The Role of Indigenous People in Major Project Development - Part II

Indigenous Ownership of Electricity Infrastructure: A Case Study

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FIRST NATIONS MAJOR PROJECTS COALITION

The First Nations Major Project Coalition (Canada) is a national 67 Indigenous nation collective working towards the enhancement of the economic well-being of its members, understanding that a strong economy is reliant upon a healthy environment supported by vibrant cultures, languages and expressions of traditional laws, and in particular to:

- Safeguard air, land, water and medicine sources from the impacts of resource development by asserting its members' influence and traditional laws on environmental, regulatory and negotiation processes;

- Receive a fair share of benefits from projects undertaken in the traditional territories of its members; and

- Seek ownership opportunities of projects proposed in the traditional territories of its members, such as pipelines and electric infrastructure.

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EXECUTIVE SUMMARY

This discussion paper is a follow-up to the First Nations Major Project Coalition's 2019 paper titled *The Role of Indigenous People in Major Project Development*: *Paths for Indigenous Participation in Electricity Infrastructure.*[1] That paper detailed the rapid rise of Indigenous equity ownership arrangements around the world in energy generation, transmission and distribution sectors. Yet despite this global phenomenon, progress in British Columbia has been slow and challenging.

This Part 2 follow-up paper aims to help enable the increased adoption of Indigenous equity-ownership arrangements by providing a detailed, specific and scalable partnership model, focused on transmission development. In particular, it applies lessons learned from 60 Indigenous and local equity ownership models in the first report to the Kitimat Transmission Line, a hypothetical 16 BC First Nations-initiated 530 km 500kv direct current electricity transmission line from Prince George to Kitimat to service a Liquefied Natural Gas (LNG) liquefaction plant. This paper addresses the technical, financial, environmental, legal, political and social aspects of the hypothetical project.

It also details how the principles of the 2007 United Nations Declaration on Indigenous People (UNDRIP) can be leveraged to guide this equity ownership arrangement as well as provide First Nations with important "own source" revenues to enable ongoing advances in Indigenous self-determination and reconciliation for the betterment of BC.

The report highlights four important principles to consider for Indigenous-owned infrastructure projects moving forward:

- Case-specific solutions can be easier to implement – The Kitimat Transmission Line addresses the unique local needs of the LNG industry, by leveraging an existing transmission line corridor, in a way that meets the unique interests of the First Nations in the region. Problem-solving is often easier when focusing on the specific versus the abstract.
- Leverage existing assets and agreements – It is often easier to resolve questions of scope, revenue-sharing and governance within First Nations when those communities have already considered and agreed on those questions in other projects.
- Indigenous access to capital – In order to replicate existing successful Indigenous-owned infrastructure models, a BC Indigenous loan guarantee program similar to the *Ontario Aboriginal Loan Guarantee Program*[2] should be initiated by BC.
- Value for the BC taxpayer and ratepayer – First Nations as infrastructure partners could reduce the need for BC Hydro to assume public debt for transmission projects.

BC's vision of prosperity and opportunity for all will only be achieved when Indigenous peoples are fully included and active participants in the provincial economy.

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[1] *The Role of Indigenous People in Major Project Development*: *Paths for Indigenous Participation in Electricity Infrastructure*. Available online at https://www.fnmpc.ca/core-documents-1.

[2] Ontario Financing Authority, Aboriginal Loan Guarantee Program, https://www.ofina.on.ca/algp/

INTRODUCTION

One of the most important public policy challenges confronting governments, business and First Nations in Canada is how to meaningfully engage Indigenous people in major infrastructure developments.

There is a growing recognition around the world of both the necessity and benefits of Indigenous involvement in infrastructure developments. Token consultation is no longer enough to ensure a project's ongoing success. Infrastructure initiatives that realize their fullest potential in maximizing benefits for citizens – Indigenous and non-Indigenous alike – are those where First Nations fully participate as equity owners, managing both the risks and rewards.

Part 1 of this report[3], released in 2019, detailed this rapid increase of Indigenous-owned energy infrastructure occurring around the world, most notably in New Zealand, the United States, and Canada. It identified 60 projects where Indigenous nations and communities now have some form of equity in long-term, revenue-producing infrastructure like electric generation, transmission and generation facilities in their traditional territories.

Several factors are driving this adoption, including:

- The need for land use certainty for major projects including infrastructure like electricity infrastructure;
- Growing global demand for new sources of renewable energy, including hydro power;
- Indigenous nations' interest securing long-term "own source" revenue streams.

Yet despite this global phenomenon, Indigenous equity ownership of infrastructure is not yet commonplace in British Columbia. Even where the commitment to Indigenous equity ownership exists, progress is slow and challenging, for a variety of reasons, including the complexity of securing consensus on projects involving multiple First Nations, and of developing a model that meets the unique interests of the Nations, government and project proponents.

To help address this challenge, the First Nations Major Project Coalition Board asked for this report to identify a potential model and approach to enable First Nations become equity owners of electricity transmissions lines in BC.

[3] Ibid.

This follow-up Part 2 discussion paper aims to:

1. Summarize the benefits of Indigenous infrastructure ownership – specifically in transmission lines – for both the Province and First Nations;
2. Identify guiding principles and an imperative for Indigenous infrastructure ownership in BC, flowing from the 2007 United Nations Declaration on Indigenous People (UNDRIP);
3. Provide added detail on five made-in-Canada examples of Indigenous ownership of transmission lines; and
4. Provide a comprehensive case study on a hypothetical Prince George to Kitimat transmission line as a potential model that could be quickly scaled and leveraged to enable Indigenous ownership.

BENEFITS OF INDIGENOUS INFRASTRUCTURE OWNERSHIP FOR BRITISH COLUMBIA

There are a number of significant benefits for the Province of British Columbia to consider that would rapidly flow from accelerating the planning and adoption of Indigenous equity-ownership arrangements:

Economic Benefits

Government, business, labour and academic leaders across the political spectrum recognize the vitally important need for land use certainty and First Nations in enabling economic opportunities for all. Stalled progress on a variety of troubled energy projects attest to the growing urgency of fully including Indigenous peoples in the planning, execution and management of projects on their traditional territories. Indigenous ownership in a major project can also reduce legal risks and uncertainty, which are directly linked to capital flight from Canada.

Legal Benefits

In the absence of comprehensive treaties, or meaningful progress in joint stewardship and land use agreements, economic investment in BC will remain fraught. Economic certainty stemming from Indigenous equity arrangements will help reduce litigation costs and complexity, and ensure greater legal clarity and progress in concluding land use agreements. Moreover, the adoption of the principles of UNDRIP, as detailed below, will also reduce the fiscal burden on the Governments of BC and Canada, by providing a new “own source” revenue stream for First Nations to help enable capacity-building.

Environmental Benefits

In the context of growing rigour and scrutiny from international investors, lenders and regulators with respect to the environmental impacts of major project developments, robust sustainability measures are essential. By actively incorporating the environmental priorities and

guidance of First Nations communities in project planning and execution on their traditional territories, sustainability is enhanced. Good governance yields improved outcomes.

Political Benefits

Reconciliation, diversity and inclusion are key enablers of broader political and public policy priorities. Whether it is progress in business, health care, education or social services, the Province's vision of prosperity and opportunity for all will always be hampered so long as Indigenous peoples are marginalized and unable to fully participate in the provincial economy.

Social Benefits

Perhaps the most important consideration of all is the symbiotic interdependence between the health of Indigenous communities and their relationship to their traditional territories. This principle is inherent in the Province's passage of Bill 41 in November 2019,[4] fulfilling BC's commitment to become the first province to formally adopt in legislation the UNDRIP.[5]

The following section will explore in greater detail the importance and benefits of these self-determination principles in UNDRIP to driving equity-ownership arrangements in BC.

THE IMPORTANCE OF UNDRIP

Not only is Indigenous equity ownership of major projects a critical enabler for BC's economic and social progress – it is a mandated commitment under the Province's embracing of UNDRIP.

Adopted in 2007 by 144 nations at the United Nations, and by Canada in 2016, UNDRIP details the individual and collective rights of Indigenous people in a wide range of areas including culture, identity, language, employment, health, and education. The Declaration "*emphasizes the rights of Indigenous peoples to maintain and strengthen their own institutions, cultures and traditions, and to pursue their development in keeping with their own needs and aspirations,*"[6]

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[4] "Progress of Bills." Progress of Bills, Legislative Assembly of British Columbia, 28 Nov. 2019, www.leg.bc.ca/parliamentary-business/legislation-debates-proceedings/41st-parliament/4th-session/bills/progress-of-bills.

[5] Bellrichard, Chantelle. "B.C. Commits to Being 1st Province in Canada to Put UNDRIP into Legislation | CBC News." *CBCnews*, CBC/Radio Canada, 13 Feb. 2019, www.cbc.ca/news/indigenous/b-c-commits-to-being-1st-province-in-canada-to-put-undrip-into-legislation-1.5018447.

[6] "United Nations Declaration on the Rights of Indigenous Peoples For Indigenous Peoples." *United Nations*, United Nations, www.un.org/development/desa/indigenouspeoples/declaration-on-the-rights-of-indigenous-peoples.html.

and *"promotes their full and effective participation in all matters that concern them and their right to remain distinct and to pursue their own visions of economic and social development."*[7]

In addition to BC enshrining UNDRIP into legislation, the federal government has committed to introducing similar enabling legislation in its current mandate.[8]

For many Indigenous people, UNDRIP now frames how they see development and their ability to direct decisions that are supportive of their interests. It focuses Indigenous attention to how Nation-supported development can be applied to advance Nation-defined goals instead of those imposed by host states.

