NIRB Application for Screening #126182
Cambridge Bay Solar + Storage

Application Type: New

Project Type: Power Plant

Application Date: Friday, June 27, 2025

Period of operation: from 2027-10-01 to 2057-10-01

Project Proponent:
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Cambridge Bay Nunavut X0B 0C0
Canada
Phone Number:: (867) 445-7924, Fax Number::

DETAILS

Non-technical project proposal description

English: Kitikmeot Corporation plans to develop, build and operate a 3000 kW solar and battery energy storage system in Cambridge Bay, NU.The Cambridge Bay Solar + Storage project (CBSS) will employ people through two years of construction, at least 30 years of operation, and through one year of decommissioning. Generating clean energy and employing people locally will ensure that economic benefits from this clean energy project stay in the community. The goal of this community solar project is to displace utility diesel generation in the community through the sale of clean, renewable power to Qulliq Energy Corporation (QEC). This project will reduce the community's reliance on diesel for energy, reduce GHG emissions and impact on the environment, and help improve air quality and the health of people in Cambridge Bay. This project also provides a useful test bed for Canada (through CHARs) to monitor and test community renewable energy systems in remote northern microgrids. The location of the solar array installation will be across the bay near Old Town, just south of the LORAN site. Construction is proposed to begin in the summer/fall of 2026, and finish by the end of 2027, at which time it will connect in to QEC's grid and begin providing clean power to the community. Basic maintenance and replacement of critical components will take place periodically over the life of the project. Decommissioning or re-powering of the site is planned for the year 2057.

French: This project is located in the Western Kitikmeot region, therefore an Inuktitut project description is not required, as per the instructions

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Inuinnaqtun: Kitikmeot Kuapuriisan upalungaijaijut pivallianahuarlutik, hanalutik aulattittilugillu hamna 3000 kW hiqinngup ikummadjutikhaq unalu huangaijautit auladjutikhanut tutquumavikhaq iluani Iqaluktuuttiaq, NU. Una Iqaluktuuttiaq Hiqinnguq Ikummadjutikhaq unalu Tutquumavik havaangit (CBSS) havaktittinahuaqtut inuit malrurnik ukiut havaarilugit, 30 nit ukiut auladjutikhangit, unalu atauhiq piijaqtauniq. Auladjutikhaat halumajumik auladjutikhainit havaktittinahuarlugillu inuit nunamiutaujut taimaa kiinaujaliurahuarnigut ikajuutikhainit uvanngat halumajumik auladjutikhaat havaakhangit uvaniittukhaq nunalingnit. Una hivunikhangit haffumani nunalingni hiqunngup ikummadjutikhaq havaarijakhaq ahivainahuaqtangit uqhurjuaqtuqtunut ikummadjutaanut auladjutaat nunalingnit uvuuna niuvipkainahuarlugit halumajumik, atutqiktaaqtut pauwakhaat uvunga Qulliq Ikummadjutit Kuapuriisan (QEC). Una havaarijakhaq naiklinahuarlugit nunalingnit atuinnaqtaat uqhurjuanut ikummadjutaanut, naiklinahuarlugillu Nauttiivikhaq Kaasiliingit Hiamittittijut unalu ihuiluutauhimajuq nunap avataita, ikajuutilugillu anurim atuinnarningit unalu Aanniaqtailinirnut inungnit Iqaluktuuttiarmit. Una havaarijakhaq ilaliutauniaqhunilu aturnaqtumik uuktuutigilugu uukturvikhaq Kanatami (uvuuna Kanatamiut Ukiuqtaqtumi Qaujiharvik) munaqhilugit uuktuqhimalugillu nunalingnit atutqiktaaqtut ikummadjutikhat ungahiktumiunit ukiuqtaqtumi ikummadjutiliurvikhat. Una najurvikhaat haffumani hiqinngup ikummadjutikhaat hanajaujukhaq kangiqhumi hanianiittuqUtuqqarmiittuugaluaq nunalingni, hivuraanit LORAN nappaqhimagaluaqtuq najugaanit. Havaktaujukhaq aullaqtilihaaqtakhaat aujami/ukiakhami 2026 mi, iniqhimalugillu nunguani 2027 mi, taimaa katilviuvikhaat QEC'p hiqinngup ikummadjutikhaat atulihaaqhimalugillu halumajumik pauwaqarvikhat nunalingni. Ajurnaittumik hanavikhaq unalu himmiqtauhimajuq ajurnaqtumik ilaliutikhaanit inuuraarvikhangit haffumani havaarijakhaq. Unguvaqtauvikhaq uuminngaluuniit pauwaqarvikhangit najugakhaat upalungaiqhimajuq ukiungani 2057 mut.

