lack of employment in the community and its impact on youth	NNC communicated that there may be training opportunities for youth who are interested in working for the Project and would provide details once they are available	Ongoing
Housing and temporary accommodation impacts	Concerns about housing availability for workers and related community stresses on already limited resource, including lack of safe spaces for domestic abuse victims	NNC communicated options for accommodations would be explored, including the hotel NNC will explore options including a temporary lodging camp for the workers if there are no temporary accommodations available in the community	Ongoing
Noise impacts	Concerns about noise from turbines impacting humans, fish, birds, wildlife	Assessed in sections 7.3 and 7.4; impacts are expected to be limited to the Project area and noise will be imperceptible at regional level	Resolved
Operations, Maintenance, Costs, and Risks	Concerns about money leaving the community	NNC communicated that the goal was to keep money in the community The Community Enhancement Fund will allow revenue from the Project to be reinvested in the community as determined by the community	Resolved

Issue / concern type	Issue / concern summary	NNC response	Status
		Inuit rightsholders will benefit indirectly through the return of money through QC which is the regional development corporation.	
Operations, Maintenance, Costs, and Risks	Questions about the possibility of windmills being sized to fit cabins	NNC communicated that this is possible but there are more risks to these, including that they are more likely to break	Resolved
Operations, maintenance, costs, and risks	Concerns about lack of resources in community to operate manage and maintain the wind turbines	NNC communicated external workers and/or training of local workers may be required to fill gaps in operations/maintenance capacity and decisions would be made in collaboration with the community	Ongoing
Operations, maintenance, costs, and risks	Concerns about project appearance and possible requirement for large number of overhead wires	NNC communicated that because of distance from community, the visual impact of the Project will remain minor	Resolved
Operations, maintenance, costs, and risks	Concerns about limited construction resources in community	NNC communicated that necessary construction materials and resources, not currently available will be brought into the community	Resolved
Operations, maintenance, costs, and risks	Questions about the costs of maintenance	NNC communicated turbines have not yet been sourced and that maintenance costs would depend on the model Maintenance costs will be the responsibility of the Project owner	Resolved
Operations, maintenance, costs, and risks	Questions about the types of batteries used for the Project and whether molten batteries would be best	NNC communicated batteries have not yet been sourced	Ongoing
Regulatory process and community engagement	Concerns about signing into meetings and how information will be used	NNC communicated that to fulfill project screening requirements consultation records are shared with NPC/NIRB including meeting minutes and participant names	Resolved

Issue / concern type	Issue / concern summary	NNC response	Status
Regulatory process and community engagement	Lack of awareness of NIRB and its role	NNC shared more information on NIRB following the meeting	Resolved
Regulatory process and community engagement	Interest in understanding project authorizations	NNC communicated that the Project must meet the regulatory authority requirements of the federal government In addition to federal requirements, the Project will also need to meet territorial and municipal requirements. Also, the Canadian electrical code and Canadian Standards Association	Resolved
Regulatory process and community engagement	Lack of awareness of Sanikiluaq Development Corporation (SDC) and its role	NNC communicated that it was reluctant to speak on behalf of SDC but indicated intention to work with the community to make decisions and build partnerships SDC has since dissolved	Resolved
Regulatory process and community engagement	Concerns about lack of consultation; interest in ongoing engagement on the Project	Proponent is developing a communications plan that will include more frequent virtual connections as well as more frequent travel to/presence in the community	Ongoing
Regulatory process and community engagement	Recommendation for translated, easily understood documents to enable community to better identify risks and opportunities	Proponent is developing a communications plan	Ongoing
Regulatory process and community engagement	Recommendation to use various communication methods to mitigate internet connection issues	Proponent is developing a communications plan	Ongoing
Regulatory process and community engagement	Interest in understanding Project benefits	Proponent is developing a communications plan	Ongoing

Issue / concern type	Issue / concern summary	NNC response	Status
Regulatory process and community engagement	Recommendation for community liaison to ensure Project success	Proponent is exploring opportunities to support hiring a community liaison	Ongoing
Safety and site security	Safety concerns - children, wildlife near equipment	NNC communicated that it will be open to exploring possible options, including educating community on clean energy NNC is exploring measures to ensure public and wildlife protection	Ongoing
Safety and site security	Security concerns - vandalism	NNC communicated that it will be open to exploring possible options, including educating community on clean energy NNC will also explore the potential for security cameras to be installed on the Project site	Ongoing
Safety and site security	Emergency response procedures need to be established	NNC communicated that it will have a health and safety and an emergency response plan	Resolved
Safety and site security	Concerns about possible capacity issues in health centre created by additional workers	NNC will ensure all Workers' Safety Compensation Commission (WSCC) requirements are met	Resolved
Safety and site security	Concerns about potential diesel/fuel spills or leaks	NNC communicated potential spills will be continuously monitored throughout Project construction and operation	Resolved

4.4 Planned Future Engagement Activities

During more recent in-community engagements NNC heard that more frequent and easily accessible communication on the Project is desired. NNC has since developed a formal Communications Plan to support the next phases of the Project consultation and facilitate regular information sharing. To respond to the community desires for more frequent and easily accessible information and updates on the Project, the Project team will ensure at least one public engagement session annually, quarterly presentations (both in-person and virtually) to the Hamlet Council and the HTA, and monthly project update reports to the SAO. Additionally, the Project team will engage youth through contests and development of curriculum content. The full Sanikiluaq Wind and BESS Project Stakeholder Engagement Strategy is available in Appendix H.

5.0 Baseline Conditions and Impact Assessment

A biophysical impact assessment and a socio-economic impact assessment were conducted by Wood and Odonaterra respectively.