Long-term revenues from Indigenous-owned electric infrastructure could be the beginnings of an Indigenous economy that can fund First Nations to implement UNDRIP-defined self-determination. UNDRIP Article 4 is clear that self-determination includes the *"right to autonomy or self-government in matters relating to their internal and local affairs, as well as the ways and means for financing their autonomous functions."*

This new self-funded Indigenous economy offers significant benefits for First Nations and the Province alike, including:

- Greater investment certainty and reduced opposition to projects;
- Stable "own source" revenue streams to enable the Indigenous economy;
- Self-sustaining Indigenous governments;
- Ability of First Nations with access to these capital sources to better leverage investment market funds to further invest in provincial economy;
- A new Nation-to-Nation relationship with the Crown as partner;
- In the case of electric generation and transmission specifically, improved Environmental, Social, and Governance (ESG) rating of BC Hydro; and
- Direct First Nations involvement in the electricification of the province to support broader economic and environmental opportunities, including Liquefied Natural Gas (LNG) development.

However, it will also require significant changes to Indigenous governance, as detailed below.

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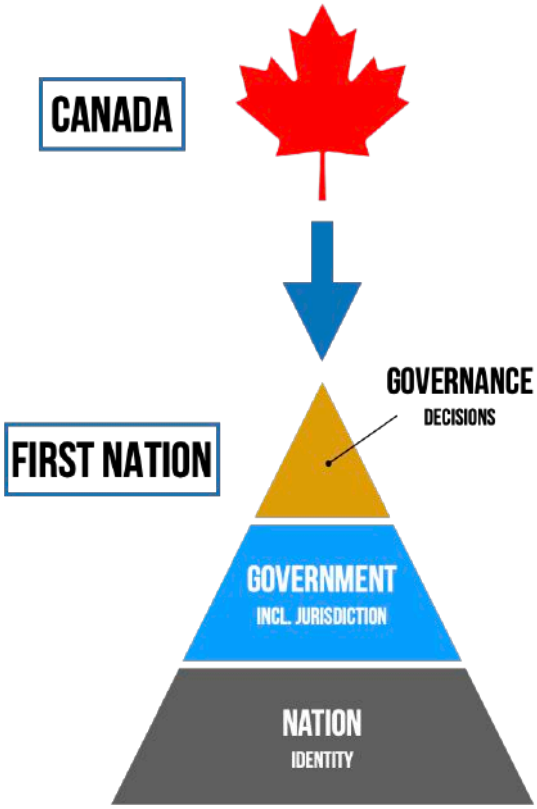
[7] Ibid.

[8] Barrera, Jorge. "Trudeau Government Moving Forward on UN Indigenous Rights Legislation, Says Minister | CBC News." *CBCnews*, CBC/Radio Canada, 4 Dec. 2019, www.cbc.ca/news/indigenous/trudeau-undrip-bill-1.5383755#.

After the *Indian Act*

One important outcome of Canada adopting UNDRIP is the fundamental incompatibility of the current federal *Indian Act* with the UN Declaration. First enacted in 1880, the *Indian Act* will be superseded by UNDRIP. This is significant, insofar as most *Indian Act*-modeled First Nation governments derive their governance legitimacy from the federal government. Governance decisions are – for the most part – made by Canada and implemented by First Nations.

Figure 1. Current Indian Act-style First Nations Governance Model



Source: First Nations Financial Management Board

There are exceptions to the Canada-centric First Nations governance model where some Nations have negotiated self-government agreements over aspects of their internal affairs, but governance legitimacy – and most funding – still rests with Canada.[9]

[9] It is important to note that self-governance is not the same as self-determination. Indigenous self-governance in Canada has been by-and-large the implementation of another government's policies. Self-determination is the formation and implementation of a government's own policies.

What form of Indigenous governance should replace the *Indian Act* model is now actively being discussed among many First Nations.

As these new governance arrangements will have a material impact on major project development in BC, the following section summarizes the principles under discussion.

Process for new governance models

In 2018, Indigenous Services Canada engaged the First Nations Financial Management Board (FMB) and the Institute on Governance (IOG) to lead a First Nations examination of good governance practices to assist First Nations seeking to exit the *Indian Act*.

The result was the *First Nations Governance Project: Phase I Report*, a First Nations-led self-determination and governance resource.[10]

The report was prepared with input from a national advisory group of Indigenous and governance leaders.[11] The advisors were tasked with recommending good governance practices for First Nations communities.

The advisors provided insight in four distinct areas:

> **UNDRIP**: A transition away from the *Indian Act* must be grounded in UNDRIP self-determination principles and be informed by an understanding of the history of the Crown-Indigenous relationship from first contact, to the Royal Proclamation of 1763, treaty-making, and past efforts aimed at repairing the relationship such as the Royal Commission on Aboriginal Peoples (RCAP) and the Truth and Reconciliation Commission (TRC);
>
> **INTER-RELATED REALITIES**: To support communities transitioning from the *Indian Act*, a comprehensive and holistic approach is required that recognizes the interaction between governance, community capability, fiscal and government autonomy, and other principles that guide First Nations' relationships – internally with other communities, and with other levels of government;
>
> **GOVERNANCE**: While good governance is important to transitioning out of the *Indian Act*, equally important is the advancement of a Nation-to-Nation relationship based on effective and meaningful Crown-Indigenous engagement principles;

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[10] Available online at www.fnfmb.com or https://tinyurl.com/y8sq6sml

[11] *The Role of Indigenous People in Major Project Development*: *Paths for Indigenous Participation in Electricity Infrastructure*, Page 84.

INCLUSIVE FOR FIRST NATIONS: To be effective, all First Nations must be able to see themselves – including their unique cultural, historic and regional situations – in any self-determination and governance recommendations.

To understand how these governance practices will shape Indigenous equity-ownership projects, a brief explanation of the principles of self-determination is in order.

PRINCIPLES OF SELF-DETERMINATION

The *First Nations Governance Report* authors reviewed the growing body of scholarship on self-definition, and ultimately drew heavily from the document *"Self-Determination and Indigenous Health: Is there a connection?"* by Michael Murphy of the University of Northern British Columbia.[12]

Self-determination:

- *Free choice of one's own acts or states without external compulsion;*
- *Determination by the people of a territorial unit of their own political status;*
- *A North American Indian people or confederation of peoples*

Merriam-Webster Dictionary

Murphy argues that *"self-determination is a capability that can only be realized in common by the members of distinct political community, working together within shared political institutions to determine the laws and policies that will shape their individual and collective futures."*[13] His research suggests self-determination, or autonomy, is of particular importance to the health of Indigenous peoples and, by extension, the health of the community itself, in its control and delivery of health services that reflect traditional Indigenous approaches.

While Murphy's analysis stems from a study of the relationship between community autonomy and health outcomes, it applies more broadly to social, economic, cultural and even environmental health. While Murphy argues that autonomy is the most critical aspect of self-determination, he draws on *Self-Determination Theory* (SDT) to identify two other critical aspects.

SDT, popularized by Richard Ryan and Edward Dec at the University of Rochester, identifies three innate needs that, if satisfied, allow optimal function and growth:

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[12] Murphy, Michael. "Self-Determination and Indigenous Health: Is There a Connection?" *E-International Relations*, Self-Determination and Indigenous Health: Is There a Connection? 26 May 2014, www.e-ir.info/2014/05/26/self-determination-and-indigenous-health-is-there-a-connection/.

[13] Ibid

- Competence (or Capacity);
- Relatedness (or Relationships);
- Autonomy.

These needs are seen as universal necessities that are innate, not learned, and are seen in humanity across time, gender and culture.

Deci and Ryan claim that there are three essential elements of the theory:

1. Humans are inherently proactive with their potential and mastering their inner forces (such as drives and emotions);
2. Humans have an inherent tendency toward growth development and integrated functioning; and
3. Optimal development and actions are inherent in humans but they don't happen automatically.

To actualize human inherent potential, humans need nurturing from the social environment. Where this happens, there are positive consequences, such as well-being and growth. Where a nurturing social environment is not present, there are negative consequences. *Humans' natural growth toward positive motivation is thwarted if our basic needs are not fulfilled*.[14]

Figure 2. Self-Determination Theory[15]

[14] *The Theory*. Center for Self Determination Theory, http://selfdeterminationtheory.org/the-theory/.
[15] Graph developed based on the following sources: Murphy, Michael (2014). "Self-Determination and Indigenous Health: Is There a Connection?" 2014; and Deci, R. M. and Ryan, E.L. (2000). "Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being" Am. Psychol. 55:68-78.

Self-Determination Theory is relevant to this discussion because for many Indigenous peoples, identity rests not primarily with the individual, but with a combination of family, clan, community, and nation. Indigenous peoples have consistently maintained that their rights, and identity, are collective in nature, a position confirmed by numerous decisions of the Supreme Court of Canada.[16] For many Indigenous peoples their identity as an individual is inseparably connected to the community to which that individual belongs.

The collective nature of rights and identity would suggest that First Nation communities are similar to individuals with respect to their innate desire for autonomy, competence (capability), and relatedness (relationships) and that the significance of those relationships are reflected at multiple levels, including community, treaty, and Nation.

In other words, in order for new governance arrangements to truly advance UNDRIP self-determination principles, First Nations must be full and equal partners in defining those arrangements, including their relationships with national and regional governments.

The following section describes how these principles of self-determination apply to Indigenous governance.

Applying Self-Determination Theory

i. Start with the Nation

Applying the three core components of Self-Determination Theory to First Nations – **autonomy**, **capability** and **relationships** – a new governance model emerges, one that puts the Nation first.

Transforming current Canada-centric top-down governance model to one that is centered on a Nation's unique culture, traditional values and world view provides the foundation for a governance structure that is more responsive to an Indigenous Nation's goals and aspirations.

[16] *Reclaiming Our Identity: Band Membership, Citizenship and ...* National Centre for First Nations Governance, www.fngovernance.org/resources_docs/ReclaimingOurIdentity_Paper.pdf. See also Supreme Court of Canada. "Delgamuukw v. British Columbia." *Supreme Court of Canada*, 3 Dec. 2012, https://scc-csc.lexum.com/scc-csc/scc-csc/en/item/1569/index.do.