Personnel

Personnel on site: 15

Days on site: 240

Total Person days: 3600

Operations Phase: from 2026-06-01 to 2027-09-30

Operations Phase: from 2027-10-01 to 2057-10-01

Closure Phase: from 2057-10-01 to 2058-10-01

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
Array Area Location 2	Equipment installation	Municipal	Historically the Inuinnait here travelled extensively in family groups. Summer dwellings were caribou or seal skin framed tents. HBC traders reached the area in 1839. Explorers visited from the 1850's. Trading posts opened in the region in 1916. Traders, missionaries, and the RCMP arrived in the 1920s. In 1947, a navigational beacon was built. The construction of the DEW station lead to more employment and a permanent community. In 1954 a Catholic Church (“Old Stone Church”) was constructed.	During the study, six archaeological sites were newly identified, including a grave / burial site, twocampsites and three food storage sites. None of the sites are anticipated to be impacted by the Project.	The solar array site is within the existing municipal boundaries of the Hamlet of Cambridge Bay.
Array Area Location 2	Drilling	Municipal	Historically the Inuinnait here travelled extensively in family groups. Summer dwellings were caribou or seal skin framed tents. HBC traders reached the area in 1839. Explorers visited from the 1850's. Trading posts opened in the region in 1916. Traders, missionaries, and	During the study, six archaeological sites were newly identified, including a grave / burial site, two campsites and three food storage sites. None of the sites are anticipated to be impacted by the Project.	The solar array site is within the existing municipal boundaries of the Hamlet of Cambridge Bay.

			the RCMP arrived in the 1920s. In 1947, a navigational beacon was built. The construction of the DEW station lead to more employment and a permanent community. In 1954 a Catholic Church (“Old Stone Church”) was constructed.		
Array Area Location 2	Staging areas	Municipal	Historically the Inuinnait here travelled extensively in family groups. Summer dwellings were caribou or seal skin framed tents. HBC traders reached the area in 1839. Explorers visited from the 1850's. Trading posts opened in the region in 1916. Traders, missionaries, and the RCMP arrived in the 1920s. In 1947, a navigational beacon was built. The construction of the DEW station lead to more employment and a permanent community. In 1954 a Catholic Church (“Old Stone Church”) was constructed.	During the study, six archaeological sites were newly identified, including a grave / burial site, two campsites and three food storage sites. None of the sites are anticipated to be impacted by the Project.	The solar array site is within the existing municipal boundaries of the Hamlet of Cambridge Bay.

Community Involvement & Regional Benefits

Community	Name	Organization	Date Contacted
Cambridge Bay	Mayor and Hamlet Council	Hamlet of Cambridge Bay	2023-07-11
Cambridge Bay	Amanda Cliff	POLAR Knowledge Canada	2024-10-30
Cambridge Bay	Jim MacEachern	Hamlet of Cambridge Bay	2022-10-20

Cambridge Bay	Mayor and Hamlet Council	Hamlet of Cambridge Bay	2024-08-06
Cambridge Bay	Elder's Society	Pitquhirnikkut Ilihautiniq / Kitikmeot Heritage Society Board of Elders	2023-10-19
Cambridge Bay	General Public	Cambridge Bay Trade Show	2024-02-05

Authorizations

Indicate the areas in which the project is located:

Authorizations

Regulatory Authority	Authorization Description	Current Status	Date Issued / Applied	Expiry Date
Government of Nunavut, Qulliq Energy Corporation	Connection Impact Assessment - study on the impacts of connecting the project to the grid are still in progress.	Applied, Decision Pending	2023-11-20	
Transport Canada	Aeronautical assessment for a new permanent structure. Finding: No protections are needed	Active	2024-11-28	2026-05-28
Government of Nunavut, Department of Culture, Language, Elders, and Youth	Archaeological Assessment. Finding: The project area does not include any sites of archaeological significance and can proceed as far as that is concerned.	Active	2024-11-28	2026-05-28
Government of Nunavut, Community Government & Services	Legal survey and lot creation.	Active	2025-05-12	
Other	NAV Canada - Letter of No Objection	Active	2025-01-06	2026-07-06
Hamlets and Municipalities	A land lease will be required from theHamlet for the projectsite. While Hamlet support has been obtained, a formal lease agreement still needs to be applied for and signed.	Not Yet Applied		