Between December 2019 and December 2021 Wood reviewed existing information, conducted engagements, and performed field surveys. This work informed the baseline conditions assessment, selection of appropriate Valued Ecosystem Components (VECs), and assessment of the VECs to predict potential positive and negative impacts the Project may have on the biophysical environment. Mitigation measures to compensate for the potential residual impacts have also been identified. Due to the COVID-19 pandemic, surveyors were not able to travel to the Project site to conduct the bird breeding surveys. These will be conducted in June/July 2022 and a supplementary report will be issued in August 2022.

Between September 2021 and March 2022, Odonaterra reviewed existing project information including previous project engagement notes and conducted virtual and in-person engagements with various community members and project stakeholders to assess the potential positive and negative impacts the Project may have on the socio-economic environment. A flexible engagement approach was implemented due to constraints such as COVID-19 public health measures and limited accommodations in Sanikiluaq which prevented traditional engagement approaches such as larger public meetings and multiple in-person site visits.

Sections 5.2 and 5.3 provide a summary of the biophysical impact assessment and the socio-economic impact assessment respectively. Full biophysical and socio-economic baseline conditions and impact assessments are provided in Appendix B and Appendix C respectively.

5.1 Baseline Conditions

5.1.1 Biophysical Environment Baseline Conditions

Section 4 of the Sanikiluaq Wind Energy Project Biophysical Impact Assessment Report found in Appendix B describes the environmental baseline conditions in Sanikiluaq, called the Environmental Setting. The baseline categories that were assessed include:

- Geophysical Environment
- Biological Environment
- Atmospheric Environment

5.1.2 Socio-Economic Baseline Conditions

Baseline conditions were collected to help determine the socio-economic background of Sanikiluaq residents and help to further inform potential impacts resulting from the Project.

The full baseline socio-economic condition assessment is provided in Section 4 of the Sanikiluaq Wind Energy Project Socio-Economic Impact Assessment Report in Appendix C. The baseline categories that were assessed include:

- Population, Age and Gender Characteristics
- Governance and Leadership
- Economic Development and Opportunities
- Employment and Income
- Education and Training
- Contracting and Business Opportunities
- Traditional Activities
- Non-Traditional Land and Resources Use
- Cultural, Archaeological and Paleontological Resources
- Individual and Community Wellness
- Community Infrastructure and Public Service

5.2 Summary of Biophysical Impacts

When an adverse environmental effect was identified, mitigation was proposed. Where possible, mitigation measures will be incorporated into the Project design and implementation to eliminate or reduce potential adverse effects. Mitigation at the receptor end was considered if avoidance and mitigation at the source of the effect was deemed not feasible or not sufficiently effective. The importance of effects after mitigation measures (residual effects) were determined using the definitions of level of impact established in the Environmental Impact Statement Guidelines for Screenings of Inland Wind Farms under the Canadian Environmental Assessment Act Guidelines (NRCan 2003) as shown by Wood and in Table 7 below. The significance of the residual effects was evaluated for each VEC, as seen in Table 8 (construction phase) and Table 9 (operations phase), along with the VECs, impacts, and mitigation measures for the Project.

Table 7: Levels of Impact

Level	Definition
High	Potential impact could threaten sustainability of the resource and should be considered a management concern. Research, monitoring and/or recovery initiatives should be considered.
Medium	Potential impact could result in a decline in resource to lower-than-baseline but stable levels in the Study Area after project closure and into the foreseeable future. Regional

Level	Definition
	management actions such as research, monitoring and/or recovery initiatives may be required.
Low	Potential impact may result in slight decline in resource in Study Area during life of the project. Regional management actions such as research, monitoring and/or recovery initiatives would not normally be required.
Minimal	Potential impact may result in slight decline in resource in Study Area during construction phase but should return to baseline levels.

Table 8: Summary of Biophysical Impacts - Construction Phase

Project Activity	Valued Environmental Component	Impact	Mitigation Measures	Residual Environmental Effects	Level of Residual Impact
Project related traffic and equipment operation	Air Quality	• Formation of dust and exhaust fumes • Dust created from soil depleted of vegetation and from gravel access roads	• If possible, schedule activities when weather conditions (wind) are favourable • Equipment should be kept in good running order • Use water as dust suppressant • The exits of the construction sites will be equipped with effective dirt traps • Impose and enforce speed limits on access roads • Do not load trucks with soil above the freeboard • Minimize drop heights when loading trucks • During operation allow vegetation disturbed in the lay down areas to grow back	No residual effects expected	Minimal
	Birds	• Mortality due to vehicle collisions • Avoidance and changes to movement caused by noise, visual impacts, and human presence • Disturbance of normal behaviour during foraging and breeding • Habitat degradation from invasive species	• Vehicles will yield right-of-way to wildlife • Do not harass or disturb wildlife • All personnel will report notable wildlife sightings (dangerous, injured, dead, or SAR) to the Construction Manager • The Construction Manager will initiate any reasonable action to reduce the chance of disruption or injury to reported wildlife • Should disruption or injury to wildlife occur, the Construction Manager will contact the on-call Conservation Officer in Sanikiluaq at (867) 266-8098	No residual effects expected	Minimal

Project Activity	Valued Environmental Component	Impact	Mitigation Measures	Residual Environmental Effects	Level of Residual Impact
		• Respiratory health effects from dust	• If encountered, dead animals will be removed and disposed of as soon as possible • Handling of bird carcasses will be conducted in accordance with Migratory Birds Convention Act (MBCA) scientific permits • If found, carcasses of Species at Risk Act (SARA)-listed species will be sent to the Edmonton Canadian Wildlife Services (CWS) office with suitable permitting as advised by CWS • If an injured or dead bird is encountered, personnel will record the following information: date and time, injury sustained, cause of injury, and species • Native plant regeneration will be promoted to allow natural revegetation • Inspect and clean imported equipment for invasive species • Inspect borrow areas for presence of invasive species prior to use • Dust abatement and prevention measures shall be implemented		