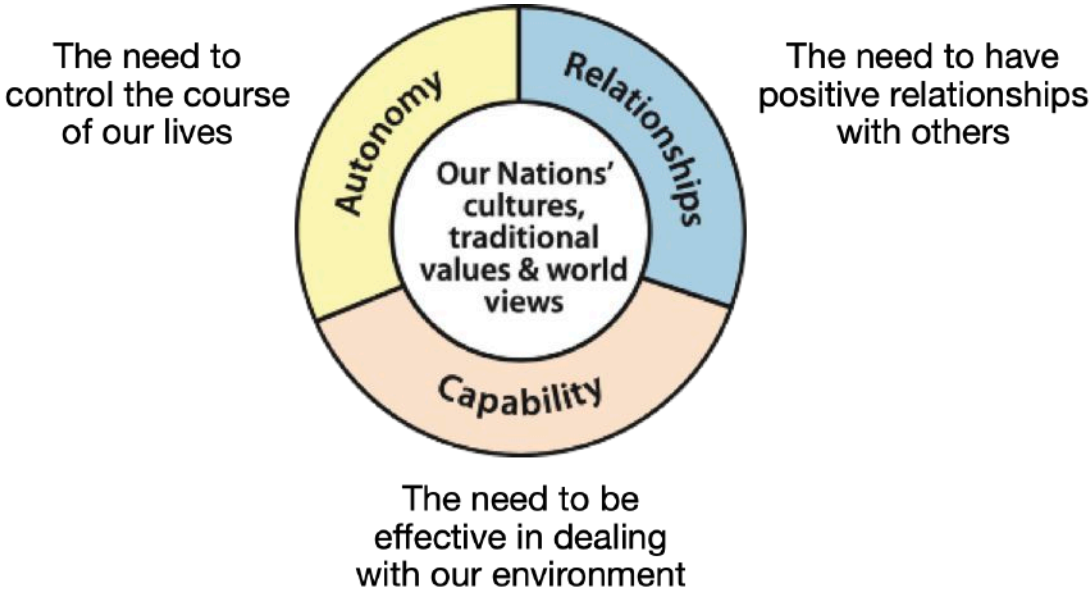
Figure 3. First Nations Governance Legitimacy – The Nation First

Source: First Nations Financial Management Board

ii. Core Components

Next, the governance model must build on the foundation of the "Nation first" to ensure it gives effect to the three innate needs identified in SDT:

Figure 4. Core Components of Self-Determination



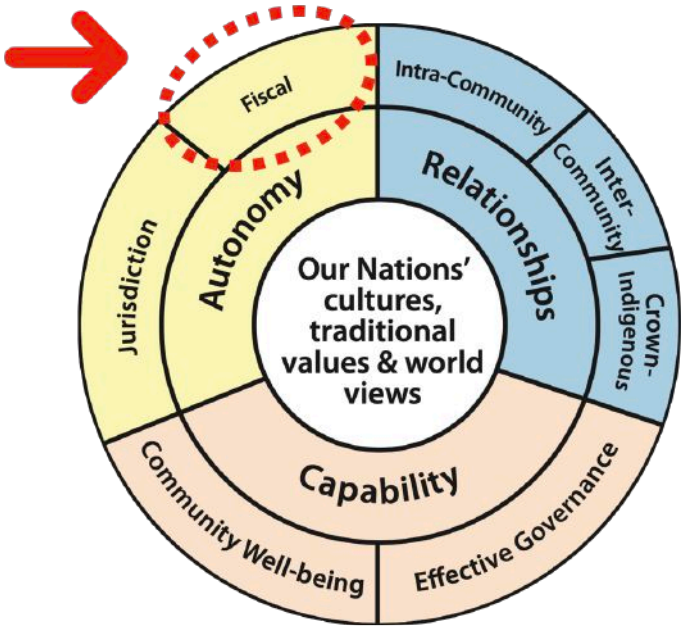
Source: First Nations Financial Management Board

iii. Elements

Building on the three components of self-determination, the elements of Indigenous Nationhood can be added. These include:

- Autonomy → Jurisdiction including **fiscal**
- Relationships → Intra-community, inter-community government and Crown-Indigenous
- Capability → Community well-being and effective governance

Figure 5. Elements of Self-Determination



Source: First Nations Financial Management Board

No government – Indigenous or not – is truly self-determining if it is reliant on an external government for financial viability.

The fiscal element is vital to ensuring that an Indigenous Nation can support its self-determination goals and aspirations. It also fulfills UNDRIP Article 4 which states: *"Indigenous peoples, in exercising their right to self-determination, have the right to autonomy or self-government in matters relating to their internal and local affairs, as well as* ***ways and means for financing their autonomous functions****."*

Equity ownership of infrastructure can provide a First Nation with a regular, long-term cash flow that could provide the means to finance UNDRIP-supportive autonomous functions. The

Crown-Indigenous relationship remains as a vital Nation-to-Nation relationship that respects and honours each other in a true Nation-to-Nation, not Nation-to-ward, relationship.

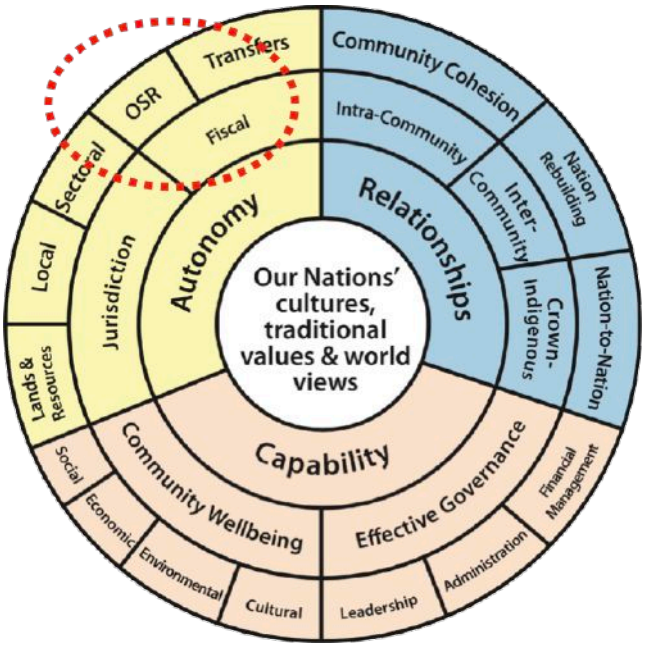
iv. Functions

Core self-determination components and elements are further refined by functions, many of which are already delivered by First Nations.

Each First Nation will have different programs and services, some offered by individual communities, others in conjunction with shared service First Nations organizations, tribal councils, or other parties.

Revenue from equity ownership of infrastructure would be considered own source revenue (OSR), and not be dependent on annual fiscal transfers from other levels of governments.

Figure 6. Functions of Self-Determination



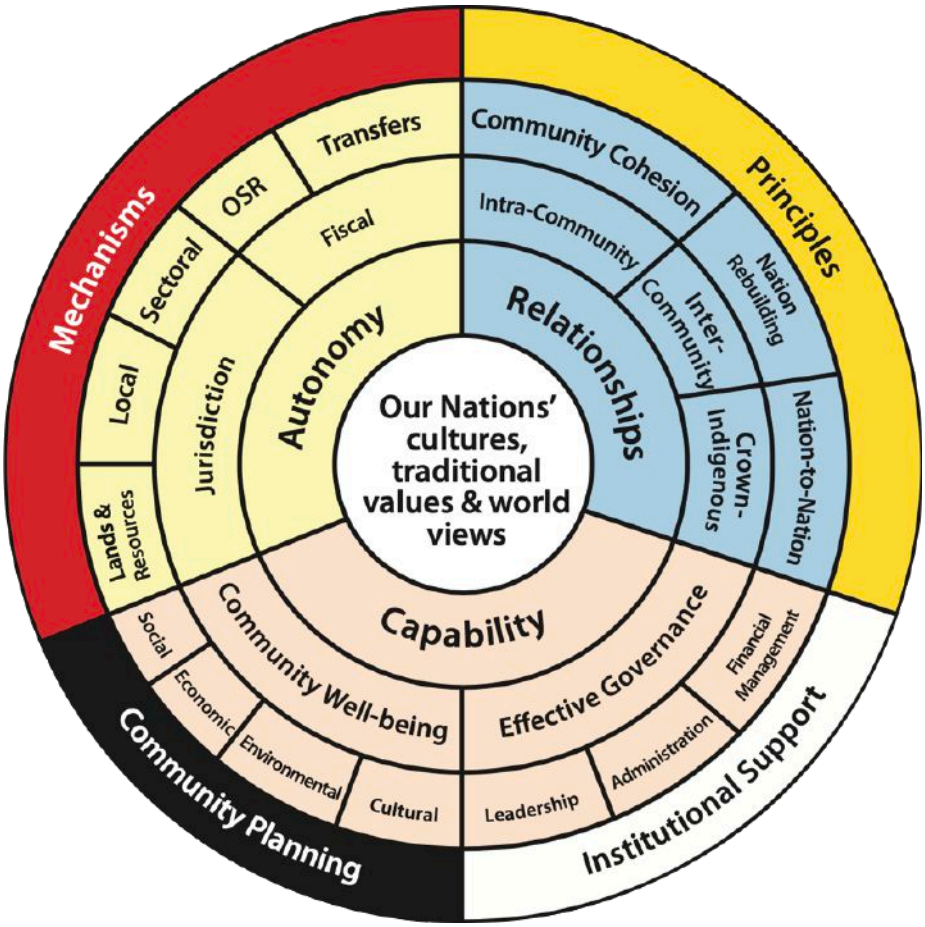
Source: First Nations Financial Management Board

While smaller First Nations can't currently offer all these functions due to their size, aggregated or reconstituted First Nations, or those with inter-Nation shared services agreements, could depending on their desires and objectives. To be a true self-determining government, a nation must deliver all these functions.

v. Capstones

Finally, the self-determination model is capped with mechanisms (autonomy), principles (relationships), community planning and institutional support (capability) that guide a re-imagined First Nation self-determination and governance model.

