



NIRB Application for Screening #125485

Rankin Inlet and Baker Lake Meteorological Towers

Application Type: New

Project Type: Scientific Research

Application Date: 9/16/2019 8:51:31 PM

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

Proposed Authorization: from 0001-01-01 to 0001-01-01

Project Proponent: Kailey Wright
Northern Energy Capital Inc
7209 7th Ave
Whitehorse Yukon Y1A 1R8
Canada
Phone Number:: 250-686-6644, Fax Number::

Post-Closure Phase: from to

Activities

Location	Activity Type	Land Status	Site history	Site archaeological or paleontological value	Proximity to the nearest communities and any protected areas
Rankin Inlet Site	Other	Municipal	This site has not had any development prior to NEC acquiring the Land Use permit. A meteorological tower has been erected to assess the wind resources of the proposed site. Wind turbines constructed in the future will provide power to the community.	None Identified.	This area is North-West of the Hamlet of Rankin Inlet, within the municipal boundaries.
Baker Lake Site	Other	Municipal	This site has not had any development prior to NEC acquiring the Land Use permit.	None Identified.	North of Baker Lake, within the municipal boundaries.

Community Involvement & Regional Benefits

Community	Name	Organization	Date Contacted
Baker Lake	Sheldon Dorey	Baker Lake Hamlet Council	2018-10-01
Rankin Inlet	Martha Lenio	WWF Canada	2018-05-15
Rankin Inlet	Kevin Sanguin	Sakku Development Corporation	2017-09-15
Rankin Inlet	David Kakuktinniq	Sakku Development Corporation	2018-06-20
Rankin Inlet	Randy Mercer	Regional Lands Administrator	2018-05-08

Authorizations

Indicate the areas in which the project is located:

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Authorizations

Regulatory Authority	Authorization Description	Current Status	Date Issued / Applied	Expiry Date
Transport Canada	Authorization to erect the Meteorological Tower in Baker Lake.	Active	2018-11-21	
Other	NAVCAN: Authorization to erect the Meteorological Tower in Baker Lake	Active	2019-01-06	
Transport Canada	Authorization to erect the Meteorological Tower in Rankin Inlet	Active	2018-05-14	
Other	NAVCAN: Authorization to erect the Meteorological Tower in Rankin Inlet.	Active	2018-04-30	
Nunavut Research Institute	Permit for the installation of the Met mast towers.	Not Yet Applied		
Government of Nunavut, Community and Government Services	Land Use permit for Baker Lake site.	Active	2019-04-02	2021-04-01
Government of Nunavut, Community and Government Services	Land Use permit for Rankin Inlet site.	Active	2018-06-02	2020-06-01

Project transportation types

Transportation Type	Proposed Use	Length of Use
Land	Overland transportation will be required to bring necessary materials to their respective install sites.	

Project accomodation types

Community

Material Use

Equipment to be used (including drills, pumps, aircraft, vehicles, etc)

Equipment Type	Quantity	Size - Dimensions	Proposed Use
Rock Drill	1	small	Used to drill anchors anchors
Pickup Truck	1	typical	Transportation and Equipment delivery
Mini-Excavator	1	small	Minor site and foundation preparation

Detail Fuel and Hazardous Material Use

Detail fuel material use:	Fuel Type	Number of containers	Container Capacity	Total Amount	Units	Proposed Use
Diesel	fuel	1	50	50	Gallons	Backup for otherwise solar powered met tower
Propane	fuel	1	100	100	Liters	Propane heaters (if required)

Water Consumption

Daily amount (m3)	Proposed water retrieval methods	Proposed water retrieval location
0	Water needed by equipment will be sourced by our contractors through their regular channels. Water requirements are expected to be minimal. No other water will be required on site.	

Waste

Waste Management

Project Activity	Type of Waste	Projected Amount Generated	Method of Disposal	Additional treatment procedures
Equipment installation	Non-Combustible wastes	1 tonne maximum	General construction waste. No waste storage will occur on site. Waste will consist of general construction waste and will be disposed of at the local municipal waste facilities. No hazardous waste will be produced. No additional waste will be produced after construction during the assessment.	None

Environmental Impacts:

The proposed equipment installation of the met towers is for the purpose of developing a renewable energy system for RI. Therefore

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 of Existing Environment: Physical Environment

This section outlines the general condition of each site including existing infrastructure and physiological characteristics. Both the Rankin Inlet and Baker Lake sites exist within the local municipal boundaries for those respective communities and within pre-disturbed areas. Both sites consist of gently undulating shallow soils with little to no vegetation. Bedrock exists at or near ground surface at both sites.

Description of Existing Environment: Biological Environment

Described in part above.

Description of Existing Environment: Socio-economic Environment

Community consultation is on-going. So far the feedback from both the Baker Lake and Rankin Inlet communities has been very positive. This project will grow and continue to employ two full-time workers at each site. The construction phase will also allow for additional employment, which will be sourced primarily from the Hamlets. Outside workers will require lodging and meals from the Hamlet during the construction phase and provide economic benefits during that time.