Project Activity	Valued Environmental Component	Impact	Mitigation Measures	Residual Environmental Effects	Level of Residual Impact
	Land Use Local Economy Local Traffic Public Health and Safety (including Noise)	• Limits to land use • Positive impact: work, income • Increased traffic including possible damage to roads and interference with traffic flows • Damage or injury as a result of traffic accidents • Noise disturbance	• Complaint registry to be developed for traffic, noise, and other Project concerns • Limit traffic to regular working hours • The routing of truck traffic through the hamlet will be controlled during all activities • Repairs to public roads to be implemented should the need arise • All Project vehicles will be properly maintained and muffled to reduce noise emissions • The Contractor will make daily inspections of tires, brakes, lights, mirrors, fluids, hydraulic and fuel systems on machinery, and leaks will be repaired immediately. If parts are not immediately available, equipment will be removed from service until repaired. All leaks will be reported to the GN Department of Environment and the Canadian Coast Guard at 1-800-565-1633 • Where feasible a protective buffer zone will be established for wetlands and watercourses where construction equipment will not enter • Erosion control measures are to be implemented and maintained • All staging areas will be located 100 m outside any wetland/watercourse	No residual effects expected	Minimal

Project Activity	Valued Environmental Component	Impact	Mitigation Measures	Residual Environmental Effects	Level of Residual Impact
Clearing, Grubbing and Excavation	Air Quality	• Formation of dust and exhaust fumes	• Minimize air emissions through proper planning • All heavy construction equipment will be equipped to reduce air emissions • Water will be applied as a dust suppressant as needed to prevent fugitive emissions • The speed limit will be reduced • Idling of vehicles will be limited • Do not load trucks with soil above the freeboard • Minimize drop heights when loading trucks • Disturbed soil will be stabilized as soon as possible	No significant effects expected	Minimal
	Birds Terrestrial Fauna	• Potential mortality of adults, young and eggs from collisions, or nest destruction • Killing of individuals during land clearing activities • Avoidance and changes to migratory movement caused by noise, visual impacts, and human presence • Loss, fragmentation, or degradation of breeding,	• See measures for project related traffic and equipment operation • Clearing and grubbing will be restricted to areas necessary to carry out the Project • A nest search will be conducted prior to clearing and grubbing activities occurring within the regional avian nesting period (1 May to 15 August). Any active nests will be protected with a species-appropriate buffer until the young have vacated the nest. For species that re-use nests for multiple years (e.g., some raptors), vacant nests will be relocated outside the clearing/grubbing zone.	No significant effects expected	Minimal

Project Activity	Valued Environmental Component	Impact	Mitigation Measures	Residual Environmental Effects	Level of Residual Impact
		feeding, and resting habitat • Respiratory health effects from dust • Changes to the water regime by erosion and runoff • Habitat degradation by invasive species • Exposure to toxic chemicals	• Native plant regeneration will be promoted in any areas that are cleared but not built upon (i.e., roadside ditches, temporary laydown areas, etc.) • Use native plants or no vegetation at all around turbines • Materials cleared from the sites (brush, soil, etc.) should not be dumped into otherwise unaffected land • All construction equipment should be in good working order • Keep work area clean of food scraps and garbage and transport waste to an approved landfill on a regular basis • Maintain appropriate spill response equipment • Vehicles will yield the right-of-way to wildlife • Do not harass or disturb wildlife • Alterations to existing natural drainage patterns will be minimized • For construction activities required during the sensitive nesting season the following measures will be implemented: • Clearing activities will be scheduled in consideration of critical habitat features (e.g., wetland areas) identified during the pre-construction field survey		

Project Activity	Valued Environmental Component	Impact	Mitigation Measures	Residual Environmental Effects	Level of Residual Impact
			• The proponent will instruct the management team and contractors on the MBCA, the importance of habitat, the significance of the nesting period, and measures to be implemented to minimize any disturbance to birds/nests • Construction workers will be informed of the potential for SAR to be present and will be instructed on measures to take if a SAR is observed • If a migratory bird nest is discovered within the active work zone, work in the area should cease until CWS is contacted for guidance. A buffer of an appropriate size may be required until young have fledged from the area		
	Fish and Fish Habitat Surface Water Quality Wetland	• Impacts to water flow and drainage within local watershed boundaries • Loss of fish habitat • Reduced species diversity • Degradation of water quality and watershed health	• Environmentally sensitive areas (i.e., wetlands and watercourse) will be staked out prior to work operations so that these areas are protected • A buffer zone will be established on each side of a wetland/watercourse • Activity to be limited within watercourse and wetland buffer zones	No significant effects expected	Minimal

Project Activity	Valued Environmental Component	Impact	Mitigation Measures	Residual Environmental Effects	Level of Residual Impact
		• Impacts to potable water supply	• Implement erosion/sedimentation mitigation measures of wetlands/watercourses when necessary • No waste or debris into wetlands/watercourses or buffer zone • No heavy equipment or motorized vehicles will enter wetlands/watercourses • Work to be completed in shortest duration possible • The on-site Petroleum, Oil, Lubricants (POL) storage container shall be located on level terrain, at least 100 m from any water body or wetland • No POL storage will occur in sensitive areas (e.g., near wetlands, watercourses, or wells) or associated buffer zone • Fuelling must be done at least 50 m from a wetland or waterbody • Servicing of equipment will not be allowed within 100 m of a wetland, watercourse, or drainage ditch • Culverts shall be appropriately sized to accommodate peak flow volumes and maintain aquatic connectivity of watercourses • Due to the nature of the bedrock, bridges should be placed to protect aquatic habitat where culverts are not a viable option		