Figure 7. UNDRIP-Compatible Self-Determination



Source: First Nations Financial Management Board

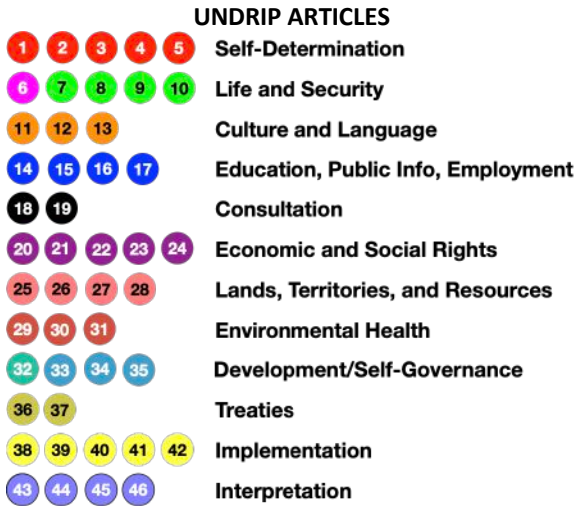
Each First Nation is unique and will define its own path out of the Indian Act. Some First Nations will choose to pursue their way for their community alone. Others may decide that existing organizations better reflect their aspirations and needs, while some will conclude that a reconstituted vision of membership and jurisdiction is the best way forward.

The framework is meant as a guide, not a fixed template, that will allow First Nations to adapt it to their specific historic, cultural and geographic realities.

COMPATIBILITY WITH UNDRIP

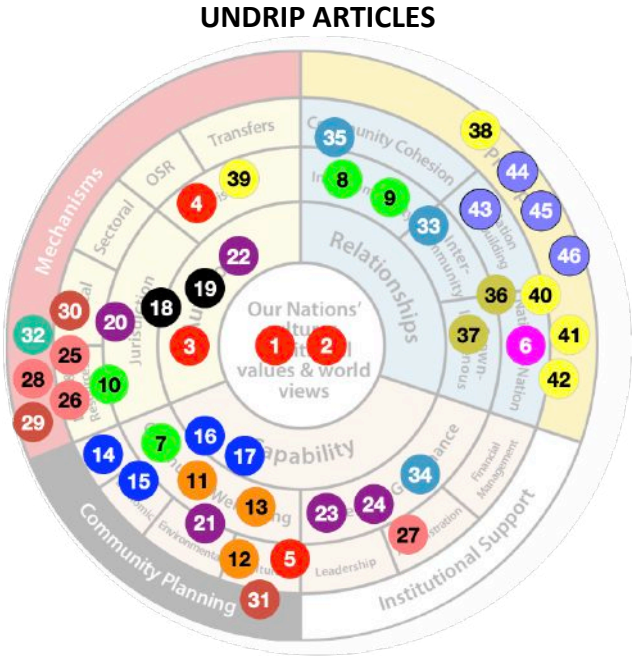
A key part of the advisory group advice was that a re-imagined First Nation self-determination and governance framework must be fully compatible with UNDRIP. When one maps UNDRIP's 46 articles against the framework, it becomes clear that the framework achieves all of the Declaration's intent.

Figure 8. UNDRIP Articles



Source: First Nations Financial Management Board

Figure 9. Compatibility with First Nation Self Determination and Governance Framework



Source: First Nations Financial Management Board

FINANCING SELF-DETERMINATION – THE FISCAL COMPONENT OF AUTONOMY

As noted earlier, jurisdiction and fiscal autonomy are essential for any self-determining nation, Indigenous and non-Indigenous. It is impossible for a government at any level to function without sources of revenue to pay for its operation.
For First Nations, a multi-generational source of infrastructure revenue will allow Nations to set and fund their self-determination priorities, including the following areas:

- *Culture and language*

  UNDRIP Article 11

  Indigenous peoples have **the right to practice and revitalize their cultural traditions and customs**. This includes **the right to maintain, protect and develop the past, present and future manifestations of their cultures, such as archaeological and historical sites**, artifacts, designs, ceremonies, technologies and visual and performing arts and literature.

  UNDRIP Article 12

  Indigenous peoples have **the right to manifest, practices, develop and teach their spiritual and religious traditions, customs and ceremonies**; the right to maintain, protect, and have access in privacy to their religious and cultural sites; the right to the use and control of their ceremonial objects; and the right to the repatriation of their human remains.

- *Education and media*

  UNDRIP Article 14

  Indigenous peoples have **the right to establish and control their educational systems and institutions providing education in their own languages**, in a manner appropriate to their cultural methods of teaching and learning.

  UNDRIP Article 16

  Indigenous peoples have **the right to establish their own media in their own languages** and to have access to all forms of non-indigenous media without discrimination.

- *Economic, social & health improvements*

  UNDRIP Article 20

  Indigenous peoples have **the right to maintain and develop their political, economic and social systems or institutions, to be secure in the enjoyment of their own means of subsistence and development**, and to engage freely in all their traditional and other economic activities.

  UNDRIP Article 21

  Indigenous peoples have **the right, without discrimination, to the improvement of their economic and social conditions, including, inter alia, in the areas of education, employment, vocational training and retraining, housing, sanitation, health and social security.**

  States shall take effective measures and, where appropriate, **special measures to ensure continuing improvement of their economic and social conditions.** Particular attention shall be paid to the rights and special needs of indigenous elders, women, youth, children and persons with disabilities.

  UNDRIP Article 23

  Indigenous peoples have **the right to determine and develop priorities and strategies for exercising their right to development.** In particular, indigenous peoples have **the right to be actively involved in developing and determining health, housing and other economic and social programmes affecting them and, as far as possible, to administer such programmes through their own institutions.**

- *Inclusion in revenue from traditional territories*

  UNDRIP Article 26

  Indigenous peoples have **the right to the lands, territories and resources which they have traditionally owned, occupied or otherwise used or acquired.**

  Indigenous peoples have **the right to own, use, develop and control the lands, territories and resources that they possess by reason of traditional ownership or other traditional occupation or use**, as well as those which they have otherwise acquired.

- *Development priorities*

  UNDRIP Article 32

  Indigenous peoples have **the right to determine and develop priorities and strategies for the development or use of their lands or territories and other resources.**

- *Self-governance*

  UNDRIP Article 34

  Indigenous peoples have **the right to promote, develop and maintain their institutional structures and their distinctive customs, spirituality, traditions, procedures, practices** and, in the cases where they exist, juridical systems or customs, in accordance with international human rights standards.

- *Financial assistance for implantation of self-determination (UNDRIP #39)*

  UNDRIP Article 39

  Indigenous peoples have **the right to have access to financial and technical assistance from States** and through international cooperation**, for the enjoyment of the rights contained in this Declaration.**

Meanwhile, for non-Indigenous governments, the benefits include:

- *Fulfillment of UNDRIP Bill 41 – Especially Articles 3, 4, 26 and 32*

  UNDRIP Article 3

  Indigenous peoples have the right to self-determination. By virtue of that right they **freely determine their political status and freely pursue their economic, social and cultural development.**

  UNDRIP Article 4

  Indigenous peoples, in exercising their right to self-determination, have **the right to autonomy or self-government in matters relating to their internal and local affairs, as well as ways and means for financing their autonomous functions.**

UNDRIP Article 26

Indigenous peoples have **the right to own, use, develop and control the lands, territories and resources that they possess by reason of traditional ownership or other traditional occupation or use**, as well as those which they have otherwise acquired.

UNDRIP Article 32

Indigenous peoples have **the right to determine and develop priorities and strategies for the development or use of their lands or territories and other resources.**

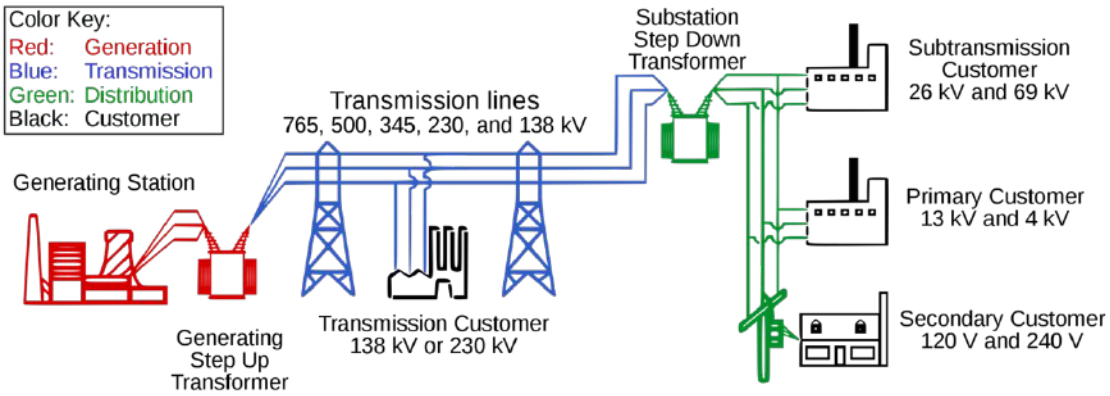
INDIGENOUS-OWNED ELECTRICITY TRANSMISSION INFRASTRUCTURE – EXAMPLES

Having examined the self-determination "best practices" for Indigenous governance models, we can now consider specific examples of equity-ownership arrangements in electricity transmission projects that begin to give effect to these principles.

Building on the 60 Indigenous and local community equity ownership projects around the world identified in Part 1 of this paper, the following case studies in this section provide selected Canadian examples of Indigenous ownership of electricity transmission infrastructure.

The aim of examining these is to then highlight a specific, scalable, made-in-BC hypothetical model for how Indigenous infrastructure ownership could be more quickly and easily enabled in electricity transmission.

Figure 10. Electric Power System



Source: United States Department of Energy.[17]

[17] United States Department of Energy. "Final Report on the August 14, 2003 Blackout in the United States and Canada" Page 13. April 2004. http://www.ferc.gov/industries/electric/indus-act/reliability/blackout/ch1-3.pdf.

i. Alberta PowerLine (Alberta)

"Alberta PowerLine exemplifies a new model for Canada and showcases how industry and Indigenous communities can work together to develop energy infrastructure that benefits all stakeholders.

