

MEMORANDUM: GOVERNMENT OF CANADA SUPPORT FOR ELECTRIC TRANSMISSION AND FIBREOPTIC DEVELOPMENT IN NUNAVUT'S KIVALLIQ REGION

TO: Standing Committee on Finance of the Government of Canada

FROM: Kivalliq Inuit Association & Anbaric Development Partners

RE: Overview of the **Kivalliq Hydro-Fibre Link** (Manitoba to Nunavut)

DATE: August 3, 2018

A. Brief Description of the Project

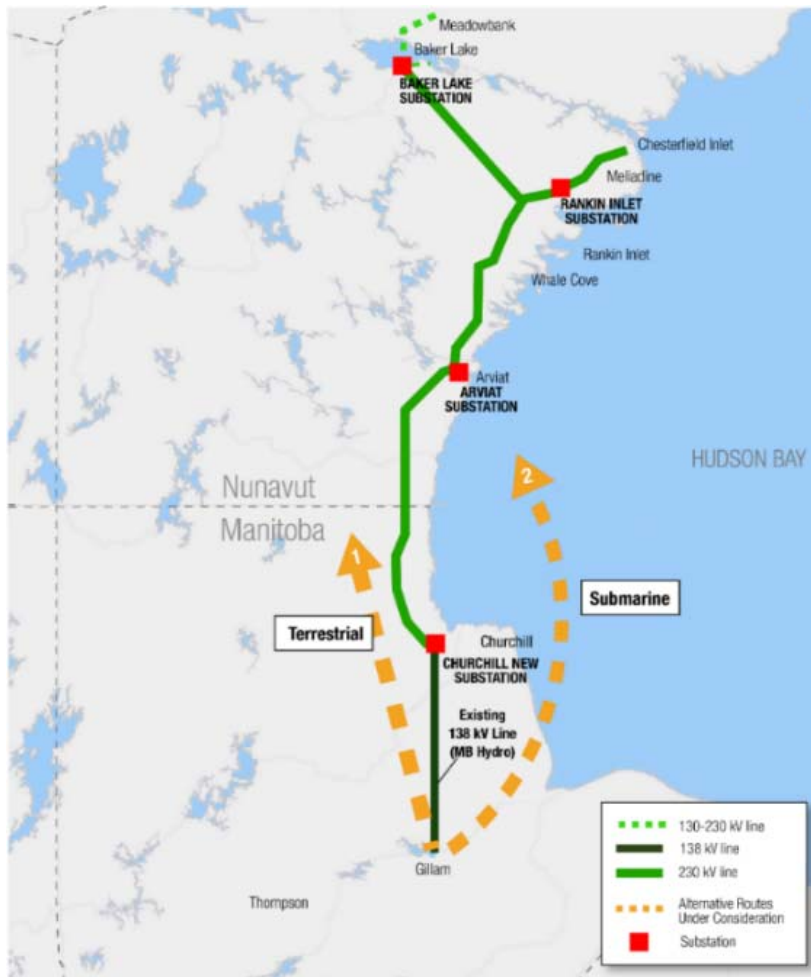
The **Kivalliq Hydro-Fibre Link** (the “Project”) involves the construction of a new overhead, 230-kilovolt, alternating current hydroelectric transmission line between Manitoba and Nunavut that will serve five Kivalliq region communities, as well as operating and future mine sites in this mineral-rich region of Northern Canada. Importantly, it will also deliver high-speed internet via fibreoptic cable to the region for the first time, helping to improve telecommunications for businesses and for public service delivery. The preliminary route, studied by BBA Engineering of Montreal in 2015¹, calls for a 900-kilometer, \$ 1 billion project that will deliver power to Nunavut’s crown distribution company, the Qulliq Energy Corporation, at an approximately 30% lower cost than the status quo, that is, barged-in fuel supplying aging diesel generators. Other routes and transmission configurations are currently being investigated. The federal government and the government of Nunavut stand to benefit from these cost savings as the current power from diesel generation is heavily subsidized.

The Project prepares the communities and mines for the coming federal price on carbon, in particular by helping them convert facilities to electric heat sources. The Project will help the Nunavut and the federal government meet their shared goal of serving more reliable power while reducing carbon emissions and creates opportunity for additional mining and sustainable economic development in the Arctic. It will also help accomplish major infrastructure and environmental goals of the local Kivalliq Inuit Association, which represents the seven communities of the region. The Project opens up a new and long-term market for Manitoba Hydro, and accomplishes northern development goals for the province of Manitoba. The Project could serve as a focal point of the forthcoming update of the federal Arctic Policy Framework. The financial structure of the Project could be similar to the financing of the Watay Power project in northern Ontario, now under development, which obtained a commitment of \$1.6 billion from the federal government.