Project Activity	Valued Environmental Component	Impact	Mitigation Measures	Residual Environmental Effects	Level of Residual Impact
			• Standard methodology and construction practices should be followed for culvert/bridge installations to mitigate potential impacts • No chemicals will be used to wash equipment • Equipment wash water will be diverted into a settling pond for control and treatment, and effluent will be treated and recycled for reuse		
Building Construction and Turbine Assembly	Air Quality Birds Terrestrial Fauna Fish and Fish Habitat Surface Water Wetland Land Use Local Economy	• Formation of dust and exhaust fumes • Avoidance and changes to migratory movement cause by noise, visual impacts, and human presence • Reduction of quality and quantity of habitat • Loss, fragmentation, or degradation of breeding, feeding, and resting habitat • Changes to the water regime by erosion and runoff • Habitat degradation by invasive species • Impacts to water flow and drainage	• See mitigation measures for clearing, grubbing and excavation • Minimize area disturbed • Use access roads for equipment movement • Place and maintain proper erosion/sedimentation measures • During foundation laying, form oil may be used sparingly to allow forms to separate from concrete following curing • Washing of chutes on-site will occur at a designated location • No chemicals will be used in the washing of concrete trucks or forms on-site • Poles will be placed no closer than 15 m from any watercourse, and wetlands will be avoided where possible. If a watercourse or wetland cannot be	No significant effects expected	Minimal

Project Activity	Valued Environmental Component	Impact	Mitigation Measures	Residual Environmental Effects	Level of Residual Impact
		• Reduced species diversity • Toxic effects from chemicals substances • Limited use of land • Positive impact: work, income, taxes	spanned, untreated poles (wood, fibreglass, or steel) will be used		
Accidents and Malfunctions	Air Quality Birds Terrestrial Fauna Fish and Fish Habitat Surface Water Local Traffic	• Potential hydrocarbon contamination of soil and water • Potential adverse effects to flora and fauna as a result of exposure to toxic substances • Damage or injury as a result of traffic accidents	• Replace hazardous materials with less harmful ones when possible • Incorporate preventative and response measures into construction practices • Provide environmental awareness training • Maintain appropriate spill response equipment • Report all spills to applicable authorities, including the GN 24-hour spill report line at 1-867-920-8130 • Inspect equipment to ensure equipment and vehicles have no obvious leaks • Do not refuel vehicles on-site • Store all hazardous materials outside of a 30 m buffer around wetlands and watercourses • Maintain and update an inventory of hazardous materials on-site • Train workers to adhere to safe driving rules in order to prevent traffic accidents	No significant effects expected	Minimal

Project Activity	Valued Environmental Component	Impact	Mitigation Measures	Residual Environmental Effects	Level of Residual Impact
			• Public notification of an increase in construction traffic • Report all incidents of injured or dead wildlife to the on-call Conservation Officer in Sanikiluaq at 1-867-266-8098		

Table 9: Summary of Biophysical Impacts - Operation Phase

Project Activities	Environmental Components Subject to Impacts	Impacts	Mitigation Measures	Residual Environmental Effects	Level of Residual Impacts
Wind Turbine Operation and Maintenance	Birds	• Direct mortality or injury from collisions with turbines • Disturbance and avoidance of potential breeding habitat due to human presence • Noise may interfere with feeding, migration, and breeding • Interference with movement due to barrier effect (avoidance of turbines) • Fire	• Control visits to the area by both workers and public • Keep workers from entering undisturbed habitat areas where no work is done • Encourage public to refrain from visiting access roads during breeding season (early May – mid-August) • Prevent perching and nesting on turbines • Do not create areas of high prey density during habitat restoration and maintenance • Use native plants or no vegetation at all around turbines • Use the minimum allowable amount of lighting (i.e., minimum intensity and number of flashes per minute), using white colour aviation lighting in accordance with Transport Canada guidelines • Use LED lights, as they emit no light during the “off-phase” of the flash • Avoid or shield strong lights such as sodium vapour lights • Implement post-construction monitoring program	Reduction in population density for birds disturbed by turbines (birds can return to preconstruction levels when wind farm is decommissioned); Limited mortality and injury of birds due to collisions; None expected for: barrier and fire	Low

Project Activities	Environmental Components Subject to Impacts	Impacts	Mitigation Measures	Residual Environmental Effects	Level of Residual Impacts
	Visual Landscape	• Turbines in the natural landscape • Strong steady lighting may cause "skyglow" • Glare • Negative impressions caused by "untidy" turbine arrangement, garbage, leaks from nacelles, idle turbines or turbines with parts missing	• Create aesthetic balance in the design • Use light grey color, non-reflective, not shiny steel • Arrange turbines in clusters • Minimize lighting on the turbines • Minimize Project footprint, implement erosion control and dust abatement • Repair turbines as soon as it is safe and practicable to do so • Clean turbines • Remove excess materials and litter • Avoid posting commercial signs	Residual effects are likely despite mitigation measures	Low
Road and Power Lines Operation and Maintenance	Birds Terrestrial Fauna	• Direct mortality or injury from collisions with overhead power lines • Electrocution from powerlines • Disturbance and avoidance of potential breeding habitat due to human presence • Noise may interfere with feeding, migration, and breeding	• See mitigation measures for wind turbine operation	Small number of mortalities potentially every year for the lifetime of the windfarm	Low

Project Activities	Environmental Components Subject to Impacts	Impacts	Mitigation Measures	Residual Environmental Effects	Level of Residual Impacts
	Fish and Fish Habitat Surface Water Quality	• Impacts to water flow and drainage • Loss of fish habitat • Toxic effects from chemicals substances	• See mitigation measures for clearing, grubbing and excavation in Construction Phase	Impacts are expected to be low for all factors	Low
Accidents and Malfunctions	Air Quality Birds Terrestrial Fauna Fish and Fish Habitat Surface Water Local Traffic	• Potential hydrocarbon contamination of soil and water • Potential adverse effects to flora and fauna as a result of exposure to toxic substances • Icing and breakage • Fire • Damage or injury as a result of traffic accidents	• The mitigation for spills and traffic accidents for the construction phase is sufficient for the operation phase • Workers will be trained on the hazards of ice build up on tall structures • Warning signals or flags should be set up to warn of potential ice issues • If those measures are not heeded other options must be investigated • A safety set-back of at least 290 m will mitigate most effects of breakage • Staff should wear protective equipment when on-site	No significant effects expected	Minimal

5.3 Summary of Socio-Economic Impacts

The NIRB recommended Valued Socio-Economic Components (VSECs) were used during the baseline assessment, however the final VSECs were determined based on final findings from the baseline research, engagement with Sanikiluaq residents, landowners, and stakeholders, the professional judgment of the socio-economic assessment team, and publications from regulatory authorities.