- Siegfried Kiefer, President & Chief Executive Officer, CU and President, ATCO[18]

The Alberta PowerLine project is a 508 km long, 500 kV AC transmission line which runs from Wabamun to Fort McMurray, Alberta. It is the longest of its kind in Canada and was financed in part through the largest public-private partnership bond in Canadian history.[19] The line was energized in March 2019. That same year, Canadian Utilities Limited (CU) and its partner Quanta Service, Inc. signed a deal to sell the line for approximately $300 million and the assumption of $1.4 billion of debt.[20]

"By taking partial ownership of this critical piece of infrastructure, we have become direct participants in Alberta's energy sector. We know this is a valuable investment for our community and our people that will bring economic development and provide long-term benefits for generations to come."

- Chief Silas Yellowknee, Bigstone Cree Nation[21]

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[18] *Alberta PowerLine Limited Partnership*. DBRS, www.dbrsmorningstar.com/issuers/22731/alberta-powerline-limited-partnership.
[19] *Canadian Utilities Signs Deal to Sell Interest in Alberta PowerLine to Consortium*. Global News, 24 June 2019, https://globalnews.ca/news/5426686/canadian-utilities-alberta-powerline-sale/.
[20] *Indigenous Communities Acquire 40 Per Cent Interest in Award-Winning Alberta PowerLine*. "GlobeNewswire", 23 Sept. 2019, www.globenewswire.com/news-release/2019/09/23/1919021/0/en/Indigenous-Communities-Acquire-40-Per-Cent-Interest-in-Award-Winning-Alberta-PowerLine.html.
[21] *Indigenous Communities Take Stake in Essential Energy Infrastructure as Canadian Utilities, an ATCO Company, Completes Sale of Alberta PowerLine*. Canadian Utilities, 19 Dec. 2019, www.canadianutilities.com/en-ca/about-us/news/2019/122578-indigenous-communities-take-stake-in-essential-energy-infrastruc.html.

It was decided internally that a combined 40% of the equity in the project would be made available by CU to Indigenous communities along the line. Agreements were made first with a consortium comprised of Greystone Infrastructure Fund and IST3 Investment Foundation, and the 40% equity interest was subsequently offered to Indigenous communities identified by CU by way of an option process. Of these, seven communities decided to engage in the deal and were also able to secure financing for their respective investments, which resulted in the full 40% equity interest offered being acquired: Athabasca Chipewyan First Nation, Bigstone Cree Nation, Gunn Métis Local 55, Mikisew Cree First Nation, by way of its business arm, the Mikisew Group of Companies, Paul First Nation, Sawridge First Nation and Sucker Creek First Nation.

The line will continue to be operated by ATCO Electric, a CU affiliate, and owners will be paid regular, stable distributions from Alberta PowerLine through a 35-year tariff agreement with the AESO. For the seven Indigenous communities, this creates a steady source of own-source revenue over the course of several generations, thereby increasing their autonomy and improving the capability to administer initiatives to improve community wellbeing.

ii. NextBridge East-West Tie Line Transmission Project (Ontario)

The East-West Tie Transmission Line (EWT) is a 450 km long, 230 kV double-circuit project which parallels an existing line between the Wawa Transformer Station and the Lakehead Transformer Station near Thunder Bay, Ontario, with a connection midway along the route in Marathon.[22] However, unlike the existing line, the EWT will go around the Pukashwa National Park.

Figure 11. Map - NextBridge East-West Tie Line Transmission Project

Map source: NextBridge [23]

The project crosses the territories of six First Nations – the Michipicoten First Nation, Netmizaaggamig Nishnaabeg (Pic Mobert First Nation), Biigtigong Nishnaabeg (Ojibways of the Pic River First Nation), Pays Plat First Nation, Red Rock Indian Band, and Fort William First Nation. These Nations are involved in the EWT through an entity called the Bamkushwada Limited Partnership (BLP) which holds 20% equity ownership in the line. They also own Supercom Industries, a commercial organization which is responsible for training and employment of First Nations on EWT project procurement, while also providing opportunities for their members and Community Contractors to work on the project with the goal of maximizing First Nation involvement. Through this initiative several hundred Indigenous people

[22] Ross, I. (2019, February 22). East-West Tie build will need workers. Retrieved from https://www.northernontariobusiness.com/industry-news/aboriginal-businesses/east-west-tie-build-will-need-workers-1254461.

[23] East-West Tie Transmission Line Project. (n.d.). Retrieved from http://www.nextbridge.ca/.

have been graduated in skilled and semi-skilled positions related to transmission line construction.

Nextbridge Infrastructure (a partnership between affiliates of Enbridge, NextEra Energy Canada and OMERS Infrastructure) is working with Valard Construction and Supercom Industries on the project, which will ensure the long-term reliability of electricity for primarily industrial activity in Northwestern Ontario.[24]

After Nextbridge was awarded the development contract by the Ontario Energy Board -- through a competitive process -- Valard was selected to provide project management and construction services. Supercom Industries had already been created at this stage and provided a united and formal front for consultation with the First Nations involved in the project, as well as further coordination for the construction phase. A participation agreement was executed between Supercom and Valard to ensure substantial economic participation and benefits to the First Nations. The agreement includes certain activities performed by Supercom's joint venture partners that represent approximately 20-30% of the total construction costs. All the proceeds accumulated by Supercom at the end of the project will be transferred back to the six participant First Nations to assist them with the equity purchase.

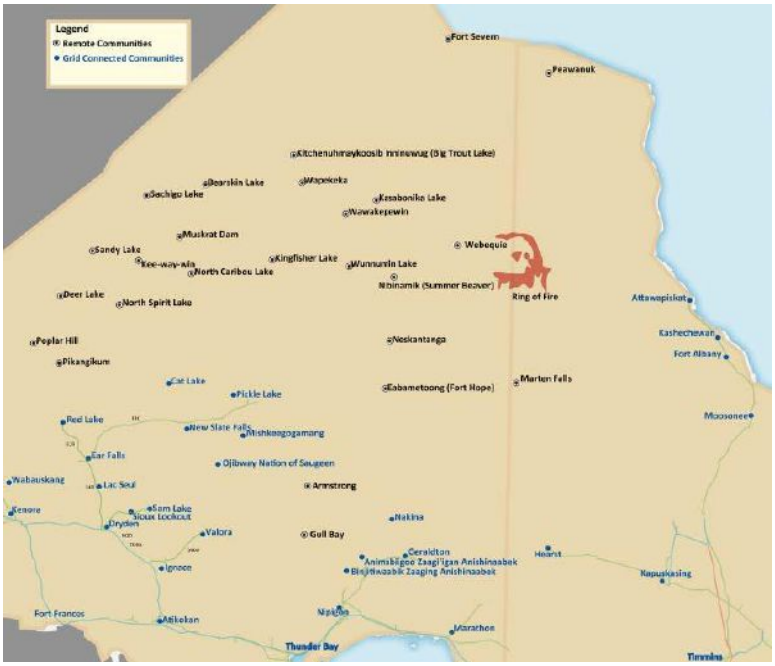
Supercom's success started with the initial funding sourced from a wide variety of locations, including Indigenous Services Canada, the Ontario Energy Board, Nextbridge and Valard.

[24] East-West Tie Line (EWT). (n.d.). Retrieved from https://www.enbridge.com/projects-and-infrastructure/projects/east-west-tie-line.

iii. Wataynikaneyap Power (Ontario)

Wataynikaneyap Power LP (WPLP) is a licensed transmission company equally owned by 24 First Nations communities (51%), in partnership with Fortis Ontario Inc. (Fortis) and other private investors (49%).

Figure 12. Map - Wataynikaneyap Power Transmission Lines



Source: Wataynikaneyap Power. [25]

The project will involve the construction of approximately 1,800 km of transmission lines in Northwestern Ontario in order to connect 17 remote communities to the grid, thereby reducing their reliance on diesel generation. Pikangikum First Nation was the first community to be energized by the project, and was connected in December of 2018, while the remaining work is scheduled for completion in 2023 at a total cost of $1.9 billion.[26]

[25] *Background*. Wataynikaneyap Power, www.wataypower.ca/project/background.
[26] *Economy*. Wataynikaneyap Power, www.wataypower.ca/benefits/economy.

Once the project has been in operation for 25 years, the 24 First Nations involved in the project will be able to exercise the option to purchase the remaining 49% of the project equity.[27] [28]

The initial funding for the First Nations involved in the project was established through non-repayable grants from Indigenous Services Canada (ISC), which was then called INAC. The Government of Ontario also contributed through its Aboriginal Loan Guarantee Program, which is described Appendix A.

The Pikangikum section of the line was initially built at a distribution voltage of 44kV and was funded by the INAC Minor Capital funding stream. It will be upgraded to transmission voltage of 115kV in 3 to 4 years, once it is possible to connect communities north of Pikangikum. The early development costs for the project were partly covered by a Deferral Account held with the Ontario Energy Board (OEB).[29] The OEB Deferral Account does not cover any of the start-up or partnership formation costs for the WPLP, but the development costs for the project subsequent to partnership formation will be recovered from the rate base once the company begins collecting revenue.

During project development, on-going funding will also be provided by ISC to account for the considerable avoided cost of the diesel which had previously powered community generators. This funding will be unlocked as each community comes online. The project will significantly decrease the financial and social costs of diesel generation, and will create nearly $900 million in socio-economic benefits including avoiding the emission of over 6.6 million tonnes of CO2 (equivalent), improving the health of community members, and creating the opportunity for an estimated 769 jobs and further economic growth in the region. The WPLP envisions the transmission lines eventually connecting to planned mines and other industrial users in their traditional territories.

