

Nunavut Impact Review Board’s Report and Recommendations In Relation to the Back River Energy Centre Proposal —April 12, 2024



Nunavut Impact Review Board Public Hearing in Cambridge Bay, Nunavut, February 2024

The Nunavut Impact Review Board (NIRB or Board) has completed its assessment of B2Gold Back River Gold Corp (B2Gold)’s “Energy Centre Proposal” (the Proposal). After considering the potential positive and negative environmental and socio-economic impacts of the Proposal, the Board is recommending that: **the Energy Centre Proposal should be allowed to proceed at this time with updates to the Terms and Conditions in Project Certificate 007**. The Board’s Reconsideration Report provides more details about the Proposal, B2Gold’s assessment of potential effects, comments received from participants in the assessment, including the views of potentially affected Kitikmeot communities, and the Board’s views and recommendations.

Project Summary:

Related Project:

Back River Project

Proposal:

Energy Centre Proposal

Proponent:

B2Gold Back River Gold Corp

NIRB File No.: 12MN036

Online Document Registry:

www.nirb.ca/project/125740

Highlights Document

This document is a plain language summary of the Board’s Reconsideration Report and Recommendations (called “the Report”), and includes references to guide the reader to the section of the Report that provides the full detail. The Report is the authoritative version of the Board’s decision. If there are inconsistencies between the description in the Report and this document, the wording in the Report governs.



What is a “reconsideration” of an approved Project?

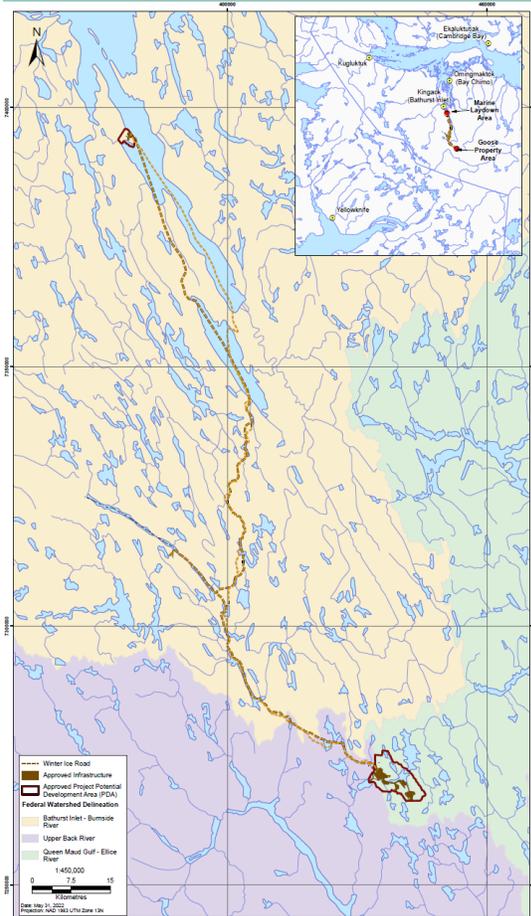
- Report Section 1.2

In the Energy Centre Proposal, B2Gold proposed adding alternative energy infrastructure to the previously approved Back River Project. The Nunavut Planning Commission and NIRB determined that these changes were a “significant modification” to the approved Back River Project assessed by the Board in 2015 and 2017, and required updated assessment of the potential impacts of the new activities and reconsideration of the Terms and Conditions in the Project Certificate. Potentially impacted communities, regulators and government departments, the Kitikmeot Inuit Association, and other interested parties participated in the Board’s reconsideration.

What is a Project Certificate?

A list of conditions issued by the Board, that guide a Proponent and regulators in implementing mitigation and monitoring for a project, and which aim to identify and reduce negative impacts to the environment and communities

Project History - Report section 1.3



Back River Project Location

The Back River Project

B2Gold is currently operating the Back River Project located in the Kitikmeot region of Nunavut. The Project is located approximately 400 kilometres (km) (249 miles) southwest of the community of Cambridge Bay, 95 km (59 miles) southeast of the southern end of Bathurst Inlet, and 520 km (323 miles) northeast of Yellowknife, Northwest Territories. The Back River Project includes 2 main areas; the Goose Property and the Marine Laydown Area. The Goose Property will include 4 mineral deposits: Umwelt, Llama, Echo, and Goose Main, as well as all associated mining and camp infrastructure. The Marine Laydown Area is located along the western shore of southern Bathurst Inlet and includes fuel storage, barge laydown area, and camp facilities. The 2 mine areas are connected by a Winter Ice Road that operates from mid-January to April .

