



## **Demande de la CNER faisant l'objet d'un examen préalable #125769**

### **Chesterfield Inlet Mobile Wind Resource Assessment Project**

**Type de demande :** New

**Type de projet:** Scientific Research

**Date de la demande :** 2/6/2023 2:00:00 PM

**Period of operation:** from 0001-01-01 to 0001-01-01

**Autorisations proposées:** from 0001-01-01 to 0001-01-01

**Promoteur du projet:** Oliver Pennock  
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## DÉTAILS

## Description non technique de la proposition de projet

Anglais: Northern Energy Capital (NEC), on behalf of Kivalliq Alternative Energy (KAE), will conduct a preliminary renewable energy study in Chesterfield Inlet, Nunavut. The community relies on aging diesel generators to meet local electricity demand. The study will consider using wind energy and battery storage systems to offset the community's reliance on fossil fuels. Unlike diesel energy, wind energy is an unlimited resource that does not cause harmful air pollution and environmental damage. 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. NEC will install the SODAR equipment at the project site approximately 5km from the community of Chesterfield Inlet, where it will measure the wind speed, direction, and frequency for 12 months from Fall 2023-2024. The SODAR wind monitoring equipment will include a SODAR device measuring 0.5m x 0.5m x 3.0m tall, a 5.7m x 6.1m photo-voltaic power supply, a single propane tank, and a 3.0m x 3.0m tent enclosure to protect the equipment controls and wildlife. Overall, the SOAR technology is non-invasive, occupies a small footprint, and does not require extensive land displacement or alteration.

Français: (only for the City of Iqaluit)

[illegible]

## Personnel

Personnel on site: 4

Days on site: 4

Total Person days: 16

Operations Phase: from 2023-08-22 to 2023-08-26

Operations Phase: from 2023-08-26 to 2024-08-26

### 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
Project Site (SoDAR Location)	Equipment installation	Commissioners	The Project will operate on untitled municipal land in Chesterfield Inlet that is administered by the Commissioner.	non-applicable	Project site is approximately 5km from Chesterfield Inlet and 4km from the airport.

### Engagement de la collectivité et avantages pour la région

Collectivité	Nom	Organisme	Date de la prise de contact
Chesterfield Inlet	Casey Malliki, Brian Zawadski	Aulajuq Limited	2023-01-29

## 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 and is awaiting approval from the Hamlet of Chesterfield Inlet and a determination from NIRB.	Applied, Decision Pending		
Government of Nunavut, Community Government & Services	The proponent in the process of submitting a Development Permit application and is awaiting a determination from NIRB.	Not Yet Applied		

### Project transportation types

Transportation Type	Utilisation proposée	Length of Use
Air	A single flight for up to three staff to install the SoDAR device in Fall 2023	
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	0 lbs	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 Aulajuq 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 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 has contracted Aulajuq 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.



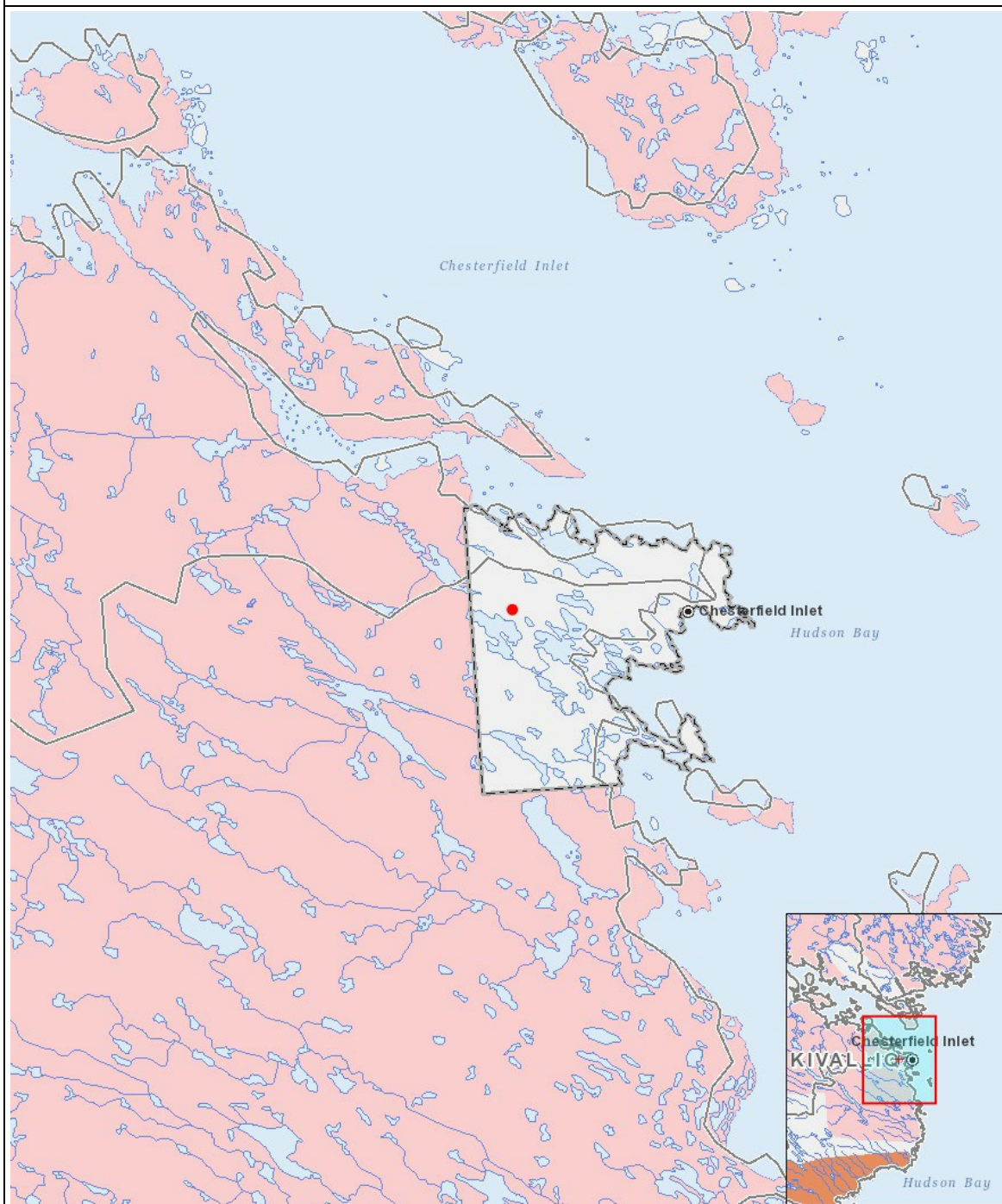
# Impacts

## 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	polygon	Project Boundaries
2	point	Project Site (SoDAR Location)