The administration of projects and programs for Wataynikaneyap Power relating to community engagement, community readiness, education & training, business readiness, stakeholder engagement, communications, and capacity building is conducted by Opiikapawiin Services LP (OSLP). OSLP will also support the FNLP in the management of its investment in Wataynikaneyap Power, which includes raising equity for the First Nations interest in the transmission project.[30]

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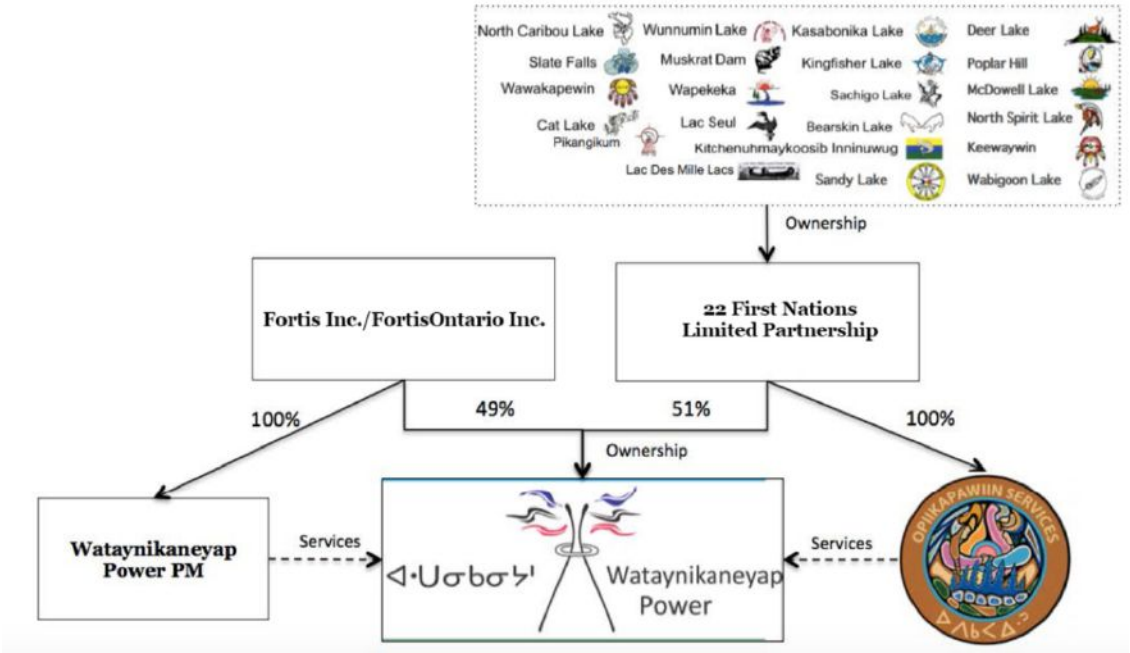
[27] *Two More Ontario First Nations Join Project to Connect Remote Communities to Hydro Grid*. The Star, 17 Jan. 2019, www.thestar.com/news/canada/2019/01/17/two-more-ontario-first-nations-join-project-to-connect-remote-communities-to-grid.html.
[28] *The Wataynikaneyap Transmission Project: FortisOntario Inc*. Fortis Ontario, https://fortisontario.com/node/120.
[29] *EB-2018-0190 - Decision*. Ontario Energy Board, www.oeb.ca/node/2211.
[30] "*Opiikapawiin Services LP,* www.oslp.ca/.

Officers of the WPLP are appointed by both Fortis and the First Nations Limited Partnership (FNLP), and can be appointed internally or externally based on job requirements and available resources. Fortis has provided many key personnel for technical and management roles, and will continue to provide expertise throughout the construction and operation of the project.

Figure 13. Ownership Structure of Wataynikaneyap Power



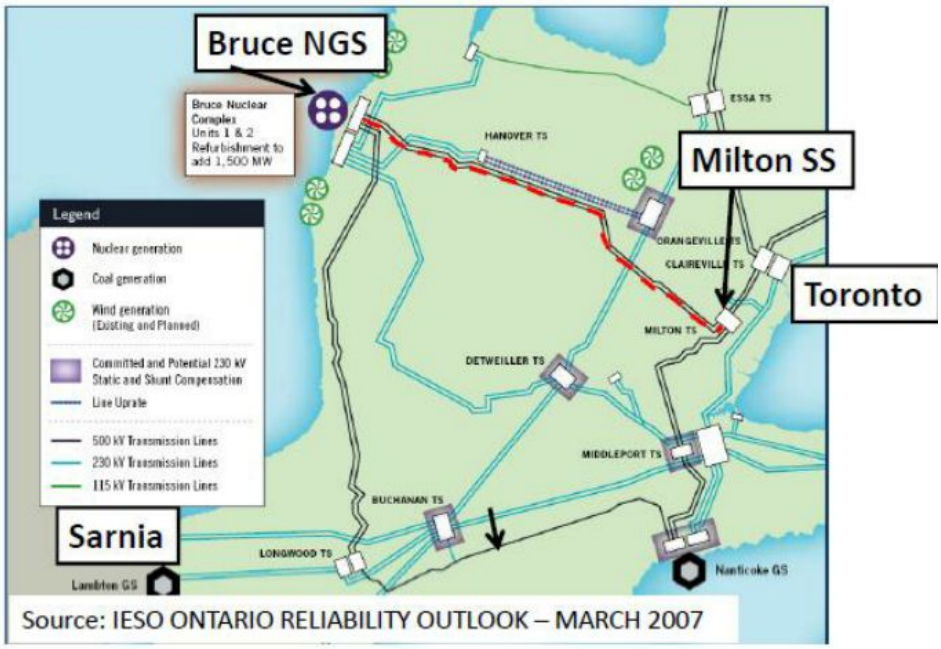
Source: Wataynikaneyap Power.[31]

[31] *Corporate Structure*. Wataynikaneyap Power, https://tinyurl.com/y5934uo6.

iv. Bruce to Milton Transmission Line (Ontario)

In 2013, the Saugeen Ojibway First Nation (SON) signed an agreement to purchase a 30% ownership interest in a 500 kV, 180 km transmission line which runs through their territory between Bruce and Milton in Ontario.[32] The line is owned by the B2M Limited Partnership, which is owned by the SON Finance Corporation and B2M GP Inc., a subsidiary of Hydro One. The SON Finance Corporation is jointly owned by the Chippewas of Saugeen First Nation and the Chippewas of Nawash First Nation.[33]

Figure 14. Map – Bruce to Milton Transmission Line



Source: IESO

The equity interest held by the SON FC was valued at $72 million at the time of the deal, and the required capital was raised from financial lending institutions guaranteed by the Province of Ontario's Aboriginal Loan Guarantee Program.

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[32] Dombek, Carl. *First Nation to Acquire Partial Ownership of Hydro One Transmission Line*. Transmission Intelligence Service, 14 May 2013, www.transmissionhub.com/articles/2013/05/first-nation-to-acquire-partial-ownership-of-hydro-one-transmission-line.html.

[33] *EB-2015-0026 - Decision*. Ontario Energy Board, 29 Dec. 2015, www.oeb.ca/node/1306.

Since it was energized in June 2012, the line has been used to transport power generated by large-scale construction of wind and solar energy farms, and may also be used for two idled nuclear generating units in Bruce should they return to service. The line is operated and maintained by Hydro One Networks.[34]

Although proud of the groundbreaking nature of the agreement, lawyer and former Saugeen Chief Kahgee said he is most pleased about the lasting legacy created for his people. "The good thing is that it's a sustainable benefit," he said. "This is something my grandchildren and my great-grandchildren will drive a benefit from. As long as that line is there, there will be something flowing to the communities."[35]

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[34] Spears, John. *Saugeen Indian Bands Buy $72 Million Stake in Power Line*. The Toronto Star, 9 May 2013, www.thestar.com/business/2013/05/09/saugeen_indian_bands_buy_72_million_stake_in_power_line.html.

[35] Ibid.

v. Kingsvale Electricity (BC)

The Kingsvale transmission line is a $25 million, 24km, 138kV route designed to connect Trans Mountain's existing Kingsvale pump station, as well as a new Kingsvale pump station, to the BC Hydro distribution line as part of the Trans Mountain Expansion Project.

Figure 15. Kingsvale Pump Station

Source: Mark Podlasly

The line is owned by Shulus Electricity Transmission LP, of which the Lower Nicola Indian Band Development Corporation (LNIBDC) owns 55%, while Valard Construction owns 45%.[36] LNIBDC is in contract with Trans Mountain Canada Inc. to construct, maintain, and operate the line for 20 years, with the potential to renew the contract for an additional 20 years. The line will be energized in June of 2020.

[36] *Lower Nicola Indian Band Development Corp. Will Own and Operate the New Kingsvale Electricity Transmission Line*. Transmountain, 27 Feb. 2020, www.transmountain.com/news/2020/lower-nicola-indian-band-development-corp-will-own-and-operate-the-new-kingsvale-electricity-transmission-line.

This will be the first electricity transmission line to be constructed, majority-owned, operated, maintained and financed by an Indigenous group in Canada. This project will provide valuable economic benefits to the Lower Nicola Indian Band."

Kevin Ainsworth, General Manager, LNIBDC[37]

Institutional financing for the project was led by the Alberta Treasury alongside other major financial institutions. The construction contract with Valard included provisions for employment and contracting opportunities for LNIB members, and the ongoing operations and maintenance contract will provide steady revenue for the Band. This contract is structured similarly to a power utility's base rate, with the investment costs built into base rate for electricity.

[37] Ibid.

A HYPOTHETICAL CASE STUDY – KITIMAT TRANSMISSION LINE

Inspired by First Nations-ownership of infrastructure projects elsewhere in the country, BC MPC members identified the Kitimat Transmission Line as a promising hypothetical case study on how multiple BC First Nations could work together to secure ownership of a major transmission line.

The current BC Hydro 287 kV transmission line that services the region is insufficient to provide the amount of power required by a BC LNG plant and will need to be upgraded or replaced. [38]

The Kitimat Transmission Line, initially described in the first MPC report [39], is a 530 km, $1.8 billion, 1,000 MW, ±500 kV bi-pole transmission line project that would provide power to the proposed Chevron-Woodside liquid natural gas (LNG) facility in Kitimat, BC. The Kitimat LNG facility is designed as an all-electric operation using clean hydro-electric power to produce 18 million tonnes of LNG per annum (6.0 MTPA/train). [40]

The proposed transmission line would connect to existing north-south BC Hydro lines near Prince George.

Why this project?