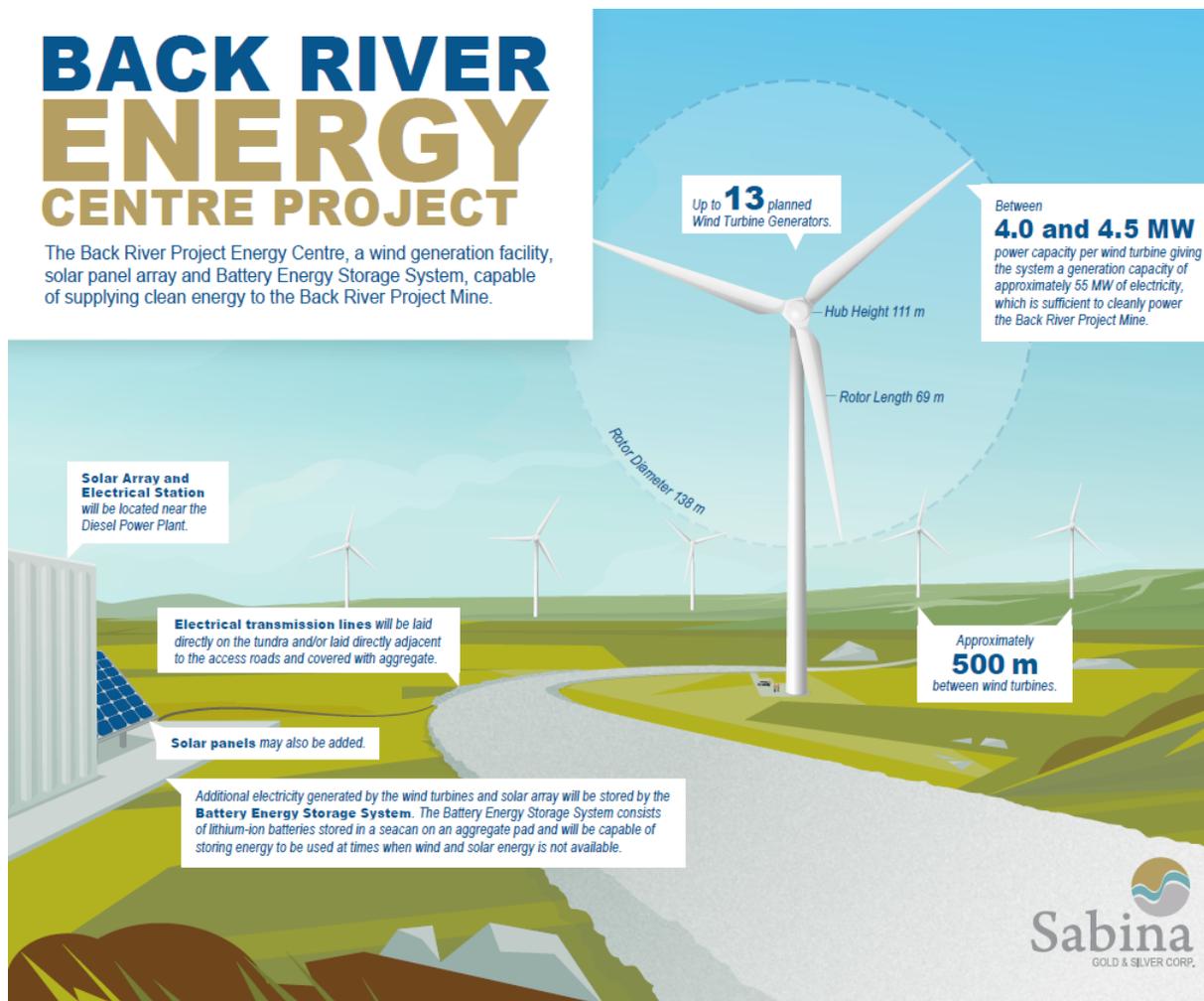
Current Amendment: Energy Centre Proposal

- Report Section 1.4

The Energy Centre Proposal is a proposed change to the approved Back River Project that includes the construction of a windfarm, solar array, and battery energy storage system in the Goose area. These proposed changes would reduce Project greenhouse gas emissions by reducing fuel use by approximately 50% as well as reducing fuel truck trips on the Winter Ice Road from the Marine Laydown Area by approximately 700 one-way trips (350 round trips).