Project transportation types

Transportation Type	Proposed Use	Length of Use
Air	External contractors will fly in and out of Cambridge Bay; some minor project components may be shipped by air.	
Water	The large majority of all construction materials and specialized equipment will be shipped in and out by sealift.	
Land	Equipment will be moved from the barge landing site to the solar site by land. A combinations of flatbed trucks, light duty trucks, and specialized trucks for tasks like hauling gravel will be employed.	

Project accomodation types

Community

Other,

Material Use

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

Equipment Type	Quantity	Size - Dimensions	Proposed Use
Passenger Vehicles	3-5	20' x 7'	Pick-up trucks and similar to get workers and equipment to and from the project site
Diesel Generator	1	30 kW	A diesel generator for on-site power needs during construction.
Pile Driver	1	Small Mobile	The solar array foundation is anticipated to be adfreeze or rock socket piles, depending on the results of the geotechnical study. The pile driver will be used to install the piles.
Flat bed truck with telescopic crane	1	38' x 10'	Solar cells and inverters and associated solar equipment will arrive by sealift in 20' seacans. The flatbed truck will be used to transport the equipment in the seacans to site, and the crane will be used to load and unload the equipment.
Excavator	1	TBD	The excavator will be used to carry out the civil earth work needed to create the pad foundations for the batteries and e-houses.
Gravel Truck	2	25' x 9'	Gravel will be needed for the pad foundations for the batteries and e-houses.

Detail Fuel and Hazardous Material Use

Detail fuel material use:	Fuel Type	Number of containers	Container Capacity	Total Amount	Units	Proposed Use
Diesel	fuel	2	50	100	Gallons	Diesel for on-site generators to supply power during construction.
Lithium Iron Phosphate Batteries	hazardous	2	35	70	Cubic Meters	Energy storage and electricty grid stabilization

Water Consumption

Daily amount (m3)	Proposed water retrieval methods	Proposed water retrieval location

0		

Waste

Waste Management

Project Activity	Type of Waste	Projected Amount Generated	Method of Disposal	Additional treatment procedures
Equipment installation	Combustible wastes	20-30 m3	Burn pallets and cardboard, or make them available to people who may need pallets, as construction proceeds.	As the waste is non-toxic and non-hazardous, no further treatment procedures are required.
Equipment installation	Non-Combustible wastes	10-20 m3	Non-recyclable construction waste will be taken to the local landfill. Recyclable or reusable waste will be shipped out of the community.	As the waste is non-toxic and non-hazardous, no further treatment procedures are needed.
Equipment installation	Sewage (human waste)	5000 gal per season	Port-a-potties or similar will required onsite during construction.The port-o-potties can be emptied at regular intervals by the Hamlet sewage truck, undersupervision and direction of the Hamlet.	Collected waste would be transportedto the Hamlet's sewage lagoon for appropriate disposal.

Environmental Impacts:

To the best of the team’s knowledge, the preliminary review of the project footprint has not identified any species at risk, nesting grounds, or areas of elevated ecological sensitivity. The site does not overlap with protected or ecologically significant areas, nor with known wildlife corridors. During construction, the following impacts have been identified: • Noise and visual disturbance to migratory and non-migratory birds and other wildlife, particularly during peak construction activities. • Potential adverse impacts on surface water quality due to sediment runoff or accidental releases. • Disturbance to vegetation and topsoil, which could impact soil stability and habitat cover. • Permafrost disruption. • Exposed rock or soil materials from the quarry might release acidic water and harmful metals when disturbed. During operation, the presence of hazardous material in the form of a battery has been identified. To mitigate this hazard, more stable and environmentally safe solid-state LiFePO4 have been selected. Mitigation Measures Pollution and Waste Management All hazardous and non-hazardous waste will be managed to prevent environmental release and harm to wildlife. Waste will be segregated, stored, and transported according to territorial and federal regulations. Fuel and Chemical Handling Fuel and Chemical Storage: Fuel will be stored in compliance with regulatory standards, using secondary containment systems and spill kits readily available at storage areas. Personnel will be trained in spill response procedures, and fueling activities will be monitored and recorded. Surface and Groundwater Protection Erosion and sediment control measures will be implemented to protect nearby water bodies. Construction activities will be timed and designed to reduce the potential for runoff or sedimentation. Site Restoration The Proponent commits to restoring disturbed areas to a natural condition, including revegetation where feasible