The VSECs that were determined to potentially be impacted by Project activities, either in the construction, operation, or decommissioning phases, were brought forward into the impact assessment. Those that had no potential for interactions with Project activities in any phase were screened out of the impact assessment.

Mitigation measures for adverse impacts and enhancement measures for positive impacts were established. The resulting residual effects after the mitigation/enhancements were applied were then determined. For any adverse residual effect, the following criteria were used in determining the significance of the residual effect.

- Direction of the residual effect (positive, neutral, and negative)
- Geographic extent
- Temporal context
- Magnitude
- Likelihood
- Confidence

The significance of each impact was then determined to be either significant or not significant. A residual socio-economic environmental effect is considered significant if the effect is predicted to be:

- high magnitude, high probability, reversible and regional, territorial or national in extent and cannot be technically or economically mitigated; or
- high magnitude, high probability, long-term or permanent reversibility, within any spatial boundary and cannot be technically or economically mitigated.

Sections 5 and 6 of the Odonaterra Socio-Economic Impact Assessment report in Appendix C provides in detail the methodology of the impact assessment as well as the findings. Table 10 below, provides a summary of the socio-economic impact assessment results.

Table 10: Summary of Socio-Economic Impacts

VSEC	Indicator	Potential Effect	Mitigation/Enhancement Measure	Potential Residual Effect	Significance
Economic Development and Opportunities	Energy Affordability and Commercial Fisheries	The Community Enhancement Fund can be used for a variety of initiatives desired by the community, such as: • Electricity subsidy for Sanikiluaq residents, businesses, and the Municipality of Sanikiluaq; or, • Increase opportunity for community-led infrastructure development through the community enhancement fund.	If desired by committee, provide support and guidance on how the fund could be used to provide electricity subsidies.	Energy related cost savings to Sanikiluaq residents that can help support economic growth.	N/A – effects deemed positive
	Infrastructure Development		If desired by committee, provide support and guidance on how the fund could be used to support infrastructure projects.	Increased opportunities for local infrastructure projects helping to drive the economy.	N/A – effects deemed positive
Business, employment and income	Business Contracts and Potential for New Business Development	Increased contracting and procurement opportunities.	Prioritize hiring local contractors and utilizing local businesses. Ensure contracting and procurement opportunities	Increased local contracting and procurement opportunities.	N/A – effects deemed positive

VSEC	Indicator	Potential Effect	Mitigation/Enhancement Measure	Potential Residual Effect	Significance
			are communicated to Sanikiluaq residents.		
		Increased business in gravel extraction from increased Project demand.	Communicate gravel requirements to the Municipality of Sanikiluaq six months prior to construction start to ensure adequate supply.	Increased business and contracting opportunities in the civil works sector.	N/A – effects deemed positive
	Employment	Increased employment from direct, indirect, and induced employment in Sanikiluaq (up to 26 local employees for the construction phase and 1-3 for the operation phase).	Ensure employment opportunities and the necessary training or contracting requirements are communicated to Sanikiluaq residents. Collaborate with local contractors to host a workshop to recruit local workers. Ensure contractors prioritize hiring local residents to optimize the benefits of local income and spending.	Increased employment opportunities in Sanikiluaq.	N/A – effects deemed positive
	Income Levels	Personal spending by Project workers during construction and operation	No mitigation measures identified.	Increased personal spending by Project workers and associated increased opportunities for businesses.	N/A – effects deemed positive

VSEC	Indicator	Potential Effect	Mitigation/Enhancement Measure	Potential Residual Effect	Significance
Education and Training	Skills training Programs	Increased local training opportunities	Provide training opportunities for a local long-term operator(s). Ensure contractor(s) provides on the job training if required during construction phase.	Enhancement of skills training for Sanikiluaq residents.	N/A – effects deemed positive
Traditional Activities	Hunting and Egg Gathering	Reduced availability of wildlife/eggs due to noise.	Turbine noise levels will be a factor in the selection criteria for turbines.	Reduced availability of wildlife/eggs.	Not significant
		Degradation of harvesting experience for wildlife/eggs due to visual effect/noise.	Turbine noise levels will be a factor in the selection criteria for turbines.	Avoidance of harvesting areas due to visual and noise effects.	Not significant
		Reduced availability of wildlife/eggs due to habitat destruction from clearing/grubbing.	Project team monitoring of construction activities for protection of wildlife and halting of activities if at risk of environmental disturbance. Limiting activities to Project footprint where possible.	Habitat loss due to clearing and grubbing.	Not significant
		Reduced availability of wildlife/eggs due to barrier effect, blade strikes.	Limiting activities to Project footprint where possible.	Reduced availability of wildlife/eggs.	Not significant
	Fishing	Destruction of freshwater fish habitat from spills, infilling, and sediment during construction.	Project team monitoring of construction activities for protection of wildlife and halting of activities if at risk	Loss of fish habitat during construction activities.	Not significant

