Demande de la CNER faisant l’objet d’un examen préalable #125925

Whale Cove Mobile Wind Resource Assessment Project

Type de demande : New

Type de projet: Scientific Research

Date de la demande : 4/5/2024 5:34:05 PM

Period of operation: from 2024-08-20 to 2025-10-19

Promoteur du projet:
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DÉTAILS

Description non technique de la proposition de projet

Anglais: Northern Energy Capital on behalf of Kivalliq Alternative Energy will conduct a preliminary renewable energy study for the community of Whale Cove, Nunavut. The community of Whale Cove currently relies on aging diesel generators to meet the local electricity demand. The project’s scope is to collect wind data using a sonic detection and ranging (SODAR) device to assess the feasibility of a utility-scale wind energy project. The SODAR unit will measure wind speed, direction, and frequency over a 12-month period starting in Fall 2024. The wind monitoring equipment will be placed on the northern boundary of Whale Cove, approximately 2 km North of town and 5 km South of the airport. The project will not require extensive land displacement or alteration; the SODAR device will be placed on the ground surface with a 3.0m x 3.0m tent enclosure to protect both wildlife and equipment, including a 5.7m x 6.1m solar power supply. The SODAR itself measures 0.5m x 0.5m x 3.0m tall. The study will consider the use of wind and battery energy storage systems, and the demand in order to effectively offset the diesel generation in the community.

Français: N/A

Inuktitut: ᐅᑭᐅᖅᑖᖅᑐᒥᑦ ᐆᒻᒪᖅᑯᑎᓕᕆᔩᒃᑯᑦ ᐱᔾᔪᑎᑦᓗᒋᑦ ᑭᕙᓪᓕᕐᒥᑦ ᐊᓯᐊᒍᓪᓚᖓᐆᒻᒪᖅᑯᑎᓕᕆᔩᒃᑯᑦ ᓯᕗᓪᓕᕐᒥᑦ ᐊᑐᖅᑕᐅᒃᑲᓂᕈᓐᓇᖅᑐᓂᒃ ᐆᒻᒪᖅᑯᑎᓂᒃᖃᐅᔨᓴᐃᓂᐊᖅᑐᑦ ᑎᑭᕋᕐᔪᐊᕐᒥᑦ, ᓄᓇᕘᒻᒥᑦ. ᑎᑭᕋᕐᔪᐊᕐᒥᑕᐃᑦ ᒫᓐᓇ ᐊᑐᖃᑦᑕᖅᑐᑦᓄᑕᐅᔪᓐᓃᖅᑐᓂᒃ ᐅᖅᓱᐊᓗᒃᑐᖅᑐᒥᒃ ᐆᒻᒪᖅᑯᑎᓕᐅᕈᑎᓂᒃ ᐃᑯᒻᒪᖅᑯᑎᒥᒃᐊᑐᕆᐊᖃᖅᑐᓄᑦ. ᐱᓕᕆᐊᖑᓂᐊᖅᑐᖅ ᑲᑎᑦᑎᓂᐊᕐᓗᑎᒃ ᐊᓄᕆᑦᓈᓴᐅᑎᓂᒃ/ᑎᑎᖅᖃᓂᒃ ᓂᐱᖃᕐᓂᕐᒥᒃ ᐱᓂᐊᕐᓗᑎᒃ ᐊᒻᒪᓗ ᑎᑭᐅᑎᓯᒪᓂᖓᓂᑦ (SODAR)ᖃᐅᔨᓴᕐᓂᐊᕐᓗᒋᑦ ᐊᔪᙱᓐᓂᐊᕐᓂᖓ ᐊᓄᕆᑦ ᐆᒻᒪᖅᑯᑎᓕᐅᕆᔪᒥᑦ. SODARᐆᒃᑐᕋᐃᓂᐊᖅᑐᖅ ᐊᓄᕆᐅᑉ ᓇᑭᕐᓂᖓᓂᑦ, ᓇᑦᙯᕐᓂᖓᓂᑦ, ᐊᒻᒪᓗᐊᒥᓯᐃᖅᑕᒃᑦᑕᕐᓂᖓ ᑕᖅᕿᓄᑦ 12-ᓄᑦ. ᐱᓕᕆᐊᖅ ᓄᓇᒥᑦᐊᓯᐊᓄᐊᖅᑎᕆᓗᐊᕆᐊᖃᔾᔦᖏᑦᑐᖅ ᐊᓯᐊᙳᖅᓯᓂᖃᕐᓗᓂᔫᓐᓃᑦ; SODARᐃᓕᔭᐅᓂᐊᖅᑐᖅ ᒪᓂᕋᐅᑉ ᖃᖓᓄᑦ 3.0 x 3.0 ᒦᑕᓂᒃ ᐊᖏᑎᑭᔪᒥᑦ ᑐᐱᖅᑕᐅᓯᒪᓗᓂᒥᐊᓂᕆᓂᐊᕐᓗᒋᑦ ᑕᒪᕐᒥᒃ ᓂᕐᔪᑏᑦ ᐊᒻᒪᓗ ᐱᕐᑯᑎ, ᐃᓚᐅᑉᓗᓂ 5.7m x 6.1m photovoltaic ᐆᒻᒪᖅᑯᑎᑖᕐᕕᐅᖃᑦᑕᖅᑐᖅ. SODAR ᐊᖏᑎᒋᔪᖅ 0.5m x 0.5m x3.0m ᑕᑭᑎᒋᑉᓗᓂ. ᖃᐅᔨᓴᐃᓂᖅ ᐃᓱᒪᒋᔭᖃᕐᓂᐊᖅᑐᖅ ᐊᑐᖅᑕᐅᓂᖓ ᐊᓄᕆ ᐊᒻᒪᓘᑐᓕᕐᒥᑦ ᑐᖅᑯᖅᓯᓯᒪᕝᕕᑦ, ᐊᒻᒪᓗ ᐊᑐᖅᑕᐅᔪᒪᓂᖓ ᐊᔪᙱᑦᑐᒃᑯᑦᐊᑐᕈᓐᓃᖅᑎᑦᑐᙵᕐᓂᐊᕐᓗᒍ ᐅᖅᓱᐊᓗᖕᒥᑦ ᐆᒻᒪᖅᑯᑎᓕᐅᕆᓂᖅ ᓄᓇᓕᖕᒥᑦ.

