

Demande de la CNER faisant l'objet d'un examen préalable #125722
Mobile Wind Resource Assessment Project

DÉTAILS

Description non technique de la proposition de projet

Anglais: Northern Energy Capital (NEC) on behalf of Kivalliq Alternative Energy will conduct a preliminary renewable energy study for the community of Baker Lake, Nunavut. Baker Lake currently relies on four diesel generators to meet the local electricity demand. The intent of this study is to collect wind data to assess the feasibility of a utility-scale wind energy project in order to offset the reliance on diesel energy. The study will consider the use of wind turbines and a battery energy storage system. Wind energy does not pollute the air like diesel energy production. Diesel consumption releases particulate matter and fumes causing human health problems and environmental damage. Clean wind energy will promote human and environmental health in the community. NEC will install a device to measure wind speed, direction, and frequency over a 12-month period from Fall 2022 to Fall 2023. The wind monitoring equipment will be placed on the northern boundary of Baker Lake. The non-invasive equipment occupies a small footprint and is powered by a single propane tank. The equipment operates autonomously with regular servicing performed by local contractors hired by NEC. Thank you everyone for your support in this project.

Français: (only for the City of Iqaluit)

[illegible]

Personnel

Personnel on site: 4

Days on site: 4

Total Person days: 16

Operations Phase: from 2022-09-04 to 2022-09-05

Operations Phase: from 2022-09-05 to 2023-09-05

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
Proposed SODAR Location	Equipment installation	Municipal	The project will operate on untitled municipal land in Baker Lake, NU. The proponent was previously issued a land use and development permit for the land in April 2016.	n.a	The site is 1km Northeast of Baker Lake.

Engagement de la collectivité et avantages pour la région

Collectivité	Nom	Organisme	Date de la prise de contact
Baker Lake	Frank, Peter, Lars, Eugene	Peters Expediting Limited	2022-04-29

Autorisations

Indiquez les zones dans lesquelles le projet est situé:

Kivalliq

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 Nunavut Research Institute should they need to validate the Wind Resource Assessment.	Not Yet Applied		
Government of Nunavut, Community Government & Services	The proponent submitted a Land Use Permit application. The Hamlet of Baker Lake tentatively approved the request and are awaiting a determination from NIRB.	Applied, Decision Pending		
Government of Nunavut, Community Government & Services	The proponent submitted a Development Permit application. The Hamlet of Baker Lake tentatively approved the request.	Applied, Decision Pending		

Project transportation types

Transportation Type	Utilisation proposée	Length of Use
Air	A single flight for three staff to install the device in Fall 2022.	
Land	Transport from Airport to site by means of pick-up truck or snowmobile.	

Project accomodation types

Autre,

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.

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	Déchets non combustibles	0lbs	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 at Peters Expediting Limited 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 manner 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 intent to place the 0.5m x 0.5m 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 caribou 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 has contracted Peters Expediting Limited 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.

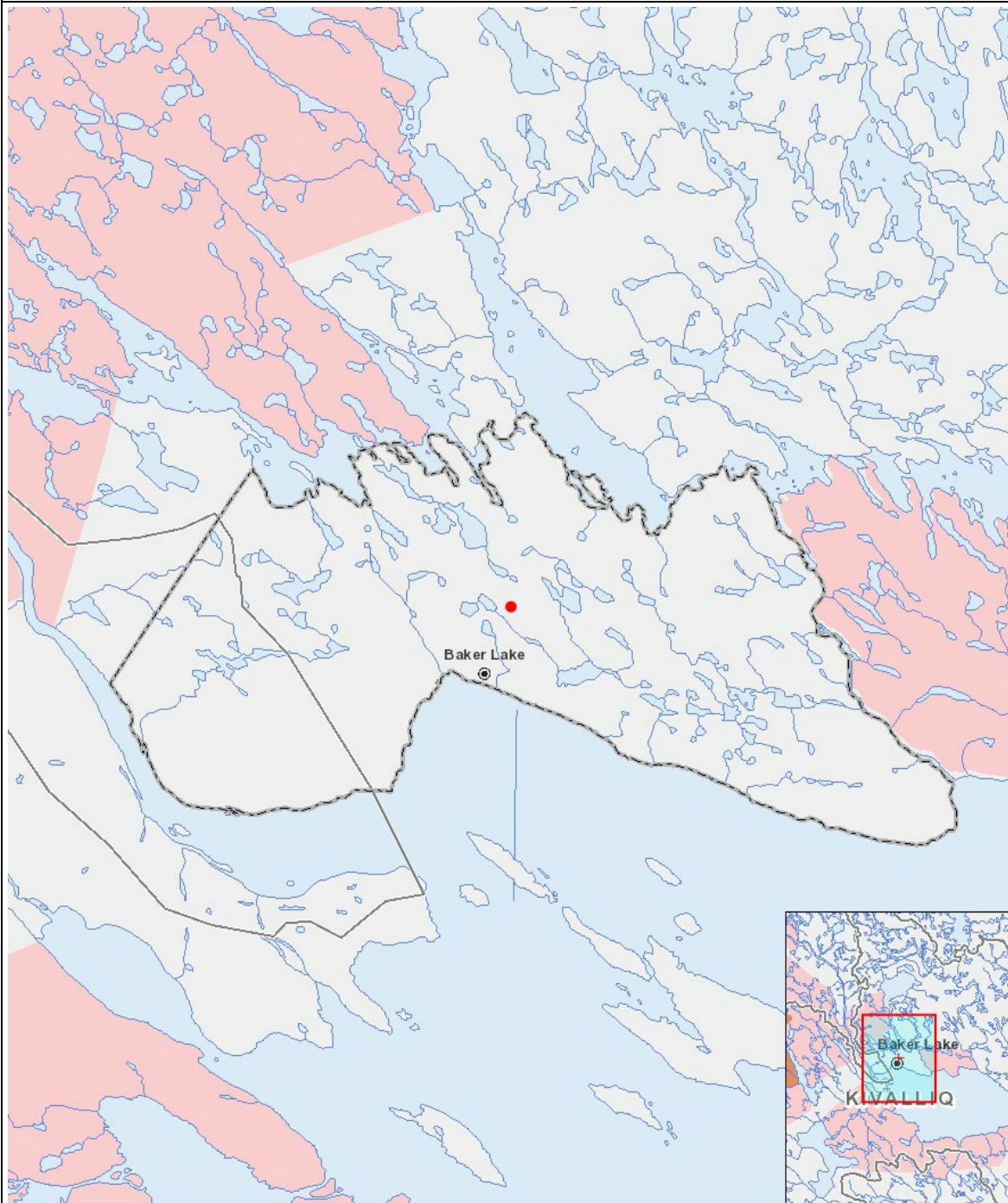
Impacts

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		-	-	-	-	-	P	-	U	U	-	P	M		U	M	U	-	U		U	P	P	P	P
Exploitation																									
Equipment installation		-	-	-	-	-	P	-	U	U	-	P	M		U	M	U	-	U		U	P	P	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	point	Proposed SODAR Location
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