Project Dashboard

Qikiqtani Marine Renewable Energy Resource Assessment (149538)

Proposal Status: Conformity Determination Issued

Project Overview

Type of application: **New**

Proponent name:	Heather Shilton
Company:	Nunavut Nukkiksautiit Corporation

Schedule:

Start Date:	2021-06-01
End Date:	2022-10-31
Operation Type:	Annual

Project Description:

Nunavut Nukkiksautiit Corporation (NNC) plans to collect ocean/river current data in five communities throughout the Qikiqtani region of Nunavut to support an assessment of the marine renewable energy resource potential. The research project will be completed in three distinct phases: Desktop assessment, Initial Site Surveys, and Detailed Site Surveys. The desktop assessment will consider publicly available information regarding communities, the environment, and the energy usage within communities to determine five communities with marine renewable energy potential. The initial site surveys will deploy vessel-mounted lowered acoustic doppler current profilers and other equipment (GPS & Depth Sounders) to collect ocean/river current data and transects in open water areas near the five communities selected in the desktop assessment. The initial site survey will use a local vessel and crew in each of the communities. For the initial site surveys there will be no installation of temporary or permanent equipment as all data can be collected from the vessel. The detailed site surveys will consider two of the five communities from the initial site survey determined to have the highest marine renewable energy potential. The detailed site surveys will deploy bottom-mounted ADCPs over the duration of the open water season and will be recovered at the end of the campaign. There will be no installation of permanent equipment for this project.

Personnel:

Persons:	4
Days:	25

Project Map

List of all project geometries:

ID	Geometry	Location Name
7815	point	Rivers/Near Shore Ocean Areas Near Kimmirut
7816	point	Rivers/Near Shore Ocean Areas Near Iqaluit
7817	point	Rivers/Near Shore Ocean Areas Near Cape Dorset
7818	point	Rivers/Near Shore Ocean Areas Near Pangnirtung
7819	point	Rivers/Near Shore Ocean Areas Near Qikiqtarjuaq

7820	point	Rivers/Near Shore Ocean Areas Near Clyde River
7821	point	Rivers/Near Shore Ocean Areas Near Pond Inlet
7822	point	Rivers/Near Shore Ocean Areas Near Grise Fiord
7823	point	Rivers/Near Shore Ocean Areas Near Resolute Bay
7824	point	Rivers/Near Shore Ocean Areas Near Arctic Bay
7825	point	Rivers/Near Shore Ocean Areas Near Igloolik
7826	point	Rivers/Near Shore Ocean Areas Near Hall Beach
7827	point	Rivers/Near Shore Ocean Areas Near Sanikiluaq

Planning Regions:
Qikiqtani
Kivalliq
Affected Areas and Land Types
Municipal
Settlement Area
North Baffin Planning Region

Project Land Use and Authorizations

Project Land Use
Marine-Based Activities
Marine-Based Activities
Scientific Research
Licensing Agencies
NRI: Scientific Research Licence
DFO: 0
Other Licensing Requirements
No data found.

Material Use

Equipment

Type	Quantity	Size	Use
Marine Vessel	5	~15 m	Marine vessels will be used to deploy equipment and collect data. Quantity is 5 given that a local vessel will be hired in each of the selected communities

Lowered Acoustic Doppler Current Profiler	1	~ 1 m x 0.5 m	The LADCP will be mounted to the vessels for the initial site surveys and used to collect current speed data.
Multibeam Sonar	1	~0.5 m x 0.5 m	Multibeam sonar equipment will be mounted to vessel for initial site surveys to conduct transects of the channels to inform some of the data analysis.
Acoustic Doppler Current Profiler	2	~ 1m diameter x 0.5 m height	ADCPs will be deployed in two communities for the detailed site surveys to facilitate the collection of ocean/river current data. They will be recovered following the data collection campaign.

Fuel Use

Type	Container(s)	Capacity	UOM	Use
Diesel	25	100	Liters	Diesel fuel will be used for the marine vessels throughout the survey. Quantities are estimated based on 25 vessel days over the entire two season program.

	Vessel selection will take place at a later date and therefore the fuel usage is only an estimate.

Hazardous Material and Chemical Use

Type	Container(s)	Capacity	UOM	Use
No records found.				

Water Consumption

Daily Amount (m^3)	Retrieval Method	Retrieval Location
0		

Waste and Impacts

Environmental Impacts

There are no envisioned environmental impacts from this program. There are no equipment deployments for the initial site surveys, and the detailed site surveys avail of non-intrusive, temporary equipment.

Waste Management

Waste Type	Quantity Generated	Treatement Method	Disposal Method
Greywater	250 liters	NA	All waste generated onboard the vessels will be disposed of during the next port call.
Non-Combustible wastes	5 Bags	NA	All Garbage will be removed from vessel and disposed of according to municipal regulations during the next port call of the vessels.

Sewage (human waste)	100 L	NA	All sewage will be pumped from the vessel holds using a vacuum truck and disposed of according to municipal regulations during the next port call of the vessel.