Additional Information

SECTION A1: Project Info

Access to the solar array site can currently be done via an unmaintained access road that goes as far as the LORAN site. Re-grading this road will be part of a future NIRB application that includes a plan for crossing a char-bearing river along the way. That project requires significant work and studies, and will warrant it's own separate infrastructure project and permitting process.

SECTION A2: Allweather Road

N/A - a permanent all-weather road is not a component of this project. Construction is anticipated to occur seasonally.

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

Based on the first geotechnical investigation (2023) and preliminary results from the second geotechnical study, the following site characteristics are present:- The site is located approximately 130 meters east of the Coronation Gulf and has an area of approximately 35.6 acres. Ground surface elevations range from 6 meters above seal level (mASL) to 15 masl. The change in elevation is predominantly due to an outcrop southwest of the site, asthe site is generally flat.- Surface water pooling and a bedrock outcrop are present on site.- A surficial layer of topsoil was encountered at most test pits, up to depths ranging from approximately 0.10 mBGS to 0.15 mBGS, with the exception of two (2) test pits where layers of boulders and cobbles were observed at the surface.- Light brown sand and gravel, gravelly sand to sandy gravel was encountered in half the test pits, while the other test pits were layers of brown silt and sand/silty sand and sandy silt.- Bedrock was not encountered at any of the twelve (12) test pit locations investigated in 2023. Based on preliminary results from the geophysical analysis, bedrock surface likely varies from 5 mBGS to 8 m BGS across most of the site, with some areas as shallow as 2 mBGS to 4 mBGS. Itgenerally shallows from east to west. The maximum depth to bedrock is likely 10 mBGS to 12 mBGS. This will be confirmed during the geotechnical field investigation in summer 2025.- Depths to permafrost ranges on average between 1 and 2 mBGS.- Most test pits were dry, except for two (2) test pits located on the northwest side of the site where groundwater levels were at 0.5 mBGS.- Cambridge Bay lies withing a zone of continuous permafrost. Cambridge Bay has a mean annual air temperature of -13.9 o C (1976-2005), which is expected to rise to -10.7o C for the period of 2021-2050.

Description of Existing Environment: Biological Environment

The region is characterized by moist tundra dominated by low shrubs, forbs, grasses, and cryptogams. Approximately 150 species of vascular plants are found in the area. The arthropod community nearCambridge Bay is relatively diverse, comprising hundreds of insect and spider species. Cambridge Bay serves as a key fishing area for Arctic char and lake trout, supporting a small commercial fishery. SouthernVictoria Island is an important staging and nesting habitat for numerous migratory bird species, especially shorebirds, and supports healthy populations of caribou, muskoxen, Arctic hares, Arctic foxes, and Arcticwolves.Cambridge Bay serves as a vital habitat for numerous migratory bird species. The Ahiak Migratory Bird Sanctuary, located south of Cambridge Bay, is Canada's largest federally protected nature preserve andsupports one of the world's largest concentrations of nesting geese. A total of 79 bird species

have been documented in the Cambridge Bay area, with common sightings including Thayer's Gull, Sabine's Gull, King Eider, Long-tailed and Parasitic Jaegers, various shorebirds, and Pacific Loon.To the best of the team's knowledge, the preliminary review of the project footprint has not identified any species at risk, nesting grounds, or areas of elevated ecological sensitivity. The site does not overlap with protected or ecologically significant areas, nor with known wildlife corridors. This assessment will be further confirmed through upcoming engagement with the local Hunters and Trappers Organization (EHTO).Nonetheless, the project team remains committed to the monitoring and adaptive management of the site. Any incidental findings of environmental sensitivity during construction will trigger a review andapplication of enhanced mitigation measures as necessary.