Inuinnaqtun: N/A

Personnel

Personnel on site: 4

Days on site: 4

Total Person days: 16

Operations Phase: from 2024-08-20 to 2024-09-18

Operations Phase: from 2024-08-20 to 2025-10-19

Post-Closure Phase: from to

Activités

Emplacement	Type d'activité	Statut des terres	Historique du site	Site à valeur archéologique ou paléontologique	Proximité des collectivités les plus proches et de toute zone protégée
Site A	Equipment installation	Municipal	The Project will operate on untitled municipal land in Whale Cove that is administered by the Commissioner.	N/A	Project site is approximately 2 km from Whale Cove and 6 km from the airport.

Engagement de la collectivité et avantages pour la région

Collectivité	Nom	Organisme	Date de la prise de contact
Whale Cove	Brian Fleming	Hamlet of Whale Cove	2024-04-11
Whale Cove	Brian Fleming	Hamlet of Whale Cove	2024-03-20

Autorisations

Indiquez les zones dans lesquelles le projet est situé:

Autorisations

Organisme de régulation	Description des autorisations	État actuel	Date de l'émission/de la demande	Date d'échéance
Institut de recherche du Nunavut	The proponent acknowledges the Project will also require a scientific license from NRI	Not Yet Applied		
Government of Nunavut, Community Government & Services	The proponent submitted a Land Use Permit application and is awaiting approval from the Hamlet of Whale Cove and a determination from NIRB.	Applied, Decision Pending		
Government of Nunavut, Community Government & Services	The proponent is waiting for a time to present the project to Hamlet Council before applying for the Development Permit.	Not Yet Applied		

Project transportation types

Transportation Type	Utilisation proposée	Length of Use
Air	A single flight for up to three staff to Whale Cove to install the SoDAR device in Fall 2024. No other flights necessary	
Land	Use of ATV or truck to site to move equipment to site in Fall. Winter access by maintenance team can be by snowmobile in winter as needed.	

Project accomodation types

Collectivité

Utilisation de matériel

Équipement à utiliser (y compris les perceuses, les pompes, les aéronefs, les véhicules, etc.)

Type d'équipement	Quantité	Taille – Dimensions	Utilisation proposée
Sonic Detection and Ranging (SODAR)	1	0.5m x 0.5m x 3.0m	Using sound waves, this equipment will monitor wind activity including wind speed, wind direction, and wind frequency.
White Tent	1	3.0m x 3.0m	Tent enclosure to protect both wildlife and equipment that will house the more delicate SoDAR power supply.
PV array	1	5.7m x 6.1m	Photovoltaic power supply that will serve as the primary power supply for the SoDAR equipment.