VSEC	Indicator	Potential Effect	Mitigation/Enhancement Measure	Potential Residual Effect	Significance
			of environmental disturbance (ie. spill). Employ best practice techniques for culverts at water bodies/water crossings. Inclusion of sediment barriers at water crossings/vulnerable waterbodies.		
		Reduced availability/quality of fish due to spills.	Project team monitoring of construction activities for protection of wildlife and halting of activities if at risk of environmental disturbance (ie. spill). Implementation of spill prevention measures (barriers, emergency spill kits) at water crossings. Develop and implement spill prevention and response plan.	Reduced fish availability in the event of a spill during construction.	Not significant
		Reduced availability of fish due to destruction of habitat.	Project team monitoring of construction activities for protection of wildlife and halting of activities if at risk of environmental disturbance.	Fish habitat destruction and decreased availability during construction.	Not significant

VSEC	Indicator	Potential Effect	Mitigation/Enhancement Measure	Potential Residual Effect	Significance
			Silt/sediment barriers to protect sensitive areas from runoff.		
	Plants, Berries and Medicines	Reduced access to harvesting areas during road construction.	Provide notice to community of when access trail will be closed for construction, and provide direction on safe alternative passage to harvesting areas by four-wheeler, snow machine etc. Encourage harvesting in areas that may be affected by road closure prior to construction activities.	Reduced access to harvesting areas during road construction. Improved access during operations.	Not significant
		Degradation of plants/berries from dust/emissions.	Encourage harvesting of areas that may be affected by dust/emissions prior to construction activities. Encourage harvesting prior to construction activities to avoid contamination from dust/emissions. Identify and protect sensitive/high productivity areas.	Destruction of plants and berries.	Not significant
		Noise from turbines degrading harvesting experience.	Turbine noise levels will be a factor in the selection criteria for turbines.	Avoidance of harvesting areas.	Not significant
		Improved access to harvesting areas with upgraded road.	None identified.	Improved access to harvesting areas	N/A - effects deemed positive

VSEC	Indicator	Potential Effect	Mitigation/Enhancement Measure	Potential Residual Effect	Significance
				with upgraded road.	
		Destruction of harvesting areas within Project footprint.	Restrict activities to Project footprint. Identification and protection of sensitive/high productivity areas.	Loss of harvesting areas.	Not significant
Cultural, Archaeological, Paleontological Resources	Cultural, Archaeological, Paleontological Resources	Destruction of/damage to undiscovered archeological artifacts of cultural importance.	Project team monitoring of construction activities for protection of archaeological resources, and halting activities if at risk of disturbance.	Destruction of/damage to archeological artifacts of cultural importance.	Not significant
Individual and Community Wellness	Health Services	Demand on, and capacity of, Sanikiluaq Health Centre.	Share health and safety plans with local Health Centre. Ensure strict adherence to all WSCC requirements when on site. Consult with Sanikiluaq HTA on if there is a concern of polar bears in the area and hire a bear monitor if needed.	Increased demand on Sanikiluaq Health Centre.	Not significant
		Demand on, and capacity of, emergency medical response services.	Consult with Sanikiluaq HTA on if there is a concern of polar bears in the area and hire a bear monitor if needed.	Increased demand on emergency medical response services.	Not significant

VSEC	Indicator	Potential Effect	Mitigation/Enhancement Measure	Potential Residual Effect	Significance
			Provide training to the workforce on safety, specifically contextual to the climate and weather conditions during project orientation. Ensure strict adherence to all WSCC requirements when on site.		
	Health and Well-being	Dust and exhaust emitted from vehicles and heavy equipment during Project construction.	Adhere to speed limits and restrict idling, when possible, of construction vehicles. Have a contractual obligation for contractor(s) to employ best practices to reduce dust such as not overloading trucks and minimizing drop height of trucks during construction. Require contractors to provide safety equipment to construction workers including masks when working in high-dust and emission zones. Limit construction vehicles from passing through high-	Sensory disturbance for local residents and land users (air emissions, noise and visual).	Not significant

VSEC	Indicator	Potential Effect	Mitigation/Enhancement Measure	Potential Residual Effect	Significance
			populated locations, when possible. Follow contractor's Health and Safety Plan.		
		Increased spread of disease, including cold/flu, COVID-19 and/or Sexually Transmitted Infections (STIs)/Sexually Transmitted Diseases (STDs).	Develop a Code of Conduct for employees and contractors that provides guidance and policies on appropriate and inappropriate worker behaviour and community interactions. Enforce and monitor safety measures taken against the spread of COVID-19 as recommended and regularly updated by Health Canada	Increased contraction of infections and diseases within the community.	Not significant
		Increased drug and alcohol use in the community as a result of increased substance imports by non-local workers.	Ensure Project contractor(s) has, and enforces, a zero-tolerance policy for drugs and alcohol, while in Sanikiluaq. Develop a Code of Conduct for employees and contractors that provides guidance and policies on appropriate and inappropriate worker	Increased rate of substance abuse among community members.	Not significant

VSEC	Indicator	Potential Effect	Mitigation/Enhancement Measure	Potential Residual Effect	Significance
			behaviour and community interactions.		
	Gender/racial Equity and language	Barriers to employment.	Provide and promote equal opportunity hiring policies. Ensure Code of Conducts, policies and all health and safety documentation and signage are dual language.	Barrier to women/racial minorities applying for employment opportunities. Language barriers between local and non-local workers.	Not significant
Community Infrastructure and Public Service	Drinking water	Contamination of drinking water from leaks, spills during construction.	Project team monitoring of construction activities for environmental disturbance (i.e., spills). Develop and implement spill prevention and response plan. Implementation of spill barriers at water crossings.	Impacts to drinking water.	Not significant
		Contamination from oil leaks from turbine operation.	Project operator monitoring during project operations for leaks.		
	Cultural Services	Increased energy generation for cultural services.	No enhancement measures identified.	Generation of energy could benefit cultural facilities in the community.	Not significant