The Project could begin commercial operations in January 2024. To ensure the project can proceed the Kivalliq Inuit Association is seeking support from the federal government to become equity partners in this vital infrastructure project.

¹ The study is available online: *Nunavut-Manitoba Hydro Line Study*
<<https://www.scribd.com/document/283884813/Nunavut-Manitoba-Hydro-Line-Study#download>>.

B. Kivalliq Hydro-Fibre Link Preliminary Route Overview



The Project is designed to serve as the future ‘electric backbone’ of the Kivalliq region, providing clean power to communities as well as current and future industrial demand in the resource-rich area. The preliminary route studied by BBA, represented by the green line in the graphic to the left, extends 615 km from Churchill to Rankin Inlet and delivers power to four coastal communities along Hudson Bay, as well as Agnico Eagle’s Meliadine mine site slated to open in mid-2019. A spur line will carry electricity 280km from Rankin Inlet to Baker Lake to supply Agnico Eagle operations in and around Meadowbank. In this configuration, new substations will be located at Churchill, Arviat, Rankin Inlet and Baker Lake, indicated by red squares in the graphic at left.

This preliminary route could change significantly as Manitoba Hydro, the Manitoba Dene, and the Kivalliq Inuit begin a more in-depth development process. This is especially so because the Kivalliq Inuit and First Nations of the region have begun to assess an alternative, preferred pathway from northern Manitoba into Nunavut as part of an ongoing treaty and land claims negotiations process. Anbaric, an expert in HVDC technologies, also wishes to assess the viability of a submarine cable route. These latter two alternative proposals are represented by the orange, dotted lines in the above graphic.

C. A Preliminary View of the Development Pathway

An initial “Proposal for Cooperation” was co-signed by the Kivalliq Inuit Association and Anbaric Development Partners in July 2018 (find background on Anbaric in Appendix I). This enables an exploratory process and further, more-detailed project feasibility work.

The Kivalliq Inuit Association has completed a substantial amount of consensus-building work. The Project has letters of support from: 1) the Premier of Nunavut, the Honourable Joe Savikataaq; 2) Mr. Bruno Pereira, CEO of Qulliq; 3) the Minister of Crown Services of Manitoba, the Honourable Cliff Cullen; 4) the President of Agnico Eagle Mines Limited, Mr. Ammar Al-Joundi; 5) Ms. Aluki Kotierk, President of Nunavut Tunngavik Incorporated (the legal representative for the Inuit for the purposes of rights and land negotiations); 6) the Member of Parliament for Nunavut, Mr. Hunter Tootoo;

as well as, 7) a resolution of support from the Hudson Bay Regional Roundtable, which assembles members of the Inuit/Dene overlap negotiations in the region.

This consensus-building work means that the Project could be fast-tracked to a funding decision at a relatively low cost and modest risk compared with other transmission projects which require substantial up-front spending on community engagement, surveying, site control, legal, and permitting work in advance of a binding commitment from a customer.

In working with BBA on a pre-feasibility study, the Kivalliq Inuit Association have, as initial proponents, been able to identify much of the estimated costs and select optimal technologies. In this initial phase of cooperation on development, Anbaric will have to ‘bulletproof’ this pre-feasibility study while gauging federal support, as well as firming up the optimal right-of-way. If the end-goal is to execute a power sales agreement, it is suspected that the government of Canada will have to provide an up-front subsidy to the government of Nunavut in order to improve the project’s internal rate of return and thus attract Anbaric’s private investment. Nunavut would pass this funding on to the Qulliq Energy Corporation. Qulliq would then sign an offtake agreement with a transmission special purpose vehicle corporation, which would be organized and led by the Kivalliq Inuit Association and Anbaric Development Partners. Mining ventures may also sign a bilateral offtake agreement with that entity, or with Qulliq. It is important to note that the fibreoptic cable carried via the project also provides a potential source of revenue.