This project was chosen as a hypothetical case study for the following reasons:

Existing First Nation commercial structure: The majority of the project impacted 16 First Nations have an existing commercial partnership in the form of the Pacific Trails Pipeline (PTP) First Nations Limited Partnership (FNLP) (http://bcfnlp.ca/). FNLP is $500 million+ commercial partnership by and for First Nations who, together, negotiated and concluded a commercial benefits agreement regarding the Pacific Trail Pipelines (PTP) project, a proposed 480-kilometre pipeline designed to transport natural gas from Summit Lake, British Columbia, to proposed Kitimat LNG export terminal in Kitimat. Chevron Canada Limited (Chevron) and Woodside Petroleum (Woodside) jointly own the proposed PTP Project. FNLP's 16 member First Nations inlcude Haisla, Kitselas, Lax Kw'alaams, Lheidli T'enneh, McLeod Lake, Metlakatla, Moricetown (Witset), Nadleh Whut'en, Nak'azdli, Nee Tahi Buhn, Saik'uz, Skin Tyee, Stellat'en, Ts'il Kaz Koh, West Moberly and Wet'suwet'en.

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[38] Link, Rod. *We Don't Have Enough Power for Kitimat LNG – BC Hydro*. Kitimat Northern Sentinel, 19 Apr. 2019, www.northernsentinel.com/news/we-dont-have-enough-power-for-kitimat-lng-bc-hydro/.

[39] *The Role of Indigenous People in Major Project Development*: *Paths for Indigenous Participation in Electricity Infrastructure*, pg. 29-30.

[40] *Project Overview*. Chevron Canada, 22 Aug. 2019, https://canada.chevron.com/our-businesses/kitimat-lng-project/project-overview.

Resolved shared/overlapping traditional territories issues: The 16 First Nations FNLP commercial partnership includes an internal agreement that resolves uncertainty over shared/overlapping traditional territories. Each of the 16 First Nations has agreed – for the purposes of the FNLP – to a fixed land interest percentage along the entire 530 km project route. This agreement resolves the commercial uncertainty of operating in shared/overlapping unceded territories.

Strong interest from impacted First Nations: MPC is aware of up to 16 First Nations who would be impacted by the transmission line. In 2018, MPC secured letters of interest from the majority of its members who are impacted by the project, mandating the organization to undertake feasibility work. The Coalition reached out to other non-MPC member impacted First Nations through the above mentioned 16 First Nation FNLP. MPC presented the First Nations with information on the long-term revenue, employment and commercial opportunities available via ownership of the transmission line. MPC members during the 2018 outreach are: Kitselas, Lax Kw'alaams, Lheidli T'enneh, Nadleh Whut'en, Nak'azdli, Saik'uz, Skin Tyee, Stellat'en, Ts'il Kaz Koh, and Whut'en. Additional First Nations impacted by the project have since joined MPC include: Nee Tahi Buhn, Wet'suwet'en First Nation, and Witset. Outreach to non-MPC member First Nations in 2018 included: Haisla, Metlakatla, McLeod Lake, and West Moberly.

Clean energy customer: In order to meet provincial carbon emission targets, Chevron-Woodside has re-engineered the Kitimat LNG plant liquefaction units to run exclusively on clean hydro generated electricity. Previous iterations of the Kitimat LNG facility included an option to generate electricity onsite by using natural gas-fueled generators.

Meets provincial clean energy targets: The transmission lines would allow the LNG facility to use clean hydroelectric power instead of greenhouse gas (GHG) intensive natural gas-fired power plants to produce LNG. The construction of the two transmission lines will ensure that BC LNG will be the cleanest LNG in the world in terms of GHG per unit.

Interested finance partners: The financial partners of other Indigenous-commercial electricity transmission line ventures in Canada have expressed strong interest in financing a possible Kitimat transmission line project. Several of the financial partners have mentioned that having 100% of the impacted First Nations already in a commercial structure that removes land use questions is extremely important to the success of project. Additionally, the project appears to qualify for Infrastructure Bank of Canada funding.

Follows successful Indigenous-commercial transmission line project model: The impacted 16 First Nations, with the assistance of MPC, have been in discussions with the First Nations, proponents, legal teams and financial partners of the previously highlighted transmission line projects to learn and replicate best practices.

BC Government commitment to UNDRIP Bill 41: BC Bill 41 commits the provincial government to *"… take all measures necessary to ensure the laws of British Columbia are consistent with the Declaration."*[41] As noted earlier in this report, facilitating First Nations fiscal autonomy is essential to implementing UNDRIP self-determination.

KITIMAT TRANSMISSION LINE

In 2018 MPC and Anbaric Development Partners ('Anbaric') began collaboration on a pre-feasibility report for the Kitimat Transmission Line Project. The line considered was a 1,000 megawatt (MW), ±500 kilovolt (kV) bi-pole electric transmission line linking Prince George and Kitimat. The prospective anchor customers for the project are LNG Canada, Kitimat LNG, BC Hydro and Rio Tinto Alcan, with potential future customers in other industries.

The jointly produced report contains a proposed selection of technologies, a methodology for route selection, preliminary findings on constructability, and pathways towards permitting, as well as the project business case, risk assessment, and general assumptions.

The following selected information is shared to highlight how a project proponent and BC First Nations could work together to implement a transmission line. [42]

NOTE: The pre-feasibility study was conducted under the assumption that the Kitimat LNG facilities would be powered primarily via on-site natural gas-powered generators. As such, the transmission line electricity demand was forecast to be up to 3 TWh, which is below the threshold for project viability. On April 3, 2019, Kitimat LNG announced that their liquefaction plant would be a 100% electric facility increasing the potential electricity demand up to 6.5 TWh which is the threshold for transmission line viability.[43]

Technical Details

The modelled scenario is a 1,000 MW, ±500 kV bi-pole DC transmission line with converter stations located at the Williston substation in Prince George and another in the greater Kitimat area, possibly at the Minette substation. A DC transmission line is used as a base case due to the desire to have a controllable asset, without the requirement for series compensation, and the increased ease of delivery of highly reliable power directly into the Kitimat area.

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[41] *Bill 41 – 2019: Declaration on the Rights of Indigenous Peoples Act*. Legislature Assembly of British Columbia, www.leg.bc.ca/parliamentary-business/legislation-debates-proceedings/41st-parliament/4th-session/bills/first-reading/gov41-1.

[42] This pre-feasibility information is shared with the approval of both parties.

[43] Bennett, Nelson. *Kitimat LNG Commits to Electrification*. Alaska Highway News, 4 Apr. 2019, www.alaskahighwaynews.ca/business/kitimat-lng-commits-to-electrification-1.23780438.

The transmission line comprises two phases of conductor (aluminum conductor steel reinforced – ACSR) in a two or three-bundle configuration supported on steel towers for the roughly 500km length from Williston to Kitimat. The towers vary in height but are generally in the order of 50 metres tall. They will utilize an overhead dedicated metallic return (two wires) above the conductors, in order to shield the conductors from lightning strikes and eliminate DC earth currents; thereby precluding any impact on existing facilities such as buried pipelines or railroads. There are two technology options to be considered for the converter stations, which are similar in cost. They are line commutated converter (LCC) or voltage source converter (VSC) stations. A technology which suits the system efficiency, power rating, and capital cost of the project will have to be selected.

The design and layout of the line will be carried out in accordance with all applicable legislation, standards, and codes (e.g., CSA C22.3, NO. 1-15 entitled Overhead Systems, and Technical Safety BC requirements). As an example, these standards specify such items as area-specific wind and ice loads to be applied to the design of the towers to ensure structural stability, and to the layout of the conductors to meet both vertical and horizontal clearances to the ground (e.g., vertical distance from the location/sag of the conductor under both maximum ice loadings, or maximum electrical loads to various categories of roads and railway crossings).

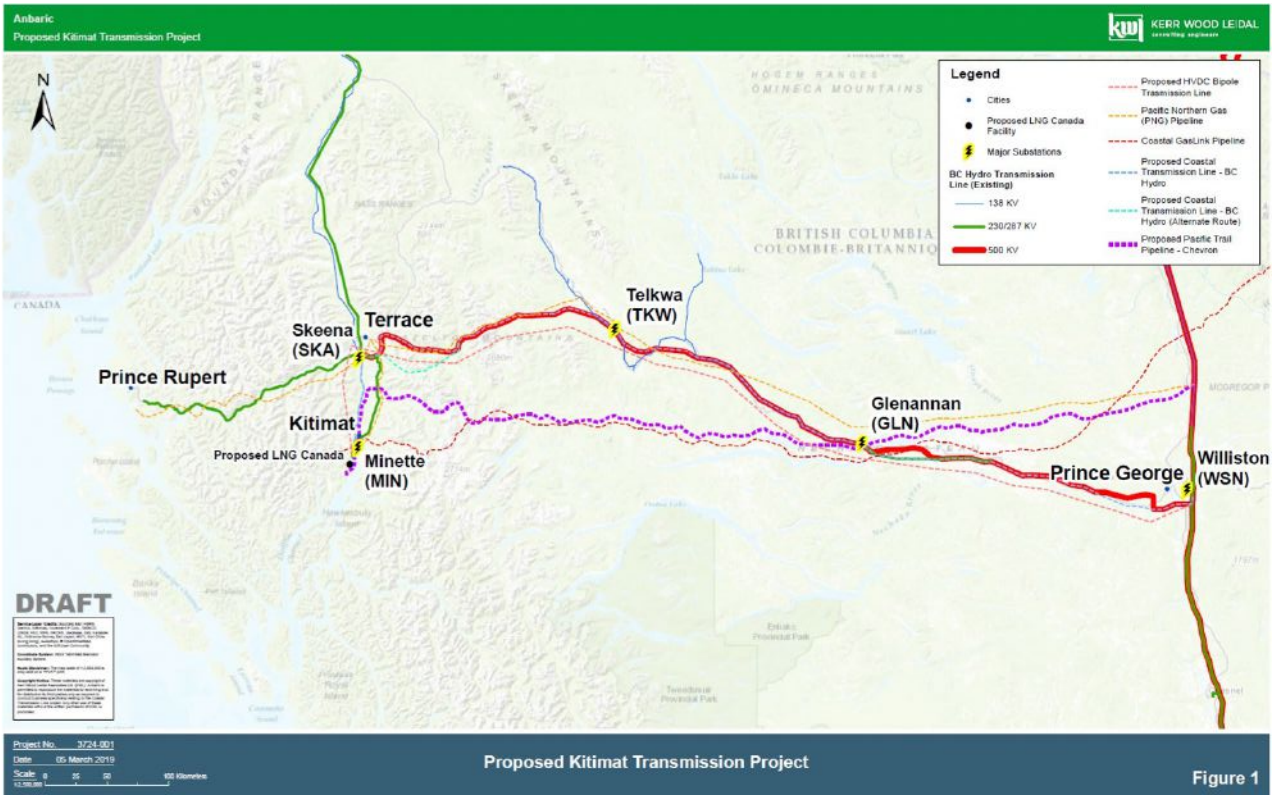
Routing

Three potential routing options were identified by a desktop study;

