

MINISTRY OF ENERGY, MINES AND LOW CARBON INNOVATION

BRIEFING NOTE FOR INFORMATION

PREPARED FOR: Honourable Josie Osborne, Minister of Energy, Mines and
Low Carbon Innovation

ISSUE: Request for federal government investment in transmission infrastructure to electrify
industry in the North Coast Area

KEY MESSAGES/SUMMARY:

- Expanding transmission access to the North Coast is needed to electrify projects such as the Port of Prince Rupert, critical minerals mining and liquefied natural gas (LNG).
 - BC Hydro is currently developing an Expression of Interest to gauge interest and ensure that a new line is appropriately sized to meet the electrification demand in the North Coast. In advance of launching the Expression of Interest, BC Hydro will be engaging with potentially impacted Nations.
 - Many of the Nations along the proposed transmission line route are members of the First Nations Climate Initiative (FNCI) and/or the First Nations Major Projects Coalition (FNMPC), and have expressed support expanded transmission capacity and Indigenous equity ownership of transmission infrastructure.
 - A commitment by Canada on co-funding the new transmission infrastructure will ensure that there is electrical capacity available to meet federal priorities including: energy security, advancing critical mineral mining and avoiding/reducing significant amounts of greenhouse gas (GHG) emissions not currently in federal or provincial inventories.
 - The request for 50% federal contribution to the approximately \$3 Billion (B) cost of the North Coast transmission line, follows previous discussions that former Premier John Horgan has had with The Right Honourable Justin Trudeau, Prime Minister, and senior provincial officials have had with the Federal Departments of Finance, Natural Resources, and Industry, Science and Economic Development.
 - s.16; s.21
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- British Columbia (BC) and Canada have a history of collaborating on transmission infrastructure under the Investing in Canada Infrastructure Program and are continuing to advance the need for electrical infrastructure investment through the Regional Energy and Resources Tables (RERT) led by NRCan on behalf of federal departments.

MINISTRY RESPONSE:

- BC is seeking to advance a new high-voltage transmission line with an estimated cost of \$3 B, to support low carbon economic development on the North Coast of the Province. Once complete, the new infrastructure will:
 - Electrify new metal and critical mineral mines;
 - Support the expansion of the Port of Prince Rupert for exporting Canada's low embedded carbon goods to our key trading partners; and
 - Electrify value-added natural gas projects including LNG Canada (LNGC) Phase 2 (and retrofit Phase 1), Cedar LNG (Haisla), and Ksi Lisims LNG (Nisga'a).
- I would like our Governments to work together to co-fund this critical infrastructure that can enhance global energy security, support Canada's Critical Minerals Strategy, and reduce or avoid significant greenhouse emissions that are not included in either of our emissions inventories.

BACKGROUND:

Electrification is an essential part of meeting BC's climate objectives. Although BC Hydro has a surplus supply of clean electricity, the ability to transmit the electricity to some areas of the province is constrained, and new electrical infrastructure is required to be able to serve them. This is particularly true in the North Coast.

The North Coast region is served via a single radial line, with limited generation in the region (Attachment A, Figure 1) that runs from Prince George to Terrace. The Prince George to Terrace Capacitors Project (PGTC) will increase the capacity of the radial transmission system from 800 megawatts (MW) to 1,300 MW, an increase of 500 MW or 60%. The federal government committed to providing up to \$96.95 million in grant funding for the PGTC under its Investing in Canada Infrastructure Program. That project is expected to be brought into service by 2027.

The increased capacity provided by PGTC will allow BC Hydro to serve customers that have formally requested electricity service in the North Coast area, but it is not sufficient to supply the significant number of new or expanded projects that have expressed interest in electrifying.

DISCUSSION:

To date, proponents in the North Coast area have expressed interest in electrifying projects, which total nearly 3,000 MW of electricity demand (Attachment B), with nearly half that demand coming from new or expanding metal and critical mineral mining projects and the electrification of region ports.

The aggregate level of interest across all sectors far exceeds the transmission capacity of the existing system and will require adding a second 500 kilovolt (kV) transmission circuit across the three segments of the North Coast radial line at a capital cost of about \$3 B.

BC Hydro's Electric Tariff sets out the terms and conditions for industrial connections to the grid. As part of the interconnection process, BC Hydro identifies any upgrades to its existing

transmission system (known as System Reinforcements) required to supply electricity to a customer's facility. It can be cost prohibitive for one customer to trigger the need for the line and introduces uncertainty as that customer may choose not to advance their facility.

As an alternative to having a single project trigger the need, and to fully understand the scale of the electrification interest, BC Hydro is proposing to use an Open Season approach. The first stage of the Open Season would consist of an Expression of Interest to gauge customer interest and determine customer location and size of electrification needs.

The Expression of Interest would be non-binding and does not require any regulatory amendments or approvals to proceed. Subsequent stage(s) of the Open Season would require a binding commitment of some form from customers seeking transmission capacity on the North Coast. The timing of the commitment would likely be tied to a decision to start construction of the line.