Major tasks to be completed by the Kivalliq Inuit Association and Anbaric Development Partners in the next 12 months include:

- Complete a technical feasibility study/process that confirms technical and financial aspects of the Project.
- Negotiate a binding, long-term co-development agreement between Anbaric Development Partners and the Kivalliq Inuit Association. Once signed, one of Anbaric’s core responsibilities will be to facilitate private sector investment in this project.
- Kickstart an exploratory process with Manitoba Hydro and the Qulliq Energy Corporation with the goal of rapidly establishing a power sales agreement.
- Assess potential avenues of federal support, with continuing, focused conversations with Crown-Indigenous Affairs, Natural Resources Canada, Environment and Climate Change Canada and Finance Canada, as well as the newly-established Canada Infrastructure Bank.

D. Nation-Building, Reconciliation and the Promotion of Arctic Sovereignty

As part of its Arctic Policy Framework, the government of Canada is developing a policy and spending program to meet the infrastructure deficits of northern communities and industries in collaboration with the government of Nunavut and the Kivalliq Inuit Association. The Project aligns with federal government priorities, including economic development goals, climate change mitigation, and transitioning Nunavut to the coming era of carbon pricing.

The Project also promotes Canada’s doctrine of ‘Arctic sovereignty’. Connecting the Kivalliq communities to the Manitoba grid will provide reliable, clean power and stimulate economic development, especially in the mining sector. Bringing highspeed, fibreoptic connectivity to the region is also incredibly important for commerce and the provision of government services. The Project will help create strong, prosperous communities and a sustainable Canadian presence in the Arctic, a critical component of the nation’s

overall security. The Project also empowers Indigenous peoples as part of an ongoing reconciliation process, bringing them ‘into the boardroom’ in a new manner.

E. Project Champions

The Project will require numerous champions from the federal to the hamlet level. As development partners, the Inuit of the region will be the local champions. Already, the Kivalliq Inuit Association have had an ongoing dialogue with federal cabinet ministers and their staff, and this communication will continue in earnest through the autumn and winter of 2018/19. Mining companies are hoping to control costs as the federal government introduces carbon pricing. The town of Churchill, a probable logistics hub for construction, also has an interest in the completion of the Project. On the ‘buy’ and ‘sell’ sides of the required power sales agreement, Manitoba Hydro and Qulliq will have strong commercial reasons to support the Project. Labour and environmental stakeholders would likewise see that the Project provides long-term economic and environmental benefits. Likewise, involving the government of Manitoba in the development process, and seeking its support in developing the final investment case is also paramount.

F. Timeline

The following section illustrates a potential timeline for the development of the Project:

- 1) July 2018 – Signature of MOU between Kivalliq Inuit Association and Anbaric Development Partners
- 2) Autumn 2018 – Binding term-sheet process between Anbaric Development Partners and the Kivalliq Inuit Association formalizing a commercial partnership
- 3) Winter 2018-19 – Exploratory MOU with Qulliq / Manitoba Hydro
- 4) Winter 2018-19 – Detailed engineering
- 5) Spring and Summer 2019 – Sales agreement / development agreement signed with Manitoba Hydro and Qulliq
- 6) September 2019 – Financial close
- 7) Autumn 2019 – Launch of SPV and beginning of EPC selection process
- 8) Winter 2020-21 – Construction
- 9) Winter 2023/24 – Project commissioning

G. Conclusion

The Kivalliq Inuit Association and Anbaric Development Partners look forward to providing leadership to drive forward the development of the Project. Ultimately, the government of Canada will play a pivotal role in deciding whether the Project will move forward. This decision rests in large part on the longer-term considerations enumerated above. The immediate needs of the Kivalliq Inuit are also significant – three of the five communities must replace their diesel generators in a tight time period, Nunavummiut are anxious to transition off of fossil fuels to reduce greenhouse gas emissions, and the coming price on carbon will harm already fragile community economies in Nunavut. Major investments in infrastructure are the only way to create long-term viability, stability, and prosperity for the region. As such, an investment in this project also serves the overarching goals of reconciliation between the Inuit and the federal government of Canada.

Background on Anbaric Development Partners, LLC

In 2017, Anbaric® and Ontario Teachers' Pension Plan (OTPP) formed Anbaric Development Partners, a Massachusetts-based company that develops large electric transmission systems, re-designs and optimizes electric and heating/cooling systems on campuses, and provides storage solutions in microgrid and other projects. The joint venture is focused on large-scale, transformative projects, such as offshore wind transmission systems in the US northeast. Anbaric's current project portfolio aims to deploy a minimum of \$2 billion USD for OTPP across the US and Canada.

For more on Anbaric Development Partners, please visit: www.anbaric.com