The Proposal includes:

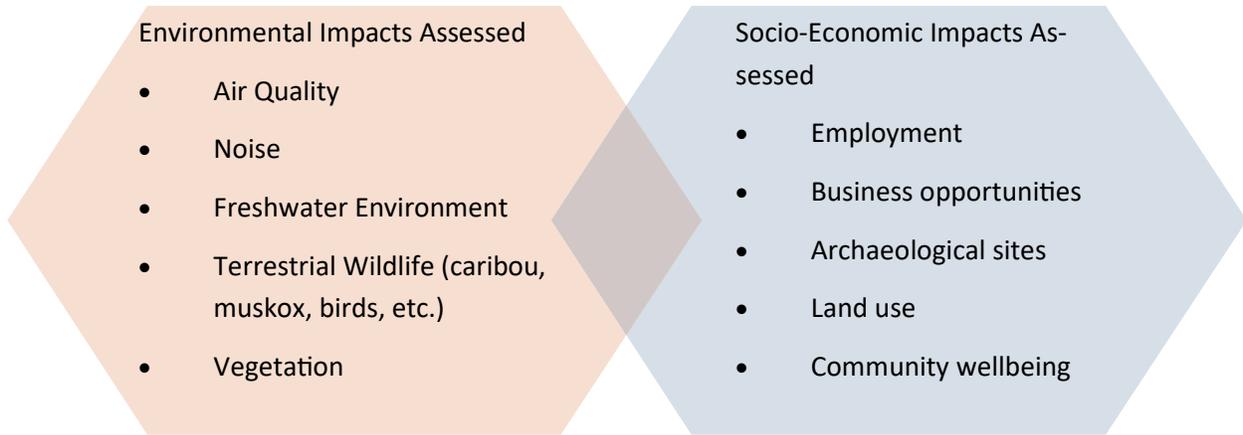
- Expansion of the existing Back River Project Development Area
- Construction and use of 13 Wind Turbine Generators
- Construction of access roads and transmission lines to the Wind Turbine Generators
- Construction of an Electrical Station and a solar array (200 metres by 400 meters or 656 feet by 1,312 feet)



B2Gold's Assessment

- Report Section 2

B2Gold's 2023 Impact Statement Addendum describes its assessment of the potential environmental and socio-economic impacts of the Energy Centre Proposal:



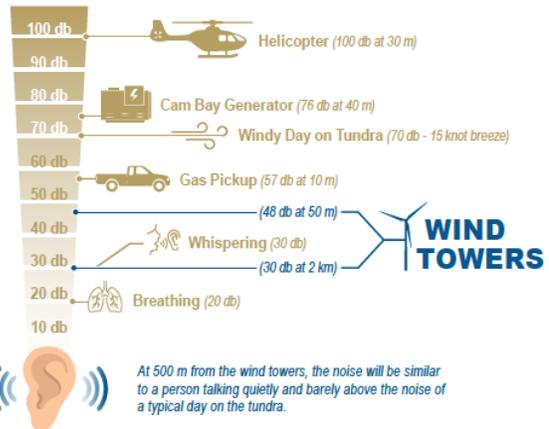
B2Gold concluded that the limited potential effects could be addressed with the current Terms and Conditions of the Back River Project Certificate No. 007 and the development of an appropriate monitoring program and implementation of mitigation measures.

KEY MITIGATION

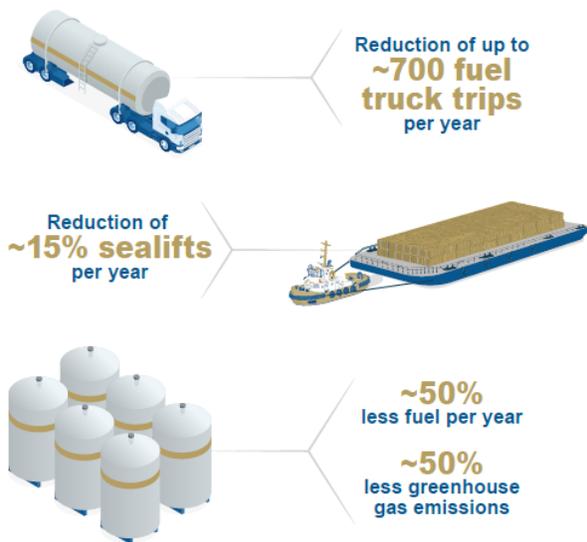
- Noise will attenuate to 45 db by 500 m, which will not disturb animals (see Noise to right).
- The wind towers will be shut down when groups of caribou approach during sensitive seasons.
- Behavioural and avoidance monitoring will determine if caribou are bothered by the wind tower and allow for adaptive management.
- The wind towers will be shut down during peak bird migration, at night during fog – research worldwide has shown that this combination of conditions can be dangerous for birds around wind towers.
- Monitoring will look for bird mortalities due to the wind towers and allow for adaptive management.