Miscellaneous Project Information

Identification of Impacts and Proposed Mitigation Measures

The impacts from this project are largely positive. The positive impact of diversification of the communities energy generation will take some of the load off of the aging power plants. This project represents Nunavut's first big step into clean energy will be a landmark project for the territory. This project will reduce the reliance of diesel to generate electricity in these communities, reducing all the risks associated with shipping, storing, and burning large quantities of fossil fuels.

Cumulative Effects

The meteorological tower assessment will be approximately one year. If given the go ahead for the construction of the wind farm, the life of a wind farm is typically 25-30 years. Rankin Inlet and Baker Lake will benefit from this infrastructure for future generations.

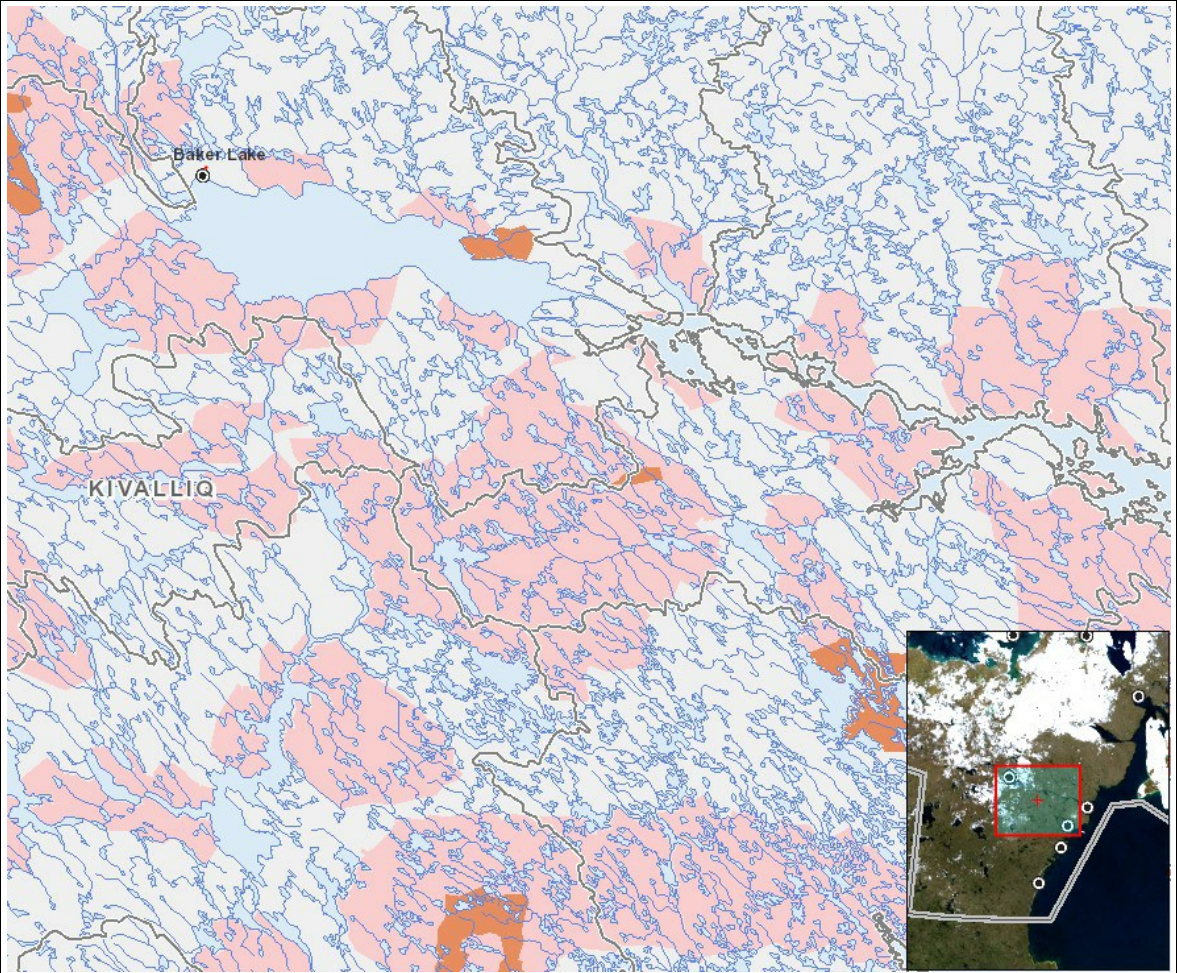
Impacts

Identification of Environmental Impacts

		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																										
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Operation																										
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Decommissioning																										
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(P = Positive, N = Negative and non-mitigatable, M = Negative and mitigatable, U = Unknown)

Project Location



List of Project Geometries

1	polygon	Baker Lake Site
2	polygon	Rankin Inlet Site