Description of Existing Environment: Socio-economic Environment

The selected project site lies within municipal boundaries and was identified in collaboration with local leadership as a preferred location for development.- The chosen site received broad approval, with many participants noting it is not heavily used and is visually unobtrusive.- The area is bordered by two trails leading to Back Point and Aptalok Bay. While there were concerns about potential disruption during construction, the project design ensures continued public access and protection of these trails and surrounding tundra. Any disturbance will be restored post-construction.- The site falls within municipal boundaries and has received formal approval from the municipal council. The land has been officially transferred from municipal reserve, and a lot number hasbeen obtained. Although the site is bordered by two trails leading to Back Point and Aptalok Bay, these trails are not expected to be significantly impacted. The project design prioritizes protection of surrounding tundra and trail access. Any temporary disruption during the construction phase will be mitigated and the site restored upon project completion.Based on community engagement activities carried out in 2024, feedback from local knowledge holders and the Archeological Impact Assessment (Nunami Stantec Limited, 2025):• Community members did not identify the area as being used for hunting, fishing, harvesting, or other traditional activities.• No concerns were raised regarding harvesting grounds or the presence of burial sites, caches, or culturally significant land uses.• The Archeological Impact Assessment recorded six new archaeological sites; all located outside of the project area.• No impacts are anticipated on traditional travel or harvesting routes.Community consultation confirmed that the site does not hold cultural significance. Although outside of the project area, the archaeological sites identified through the Archaeological Impact Assessment will be actively avoided during both construction and operation of the project. If any future development proposes to disturb these sites, further archaeological investigation will be undertaken in accordance withapplicable regulations.The introduction of a large-scale renewable energy infrastructure in Cambridge Bay presents an opportunity for long-term economic development and community prosperity. The preliminary analysishighlights significant potential impacts across various economic indicators during both the construction and operation phases of the project.The project is expected to generate both direct and indirect employment opportunities during construction and operations. Although precise figures are still being finalized, a significant share of the construction-phase budget is expected to be allocated to local contractors, suppliers, and service providers. The specific breakdown of these allocations will ultimately depend on how the developer's general contractor manages the project. This may include activities such as civil construction, logistics, equipment handling, accommodations support, and related services.

Miscellaneous Project Information

Identification of Impacts and Proposed Mitigation Measures

Social Impacts: The project is not anticipated to generate adverse social impacts, provided that access is maintained and mitigation measures are implemented. No significant issues related to land use, cultural resources, or social services were identified during the engagement process. The project is expected to support broader community goals related to infrastructure improvement and clean energy development.Environmental Impact: Construction PhaseConstruction activities—such as the transportation of personnel and equipment, road access improvements, and the installation of the solar array—may temporarily disturb the environment. Identified potential adverse effects include:• Noise and visual disturbance to migratory and non-migratory birds and other wildlife, particularly during peak construction activities.• Potential adverse impacts on surface water quality due to sediment runoff or accidental releases.• Disturbance to vegetation and topsoil, which could impact soil stability and habitat cover.• Permafrost disruption.• Exposed rock or soil materials from the quarry might release acidic water and harmful metals when disturbed. Operation PhasePermafrost Degradation: Through consultation with permafrost experts,there are concerns that this option may pose a risk to the infrastructure under certain