Décrivez l'utilisation du carburant et des marchandises dangereuses

Décrivez l'utilisation de carburant :	Type de carburant	Nombre de conteneurs	Capacité du conteneur	Quantité totale	Unités	Utilisation proposée
Propane	fuel	6	100	600	Lbs	The propane is used to regulate the SODAR's temperature for the prevention of ice formation. Additionally, the propane is also used to power a generator to supplement the SODAR's 15W power requirement. Necessary steps are being made to reduce the quantity of fuel containers stored on site.

Consommation d'eau

Quantité quotidienne (m3)	Méthodes de récupération de l'eau proposées	Emplacement de récupération de l'eau proposé
0	No water is required for this study.	No water is required for this study.

Déchets

Gestion des déchets

Activités du projet	Type des déchets	Quantité prévue	Méthode d'élimination	Procédures de traitement supplémentaires
Equipment installation	Other, None	0lb	Landfill, recycled, reused, repurposed	Proponent does not anticipate any waste during installation of SODAR equipment. The crating the equipment arrives in will be reused to move the equipment after the 12- month study. The emptied propane tanks after use will be stored with the Hamlet office and refilled and reused. Should there be any waste, NEC will come prepared with a plan in place to dispose of the waste in an effective and appropriate matter that complies with local regulatory guidelines.

Répercussions environnementales :

Waste, impact mitigation, and environmental impacts from SODAR feasibility projects are typically very low and limited to land use displacement and construction if necessary. Nevertheless, the project team has endeavoured to identify and prevent any unacceptable environmental impacts or impacts on traditional land use. Potential risks identified that could be caused by the project are listed below, and due to character limits, the planned mitigation strategies will be stored in the documents section. Risks include disturbance of land resulting in habitat destruction, impact to caribou migratory corridors and habitat range, leak or spillage of fuel resulting in ground contamination, interference with traditional land use, presence of archaeological sites or artifacts, and unforeseen generation of construction waste. A comprehensive outline for mitigation measures is attached in Project Documents.

Additional Information

SECTION A1: Project Info

SECTION A2: Allweather Road

SECTION A3: Winter Road

SECTION B1: Project Info

SECTION B2: Exploration Activity

SECTION B3: Geosciences

SECTION B4: Drilling

SECTION B5: Stripping

SECTION B6: Underground Activity

SECTION B7: Waste Rock

SECTION B8: Stockpiles

SECTION B9: Mine Development

SECTION B10: Geology

SECTION B11: Mine

SECTION B12: Mill

SECTION C1: Pits

SECTION D1: Facility

SECTION D2: Facility Construction

SECTION D3: Facility Operation

SECTION D4: Vessel Use

SECTION E1: Offshore Survey

SECTION E2: Nearshore Survey

SECTION E3: Vessel Use

SECTION F1: Site Cleanup

SECTION G1: Well Authorization

SECTION G2: Onland Exploration

SECTION G3: Offshore Exploration

SECTION G4: Rig

SECTION H1: Vessel Use

SECTION H2: Disposal At Sea

SECTION I1: Municipal Development

Description de l'environnement existant : Environnement physique

The ground surface is compromised mostly of jagged rock. We intend to place the SODAR device on the most level surface within the permitted zone. The proponent consulted CGS Land Administration for site history and proximity to sensitive habitats, proponent reviewed animal migration and rutting paths as part of a desktop study and devised a plan of action in case of emergency. This is outlined in the Predicted Environmental impacts document found in Project Documents

Description de l'environnement existant : Environnement biologique

Please review Predicted environmental impacts of undertaking and proposed mitigation measures located in Project Documents.

Description de l'environnement existant : Environnement socio-économique

The proposed site is in the outer boundary of the municipality. The equipment has a small footprint and isn't expected to disrupt activity in the area. NEC is consulting with the Hamlet to find a company or appropriate individuals to perform routine check-ups on the equipment to check for interference. The equipment is also fitted with surveillance equipment to identify human and animal activity in proximity to equipment.

Miscellaneous Project Information

Identification des répercussions et mesures d'atténuation proposées

Please review Predicted environmental impacts of undertaking and proposed mitigation measures located in Project Documents.

Répercussions cumulatives

Please review Predicted environmental impacts of undertaking and proposed mitigation measures located in Project Documents.