VSEC	Indicator	Potential Effect	Mitigation/Enhancement Measure	Potential Residual Effect	Significance
	Road Access	Restriction of land access from existing trail during construction activities.	Provide notice to community of when access trail will be closed for construction. Encourage hunting in areas that may be affected by road closure prior to construction activities.	Restriction of land access due to construction activities.	Not significant
		Improved access adds to existing road network in the community.	No enhancement measures identified.	Improved access adds to existing road network in the community.	Not significant
	Energy Reliability / Resilience	Positive impact on community energy reliability and resiliency due to expanding power generation source to wind.	No enhancement measures identified.	Improved energy reliability and resiliency	Not significant
	Housing and Temporary Accommodations	Increased demands for temporary housing and hotel accommodations could stretch capacity of current temporary accommodation availability.	House workers at available hotels. Utilize existing available temporary work camp housing if/when it becomes available (for example, current temporary municipal offices). Establish temporary accommodations to house the Project workforce.	Housing pressure from non-local workers is expected be neutral.	Not significant

VSEC	Indicator	Potential Effect	Mitigation/Enhancement Measure	Potential Residual Effect	Significance
	Household Affordability	Reduction of electricity costs for households in Sanikiluaq as a result of the community enhancement fund.	If desired by committee, provide support and guidance on how the fund could be used to provide electricity subsidies.	Reduction of household energy costs.	Not significant
	Safety, Crime, and Security	Demand for emergency, protective and social services during construction.	Prepare a Project Emergency Response Plan that covers the Project construction phase. Share Health and Safety and Emergency Response Plans with local Health Centre. Ensure strict adherence to all WSCC requirements when on site.	Increased demand on emergency, protective, and social services during construction.	Not significant
		Vandalism and possible destruction of wind turbines, particularly with individuals using wind turbines for target practice.	Education for youth from Elders, teachers, community liaison, parents. Install security camera near wind turbines to monitor vandalism activity.	Vandalism and possible destruction of wind turbines.	Not significant

6.0 Cumulative Impacts

Cumulative impacts were assessed to determine the effect of the Project, in conjunction with other past, present, and future foreseeable activities, that could impact the VECs or VSECs.

The full cumulative impact assessment on VECs is found in Section 6 of the Wood Biophysical Impact Assessment Report provided in Appendix B.

The full cumulative impact assessment on VSECs including methodology is found in Section 7 of the Socio-Economic Impact Assessment in Appendix C.

6.1 Summary of Biophysical Cumulative Impacts

It has been concluded by Wood that there are no known approved or under construction undertakings in the Project area that are expected to act in combination with the biophysical effects of the proposed Project.

The potential effects from other undertaking in the area within context of the Project could include the following:

- Atmospheric emissions from land uses and road network, including dust during construction activities, and total suspended particles, carbon monoxide, carbon dioxide, nitrogen dioxide, sulphur dioxide, and volatile organic compounds emitted as part of equipment and vehicle exhaust, with noise emissions from construction and operation of existing and future undertaking;
- Reduced surface water quality from land uses and linear developments (*e.g.,* sedimentation, spills, increased stormwater runoff), which could also affect fish and fish habitat; and
- Direct loss of flora, habitat alterations from changes in local hydrology, water quality, introduction of non-native plants, and increased fragmentation of terrestrial environment.

6.2 Summary of Socio-Economic Cumulative Impacts

There were several projects and activities considered in the socio-economic cumulative impact assessment. It was determined that only one project, the construction of the NHC housing office, may cause a potential cumulative impact on the community wellness VSEC.

The results of the socio-economic cumulative effects assessment are that there could be negative residual impacts due to a short-term peak in non-local construction workers residing in Sanikiluaq during overlapping construction of the Project and the NHC staff housing office.

Negative impacts may be felt in in all community wellness VSEC indicators with the exception of substance abuse which is considered neutral. All potential cumulative residual effects were

considered not significant. The confidence in the assessment is moderate and therefore the potential cumulative impacts, particularly in the first year of construction, will be monitored in a socio-economic management plan. Table 11 summarizes these results.

Table 11: Potential Cumulative Residual Effect Significance Ratings

Potential Cumulative Residual Effect	Significance
Increased demand on health and emergency response services	Not significant
Sensory disturbance for local residents and land users (air emissions, noise and visual)	Not significant
Increased contraction of infections and diseases within the community	Not significant
Increased rate of substance abuse among community members	Not significant
Barrier to women/racial minorities applying for employment opportunities	Not significant

7.0 Other Potential Impacts

7.1 Effects of the Environment on the Project

Several environmental factors could have adverse effects on the Project, especially extreme weather events and global climate change in the Arctic region. These effects have been considered during the Project design phase. The environmental factors considered and integrated into the design include extreme weather, climate change and resulting permafrost degradation.

High winds, extreme temperatures, and icing on blades all have the potential to affect the operational performance of wind turbines. Cold climate turbine technology will be a major consideration in the selection of the turbine model. There is potential for permafrost degradation through the warming climate which could impact the foundations of the battery storage systems and turbines. The design of these foundations has both considered and mitigated against movements.

The effects of the environment on the Project are further discussed in Section 7 of the Biophysical Impact Assessment Report in Appendix B.

7.2 Transboundary Impacts

The biophysical impact assessment determined that there were no residual effects that extended beyond the local geographic extent, defined as the Hamlet of Sanikiluaq, with the exception of the potential impact on migratory bird populations that migrate through the Project area. This could extend to other parts of the territory, or throughout the country depending on the migratory path of the bird species. This will be confirmed following the findings of the migratory bird survey to be completed in August 2022.

The socio-economic impact assessment determined that there were no residual effects that extended beyond the local geographic extent, defined as the Hamlet of Sanikiluaq, except for the potential reduction of household energy costs which may have a Territorial geographic extent. There were no residual effects that extended to a National geographic extent and therefore no socio-economic transboundary impacts are expected.