NOISE

Sabina conducted noise modeling to determine how loud the wind towers will be at various distances. Noise is measured in decibels (db) which is a logarithmic scale. That means the noise you hear doubles with every 7 db.

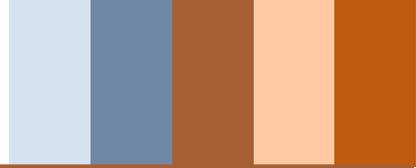


BENEFITS



HEIGHT COMPARISON

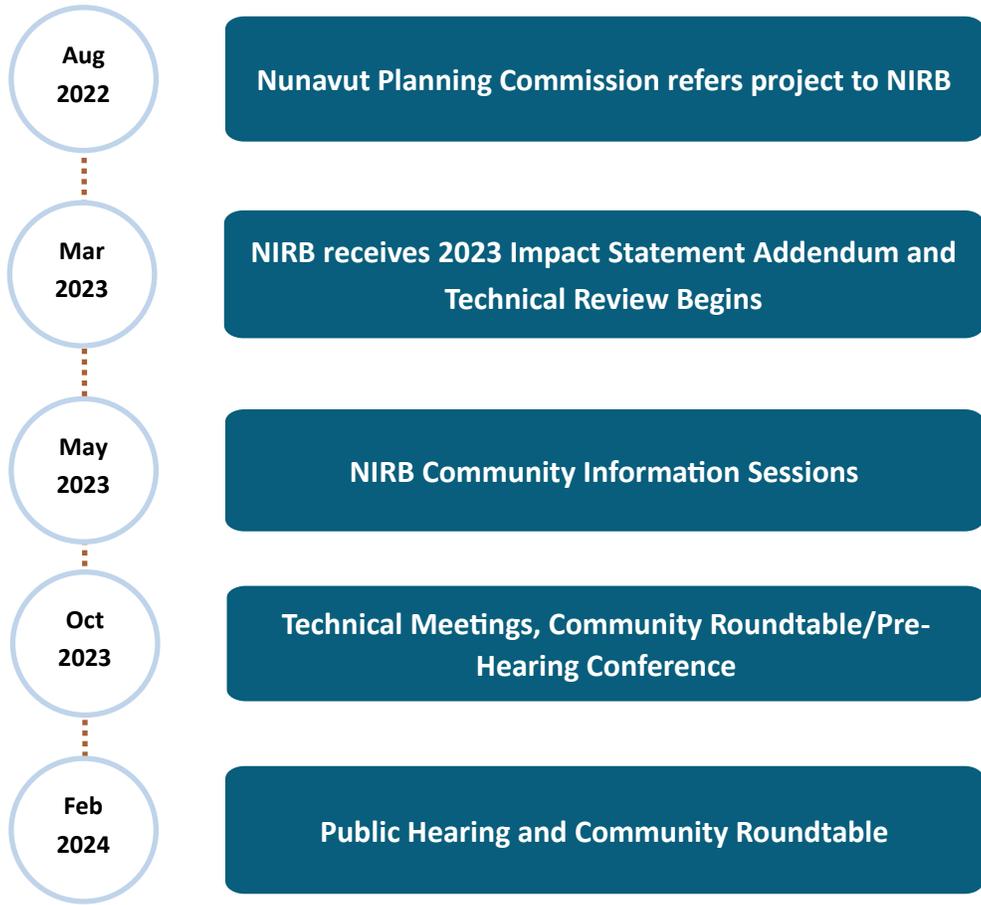




Procedural History of the Project Proposal

- Report Section 1.5

The key procedural steps that occurred throughout the NIRB’s assessment:



Simulation of the wind turbines viewed from 5.5 km (3.4 miles) south at the western tip of Goose Lake—source B2Gold

Engagement Opportunities

- Report Section 1.5.2

Community Engagement:

Information Sessions (afternoon open house and evening meetings) in Cambridge Bay, Gjoa Haven, Kugaaruk, Taloyoak

Community Roundtable Sessions (at the Pre-Hearing Conference and Public Hearing) in person community representatives from potentially affected communities in the Kitikmeot (both) and Northern Saskatchewan (PHC only)



Cambridge Bay Community Meeting, June 2023



Gjoa Haven Community Meeting, May 2023

Involvement of Intervenors and Regulators:

Opportunities for written feedback:

- Information Requests
- Technical Review Comments
- Final Written Submissions

1 Technical Meeting

1 Pre-Hearing Conference

1 Public Hearing



Technical Meeting, Community Roundtable and Pre-Hearing Conference, November 2023

The Public Hearing

- Report Sections 3 and 4

The Public Hearing was held in Cambridge Bay, from February 27-29, 2024. It included technical sessions and a Community Roundtable.



Public Hearing Community Roundtable, February 2024

Intervenors at the NIRB Public Hearing:

In person

Nunavut Tunngavik Incorporated
 Kitikmeot Inuit Association
 Government of Nunavut
 Crown-Indigenous Relations and Northern Affairs Canada
 Health Canada
 Transport Canada

On-line

Government of Northwest Territories
 Environment and Climate Change Canada
 Fisheries and Oceans Canada
 Natural Resources Canada

Community Representatives:

- Kingaok
- Omingmaktok
- Cambridge Bay
- Kugluktuk
- Gjoa Haven
- Kugaaruk
- Taloyoak



Public Hearing Community Roundtable, February 2024



Benefits and Impacts of the Energy Centre Heard by the Board – Report Sections 3, 4 and 5

Wind Turbines and Caribou



Communities

- Emphasized the importance of protecting caribou due to their importance to Inuit culture, health, and well-being
- Caribou may avoid areas where unfamiliar movement and/or light from the wind turbines would be seen.
- Caribou can see and hear better than humans and are sensitive to vibration.

Intervenors

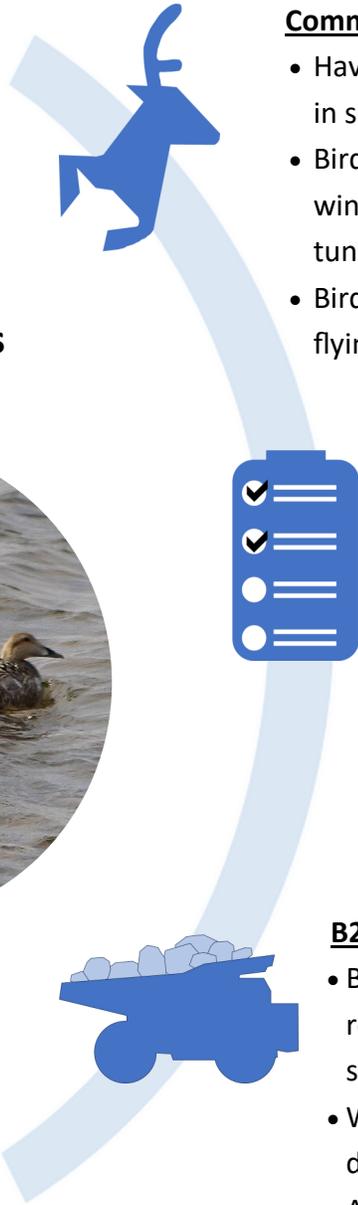
- Caribou are able to hear low frequency noise and vibration from great distances.
- Caribou have been shown to react to similar visual disturbances up to 5 km (3.1 miles) away.

B2Gold

- Modelling for noise and motion used “worst-case-scenario” data to ensure mitigation is conservative.
- Currently, the mine/proposed location of the wind turbines is not frequently visited by caribou as evidenced by caribou monitoring and according to local observers.

“[I]t’s our way of life, our food. From the time I was born, my parents harvested, my grandparents harvested. And still today we join the harvest. So any change, sudden changes will do some changes to our migrating animals.” - Barnaby Immingark, Kugaaruk

Wind Turbines and Birds



Communities

- Have seen that wind turbines kill birds in southern Canada.
- Birds may be attracted to nest on the wind turbines due to their height on the tundra.
- Birds may collide with wiring if they are flying at night.