In advance of the Expression of Interest, BC Hydro will be engaging with Indigenous Nations along the route to share the purpose of the Open Season approach and to introduce the potential for partial Indigenous ownership of the transmission line. A number of the potentially impacted First Nations are members of the FNCI and FNMPC, and support the expansion of transmission infrastructure to the North Coast to enable the production of net zero LNG.

BC Hydro's relationships with the 14 Nations that would be impacted by the North Coast transmission line are at various stages based on current and past projects. Achieving consent and consensus among Nations on projects within timelines required to meet customer needs will require innovative approaches.

Recognizing this, a First Nations equity ownership model like what is being done in Ontario by Hydro One could be a structure that both advances reconciliation and facilitates development of the North Coast transmission line in a timely manner.

CONCLUSION

BC would like to continue the collaboration on investing in infrastructure that supports global energy security, advances low carbon exports and supports the development of critical minerals. Such an investment is consistent with Canada's Critical Mineral Strategy and aligns with recent comments from Canada that it is open to supporting "economically feasible" LNG projects to help countries like Germany reduce reliance on coal in the midst of a global energy crunch.

Attachments:

Attachment A: Map of the existing North Coast transmission line

Attachment B: Potential North Coast Customers to be verified through an Open Season Process

Attachment C: s.13; s.16; s.21

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Attachment A: Existing North Coast Transmission Infrastructure

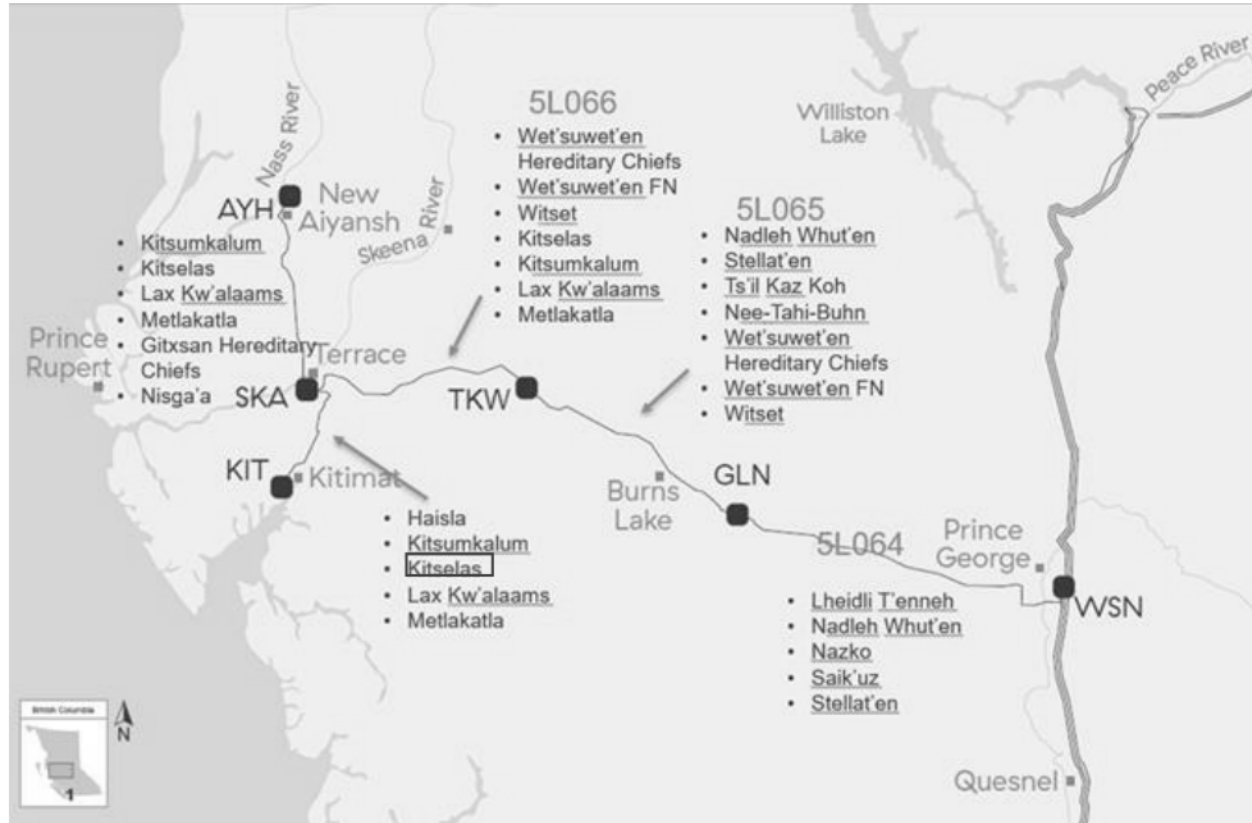


Figure 1: Existing North Coast Transmission Line Segments and potentially affected Indigenous Nations from an expansion of the North Coast system.

Attachment B: Potential North Coast Customers to be verified through Open Season Process
(Commercially Sensitive Information – Not for Distribution)

Table 1: Electrification Interest -- North Coast region

Customer	Sector	Location	Estimated Load (MW)	Estimated ISD	In Queue (Y/N)
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s.21

		Total	2963		

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Withheld pursuant to/removed as

s.13 ; s.16 ; s.21