8.0 Sustainability Assessment

To assess the sustainability of the Project, each VSEC was evaluated against community identified sustainability goals to determine if and how the Project contributes to each sustainability goal. The sustainability goals were identified from several community reports including:

- Infrastructure for a Sustainable Sanikiluaq, 2011 Aarluk Consulting Inc
- Sanikiluaq Community Plan, 2014
- Sanikiluaq Community Economic Development Plan, 2019

The below table is a summary of the sustainability assessment. A detailed sustainability assessment is available in Section 8 of the Sanikiluaq Wind Energy Project Socio-Economic Impact Assessment Report. The assessment demonstrates how social, economic, cultural, and environmental sustainability are considered through the Project's development.

Table 12: Sustainability Assessment Summary

VSEC or VEC	Project's Contribution to Achieving Sustainability
VSEC: Economic Development and Opportunities	The Project provides renewable energy to power the local economy and achieves present and future economic development goals by providing a clean, stable energy supply. The Project will contribute to municipal revenues through a community benefit fund which may be used to fund other economic development initiatives. The Project reduces the need for outside diesel fuel which is costly and subject to market price fluctuations.
VSEC: Business, Employment and Income	The Project creates new job opportunities within the community, and, through the community benefit fund creates sustainable revenues for the Municipality of Sanikiluaq. The Project provides a clean, stable energy supply that can power small businesses and generate revenues that can support community businesses.
VSEC: Education and Training	Training will be available for local residents so that they are able to independently operate and maintain Project infrastructure.
VSEC: Cultural, Archeological and Paleontological Resources	The Project location was selected in accordance with Nunavut Planning Commission's 2013 Sanikiluaq Land Use Planning Consultation Report to assure that the site location did not overlap with areas of cultural importance.
VSEC: Individual and Community Wellness	The Project contributes to quality of life and better health through improved air quality by displacing diesel generated power. The Proponent will work in close collaboration with the municipality to ensure development is phased and mitigations are implemented so

VSEC or VEC	Project's Contribution to Achieving Sustainability
	that the Project does not create unsustainable pressure on the community during construction.
VSEC: Community Infrastructure and Public Services	The Project respects the separation of land uses as it is located at an appropriate distance from the community to ensure the reduction of adverse impacts on the community. The Project access road will provide better, all season access to traditional use areas. As a renewable resource, the implementation of wind turbines contributes towards Sanikiluaq's maximization of renewable resources. Revenues from community ownership could be used to fund new local housing infrastructure. The Project may consider leaving construction camp buildings to increase space for other uses following construction.
All Environmental VECs, including; Surface Water Quality Fish Habitat Surface Hydrology Fauna Species-at-risk Wetlands Air quality Climatology	The proposed locations and design choices for all project components were selected intentionally to minimize environmental impacts. The purpose of the Project is to reduce the diesel reliance in the hamlet, and in turn reducing the carbon footprint in and around the environment and ecosystems surrounding Sanikiluaq.

9.0 Monitoring and Management Plans

9.1 Wildlife Management Plan

The objectives of wildlife monitoring are to:

- determine the effectiveness of wildlife mitigation and enhancement measures;
- identify strategies to adapt/enhance mitigations, if required;
- identify and respond to unanticipated wildlife effects and issues; and
- provide information to regulators and stakeholders on actual wildlife impacts.

The Sanikiluaq wildlife monitoring will commence at the start of Project activity and will continue for the life of the Project. Topic, scope, and frequency of components to monitor will be determined and established in consultation with stakeholders and Sanikiluaq residents. Table 13 below offers an example table that can be completed as a first step in this process to establish a plan.

Table 13: Sample Wildlife Management Plan Consultation Table

Topic (based on Project effects)	Mitigation Measure	Timing	Accountability	Monitorable? (Yes or No)	If yes, how? If no, why not?

9.2 Socio-Economic Monitoring Plan

The following section highlights a summary of Section 9.2 in the Socio-Economic Impact Assessment, for further details the report can be found in Appendix C.

The objectives of socio-economic monitoring are to:

- determine the effectiveness of socio-economic mitigation and enhancement measures;
- identify strategies to adapt/enhance mitigations, if required;
- identify and respond to unanticipated socio-economic effects and issues; and
- provide information to regulators and stakeholders on actual socio-economic outcomes.

The Sanikiluaq socio-economic monitoring will commence at the start of Project activity and will continue for the life of the Project. Topic, scope, and frequency of components to monitor will be determined and established in consultation with stakeholders and Sanikiluaq residents. Table 14 below offers an example table that can be completed as a first step in this process to establish a plan.

Table 14: Sample Socio-Economic Management Plan Consultation Table

Topic (based on Project effects)	Mitigation Measure	Timing	Accountability	Monitorable? (Yes or No)	If yes, how? If no, why not?

9.3 Additional Monitoring Plans

As the Project progresses from the project planning and preparation phase and design development through to construction, additional monitoring plans will be developed as part of the Project Execution Plan, which are anticipated to include;

- Human Health Risk Assessment of the contaminants at the site; and,
- Project Management Plan (including construction monitoring, meetings and reporting requirements during construction); and,
- Health & Safety Plan (compliant with WSCC in accordance with Nunavut regulation); and,
- Emergency Response Plan; and,
- Environmental Protection Plan; and
    - Comprehensive Spill Prevention Plan (with considerations for hazardous waste and fuel handling, storage, and disposal, spill prevention measures, staff training and emergency contacts); and,
    - Waste Management Plan/Program/housekeeping requirements; and,
    - Monitoring and Management Plans (e.g., water quality, air pollution, noise control, etc.); and,
- Quality Control Plan (including inspections test plans and procedures); and,
- Battery Limits for different contractors' equipment and QEC (to be finalized with QEC input); and,
- Testing and Commissioning Plan; and,
- Operation and Maintenance Plan; and,
- Abandonment and Decommissioning Plan; and,
    - Reclamation Plan (including cleanup criteria and how the criteria were derived).

In the absence of these plans, it can be ensured that the Project will abide by all applicable guidelines and regulations, and upon completion of the Execution Plan it can be provided to the NPC and the NIRB for review.

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