future climate change scenarios due to the destabilization of the permafrost. Unplanned permafrost degradation can significantly affect solar panel foundations, reducing their lifespan and increasing maintenance costs. Additionally, the impact of the solar infrastructure on the permafrost and ground surface over the long term is not well understood. To our knowledge this kind of analysis has neverbeen done in Nunavut for large scale renewable energy projects. The Proponent has identified the following risks:- The solar panels, racking, and foundations might cause significant heat transfer to the ground, due to their high thermal conductivity. Heat transfer could have a significant impact on the active layer, especially considering our warming climate. Foundation piles are made of steel andpenetrate deep into the permafrost, often into bedrock. These piles can introduce a heating effect deep into the permafrost disrupting what was previously continuous permafrost which would thaw adjacent ice lenses.- Solar infrastructure, specifically racking designs with geoballast foundations, has significant potential to create snow accumulation and drifting as a result of introducing obstructions on previously and otherwise wide-open tundra. Snow accumulation will insulate the ground against the deep winter cold, preventing it from being exposed to the effects of deep-freezing, and as such deepening the active layer. In turn, high winds contribute to thinner snow covers which helps protect the permafrost.No other measurable environmental effects are anticipated during the operational phase. The solar array and supporting infrastructure are passive and non-emitting, and routine maintenance will be limited inscale and frequency. The physical footprint will remain unchanged, and no further disturbance to land, water, or wildlife is expected.Mitigation MeasuresPermafrost disruptionThe Proponent applied to and received funding from the Climate Preparedness in the North Program (CCPN). Under this funding program, our team is exploring alternative designs, such as pile foundations,that are more resilient to climate change. This requires a comprehensive analysis of permafrost conditions and climate sensitivity of the site to fully understand the subsurface environment. Additionally, the impact of the solar infrastructure on permafrost, which may exacerbate the effects of climate change, is not currently well understood. The Proponent is currently conducting an in-depth study to:- Collect additional geotechnical and climate data to inform the design of the solar array foundations.- Install permafrost monitoring stations to capture pre-construction baseline data and to assess potential permafrost degradation resulting from the installation of the solar infrastructure, if any.This work will be submitted under another NPC/NIRB application.- Conduct a snow drifting study before and after construction.Capturing baseline permafrost and active layer performance data ahead of construction is critical for understanding the true effects of the infrastructure on the site. Preliminary results can be shared with NIRB upon request.Acid Rock Drainage (ARD) and Metal Leaching (ML) AnalysisDuring the Phase I ESA site visit, Nunami Stantec will evaluate the ARD/ML potential of the quarry materials intended for project use and will collect surface water samples (if present) from two unique locations: (1) water that has been in contact with the quarry material at the proposed quarry source, and (2) water from areas where quarried rock has previously been used in road, bridge, or culvert construction. Water sampling at the quarry will provide baseline geochemical data on the unaltered source material,helping to predict its ARD/ML potential prior to future use. In contrast, sampling water near previous construction sites will provide some information about the actual ARD/ML potential of the material underfield conditions, where it is exposed to weathering, runoff, and mechanical disturbance.OthersThe Proponent further undertakes to prevent new occurrences of pollution, garbage, or contaminationand to remediate any incidental impacts during the course of the projectBattery leakage: Solid-state lithium batteries that would be used for this project represent a significant advancement in safety over traditional liquid electrolyte batteries. Unlike their liquid filled counterparts,solid-state batteries using the latest chemistries, such as the proposed lithium iron-phosphate, use solid components which eliminate the risk of liquid leakage, reduce the risk of thermal runaway in faulty conditions, and greatly reduce the likelihood of fire and explosions. Consequently, solid-state batteries offer a more stable and safer option, particularly in large-scale energy storage applications where safety and reliability areparamount. Proper maintenance routine and predictive maintenance will be planned and implemented in collaboration with the equipment manufacturers. There may be special considerations for first responders such as the fire department responding to the BESS. However, those specific instructions will be created in the construction phase of the project, as exact battery chemistry may vary.