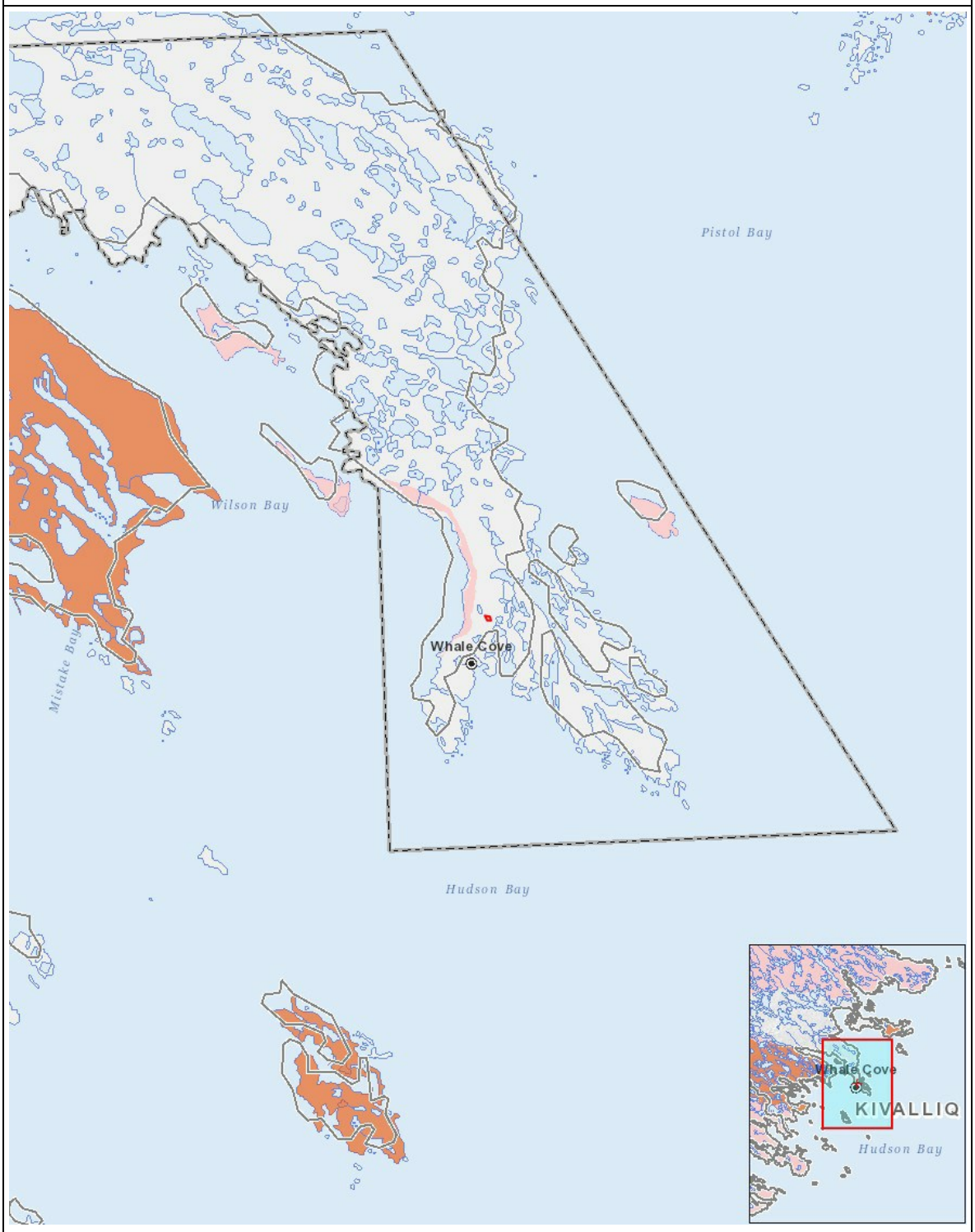
Impacts

Identification des répercussions environnementales

	PHYSICAL	Designated environmental areas	Ground stability	Permafrost	Hydrology / Limnology	Water quality	Climate conditions	Eskers and other unique or fragile landscapes	Surface and bedrock geology	Sediment and soil quality	Tidal processes and bathymetry	Air quality	Noise levels	BIOLOGICAL	Vegetation	Wildlife, including habitat and migration patterns	Birds, including habitat and migration patterns	Aquatic species, incl. habitat and migration/spawning	Wildlife protected areas	SOCIO-ECONOMIC	Archaeological and cultural historic sites	Employment	Community wellness	Community infrastructure	Human health
Construction																									
Equipment installation		-	-	-	-	-	-	-	U	U	-	-	M		U	-	-	-	-		U	P	P	-	-
Exploitation																									
Equipment installation		-	-	-	-	-	-	-	U	U	-	-	M		U	-	-	-	-		U	P	P	-	-
Désaffectation																									
-		-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-		-	-	-	-	-

(P = Positive, N = Négative et non gérable, M = Négative et gérable, U = Inconnue)

Site du projet



Liste des géométries de projet

1	polygon	Site A