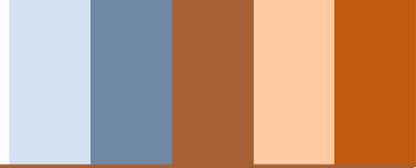
Intervenors

- Wind turbines have been known to cause mortalities in migrating birds in other jurisdictions.

B2Gold

- Bird safety has been considered with results from bird studies from the south and from the Diavik mine.
- Wind turbine materials are not desirable for nesting birds.
- All wiring will run along the ground and will not be in the flight path of birds.

“The wind turbines are going to be at a great height. I think for sure that that's going to cause a problem for migratory birds “ - Joe Ashevak, Taloyoak



Wind Turbines and Other Wildlife



Communities

- People hunt moose in areas around the Marine Laydown Area, Winter Ice Road, and mine site, yet moose were not specifically addressed by the Proponent.
- Foxes, wolves, muskox etc. are also an important part of Inuit economy, but were not specifically addressed by the Proponent.

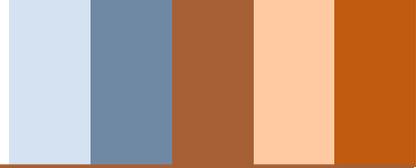
Intervenors

- The Proponent must ensure clear fish passage for any new infrastructure in or affected watercourses with fish.

B2Gold

- Moose and muskox are discussed in the 2015 Final Environmental Impact Statement and 2017 Final Environmental Impact Statement Addendum.
- Wildlife Plans provide mitigation for interactions with other wildlife species.

"[W]e have been hunting the moose these past several years since we cannot hunt the barren-ground caribou due to the tags allocation to other communities. Our concern is that once the wind farm is in place, the decline will happen with the moose as well." - Peter Kapolak, Omingmaktok



Socio-Economic Impacts



Communities

- Community members are not invited to participate or be informed about the results of Caribou Technical Advisory Group (CTAG) discussions.
- Benefits of the mine may be short-term, but negative impacts on the land, water and wildlife would last much longer.
- Communities in the Western Kitikmeot appear to receive more funding and resources than communities in the Eastern Kitikmeot.

Intervenors

- The CTAG should include local/ Inuit voices.
- The CTAG should hold update meetings with communities.
- Changes to project activities may reduce the number of positions available to local employees (as the number of truck trips drops).

B2Gold

- The Inuit Environmental Advisory Committee (IEAC) is used to collect Inuit Qaujimagatuqngit to advise the Project, while the CTAG was created by the KIA under the Inuit Impact Benefits Agreement to validate information among biologists.
- B2Gold intends to be a long-term employer in the Kitikmeot Region and has strict requirements to clean up the land during reclamation.
- B2Gold's funding does not differ between Kitikmeot communities.
- Local employment commitments remain the same with the change in activities. Retraining is planned and includes providing Employee Assistance Program.

"[W]e've always been treated as second-class people in the eastern Kitikmeot ... It's like there's a border wall between east and west of Kitikmeot" - Joe Ashevak, Taloyoak

Conclusions and Recommendations of the Board – Report Sections 5, 6, and 7

After careful consideration of all the technical comments and information, Inuit Qaujimagatuqangit and Indigenous Knowledge provided throughout the assessment, **the Board recommended that the Energy Centre Proposal should be allowed to proceed at this time with updates to the Terms and Conditions in Project Certificate 007, to enhance various aspects of Project monitoring, mitigation and adaptive management planning.**

Views of the Board: Renewable Energy in Nunavut

The Board supports renewable energy projects in Nunavut due to the potential environmental benefits that these technologies can provide, including improvements in air quality, reduction in greenhouse gas (GHG) emissions, and reduction in fuel trucking traffic. The Board also understands that these benefits must be weighed against potential risks to other valued ecosystemic and socio-economic components.

The Board views the Back River Energy Centre as a good opportunity to introduce large-scale renewable energy projects into Nunavut. The Energy Centre is not located in sensitive wildlife habitat or heavily-used hunting grounds, and the location has received support from the Inuit Environmental Advisory Committee (IEAC). The Proponent's strong commitments to mitigation and monitoring give the Board confidence that potential negative impacts can be identified and managed. The Board hopes that this renewable energy project can be used as a positive learning opportunity and encourage future developments in Nunavut to be planned and constructed responsibly.

"[T]he endeavour can be a gateway for green energy projects in Nunavut, and it needs to be done right, because there will be future projects like this." - Amanda Dumond, Kugkultuk