Cumulative Effects

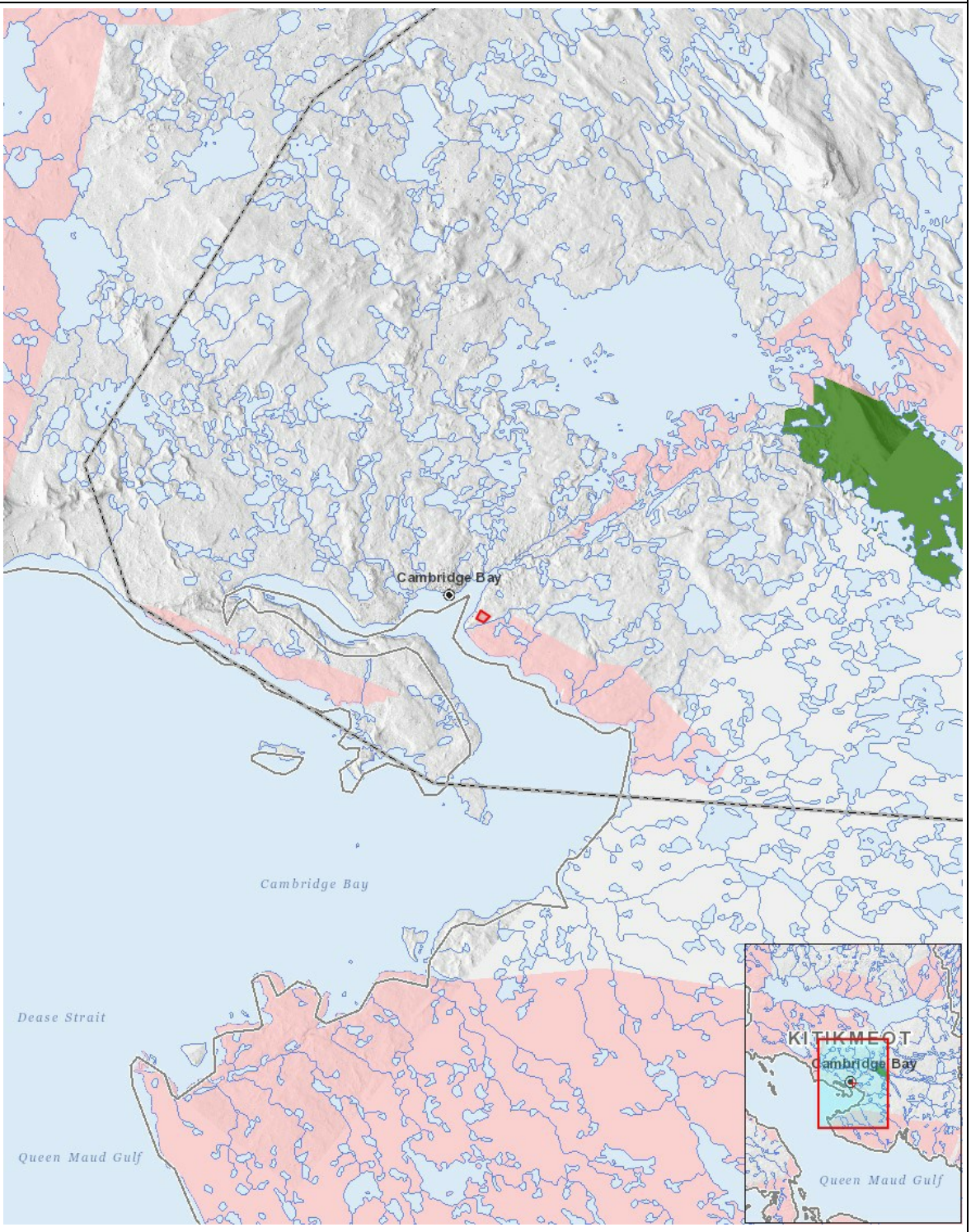
Given the low frequency of commercial and utility scale solar projects in Nunavut, this project is not expected to add significant cumulative effects to past and present developments in the region. Decommissioning is the time at which permanent impacts on the community would be left. To decrease impact from this project and avoid adding to cumulative impacts of end-of-life projects, the major recyclable and hazardous components will be removed from the community (PV panels, batteries, power electronics, and possibly steel and aluminum from racking and foundations).

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																									
Drilling		-	-	M	-	-	-	-	-	-	-	M	N		M	-	-	-	-		-	P	P	P	-
Equipment installation		-	-	M	-	-	-	-	-	-	-	M	N		M	M	M	-	-		-	P	P	P	-
Staging areas		-	-	-	-	-	-	-	M	-	-	-	-		M	-	-	-	-		-	P	P	P	-
Operation																									
Drilling		-	-	M	-	-	-	-	-	-	-	-	-		-	-	-	-	-		-	-	-	-	-
Equipment installation		-	-	M	-	-	-	-	-	-	-	P	P		-	P	P	P	-		-	P	P	P	P
Decommissioning																									
Drilling		-	-	M	-	-	-	-	-	-	-	M	N		M	M	M	-	-		-	P	P	P	-
Equipment installation		-	-	M	-	-	-	-	-	-	-	M	N		M	M	M	-	-		-	P	P	P	-
Staging areas		-	-	-	-	-	-	-	M	-	-	-	-		M	-	-	-	-		-	P	P	P	-

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

Project Location

List of Project Geometries
1 polygon Array Area Location 2