- Follow the existing BC Hydro 500 kV line that connects Prince George at the Williston Substation to the Kitimat area. Construction of the transmission line along an already existing transmission route yields many benefits as opposed to a new route, including a reduced environmental impact since less vegetation needs to be cleared from the path. From Skeena the line could run parallel to the existing 287 kV line from Terrace to Kitimat or could run on the west side of the valley on the route proposed by BC Hydro for the Coastal Transmission Line.
- Follow the existing 500 kV line from Prince George west until the proposed Coastal Gaslink pipeline (TransCanada) or the proposed Pacific Trails Pipeline (Chevron). From that point, the transmission line could be co-located with the pipeline infrastructure and be routed into the Kitimat area (this avoids routing via Terrace).
- Follow the existing 500 kV line from Prince George west until the existing Pacific Northern Gas Line (owned by AltaGas). From that point follow parallel to the Pacific Northern Gas line to Terrace and then follow the branch line to the Kitimat area.

Further technical, environmental, and social impact studies will be necessary to confirm these routing options, or sub-sets thereof. First Nations traditional knowledge, commercial considerations, and the accessibility of the aforementioned rights-of-way will be vital factors in the decision-making process.

Figure 16. Map – Kitimat Transmission Line



Source: Anbaric

Grid Impact Studies & Technical Permitting Requirements

The impact on the existing BC Hydro electrical grid must be considered, since the proposed transmission line connects to that grid. The proposed line would likely be subject to BC Hydro tariffs and regulations, specifically Tariff Supplement 87 (Agreement for Customers with an Indirect Interconnection to the BC Hydro System Taking Electricity Under and Applicable Rate Schedule) and Supplement 88 (Agreement for New Transmission Service Customers with an Indirect Connection to the BC Hydro System). The Proponent would have to apply to BC Hydro for studies to assess the impact of the proposed line on the existing grid. The application process includes the following steps;

1. Conceptual Review (optional)
2. Feasibility Study (optional)
3. System Impact Study: Identifies the facilities required and provides order of magnitude cost estimate of these facilities The scope of this study varies depending on the strength of the existing system and the complexities of the proposed connection. BC Hydro would provide a cost estimate for these studies prior to the work being undertaken. BC Hydro advises that a typical timeline is six to nine

months for a System Impact Study report, and approximately three to four months for the System Impact Study to Facilities Study transition.

4. Facilities Study: Confirms the preferred interconnection option and identifies more detailed technical requirements. At the completion of this study BC Hydro would provide a refined implementation cost estimate. BC Hydro would provide a cost estimate for these studies prior to the work being undertaken. BC Hydro advises that a typical timeline would average six to nine months, although the size and complexity of a project could extend that timeline.
5. Implementation: BC Hydro implements the interconnection work, including detailed design, procurement, construction, and commissioning. The proponent must make a full financial commitment before implementation work can begin.

A connection of a 10 MW generating plant to the BC Hydro grid cost in the order of $100,000 and required two years for the System Impact Study, which serves to illustrate the cost and timelines involved in this process. The proposed Project would probably cost $1 million or more and require several years in the study process.

Clearing and Construction

The right-of-way must be cleared prior to construction of the transmission line; which also includes constructing the main access roads. Clearing boundaries are determined by qualified foresters, marked in the field and reflected on covered drawings. These drawings, and other requirements (e.g. areas of hand-clearing only, disposal of timber and burning of slash, ecologically sensitive areas, schedule constraints to mitigate impacts on wildlife) are included in contract documents for clearing.

The actual construction of the transmission line follows, and includes;

- **Foundation Installation** – depending on the type of tower used at a particular site, the foundations usually consist of steel grillages, concrete foundations or rock anchors. Pile foundations are usually required in swampy areas. Equipment used in foundation installation would typically include backhoes and rock drills, depending on access constraints.
- **Tower Erection** – the tower material is delivered to each site, with the towers assembled in sections and erected by crane. If the site is helicopter-access only, the tower sections are assembled off-site and flown to the sites by helicopter and erected.
- **Conductor Installation** – wheel-like devices called travellers are attached to the bottom of each insulator string near the top of each tower. A helicopter, flying along the line, places a continuous wire through each traveller. That wire is attached to large pieces of equipment (called a puller and a tensioner), usually located about 3 – 5 km apart, and is used to pull the conductor, under tension, through the travellers. The correct tension and resulting conductor sag are calculated, and the travellers removed.

Construction of the proposed line will require a significant workforce and create many jobs around the project area. Many aspects of the construction; particularly access road construction, right-of-way clearing, and foundation installation; will present significant opportunities for local employment.

Schedule for Permitting and Construction

The following section presents two sample timelines from previous BC Hydro projects, from inception to in-service. The Northwest Transmission Line and the Nicola-Meridian Transmission Line were examined.

Northwest Transmission Line Case Example

BC Hydro's 287 kV Northwest Transmission Line is a 344km line from the Skeena substation near Terrace to a new substation near Bob Quinn Lake, generally following Highway 37. Key dates include the following;

Event	Date
Project description submitted to provincial Environmental Assessment Office	May 27th, 2007
Application for an Environmental Assessment Certificate (EAC) submitted	April 2010
EAC issued	February 2011
Request for Qualifications for construction contractors issued	Fall 2010
Design/build construction contract issued	Fall 2011
In-service	Summer 2014

It is assumed that public consultation, and agreements with various First Nations began prior to 2007, which means that the overall time frame from inception to in-service must have been seven to eight years. It should be noted that this project was exempt, by BC Government direction, from a review by the BC Utilities Commission (BCUC). Accordingly, BC Hydro was not required to apply to the BCUC for a Certificate of Public Convenience and Necessity (CPCN). This application and regulatory review would likely have required a public hearing and this would have added to the overall timeframe.

Nicola-Meridian Transmission Line Case Example

This 500 kV line from Nicola Substation near Merritt to the Meridian Substation in Coquitlam came into service in the fall of 2015, and generally ran parallel to an existing 500 kV transmission line.

Event	Date
Draft Terms of Reference for an EAC submitted	June 2007
Application for an Environmental Assessment Certificate (EAC) submitted	November 2008
EAC issued	June 2009
Application to BCUC for CPCN	November 2007

CPCN issued	August 2008
Clearing	2010-2011 (estimated)
Design/build construction contract issued	Late 2011
In-service	Late 2015

Assuming public consultation and agreements with First Nations prior to 2007, the overall time frame was likely to be eight to nine years. As this requirement may be necessary for the Project, it is expected that a similar timeframe could be expected for the Project.

Financial Details

This section presents selected high-level financial and economic analysis of the Project as laid out in the pre-feasibility report, as well as the associated development risks and further areas of study. As the report is now almost three years old, the capital cost information will need to be updated.

Project Financial Model

The vision for the financing of the Project involves the creation of a special purpose vehicle transmission corporation ("SPV" or "TransCo") that would be jointly held by the Project Communities, a joint venture partner, and a major Canadian institutional investment fund ("CIIF").[44] The TransCo would be structured to benefit from various sources of funds for the development, commercial financing, construction, commissioning and operations phases. The TransCo would collect revenues via a tariff that would be collected on quantities of energy shipped over the transmission line. These revenues will pay down debt associated with the project, sustain operations of the asset, and create a return on investment for the Proponent. The following assumptions were used to derive an understanding of the overall viability of the Project's financial model.

Capital structure, anticipated debt financing terms and available equity sources

Development funding available from third-party sources

The province's CleanBC program has been identified as a major source of potential funding for First Nations to help advance early-phase development work. This funding would represent an early-phase, at- risk capital contribution on behalf of First Nations.

[44] The institutional investment fund has requested their name not be used in this report.

First Nations entities

The First Nations Finance Authority is viewed as a resource during the commercial financing phase. The FNFA can assist in preparing a bond issuance or other financial instrument which will assist Project Communities in engaging with the Canada Infrastructure Bank and commercial lenders to drive forward the Project.

Canada Infrastructure Bank

The Canada Infrastructure Bank can help with the financing of the equity role of First Nations during the development process, which will in turn help the Proponent during the commercial financing phase, once a proper mandate is received from the Project Communities.

Equity investment from Project Communities

The Project Communities may invest their own equity into the Project. MPC has indicated that there are existing sources of equity for some of the Project Communities.

Required contracted power transmission price ($/MWh) and contract term required to make the Project economically feasible

An energy tariff of $10/MWh from BC Hydro would produce a blended rate in the $40/MWh range. Chevron may have valid commercial reasons to proceed at an above-market price.

Assessment of Marketplace Opportunities

Global LNG Market

A 2017 white paper conducted by ESAI Energy LLC stated that by 2025 a new "wave of LNG liquefaction will be needed as demand catches up and then exceeds supply."[45] The white paper finds that this bodes well for "integrated projects backstopped by large project sponsors with strong balance sheets or small floating projects both focused on developing stranded gas reserves." BC's relative proximity to Asian markets and recent, large upstream investments by global LNG players in the Montney and Horn River basins create a strong case for further downstream investments in liquefaction facilities.

LNG Canada

The positive final investment decision by the LNG Canada consortium, led by Shell Canada, presents evidence of the viability of the large-scale liquefaction industry in BC. The ancillary power needs of LNG Canada will be in the range of 2TWh per year. LNG Canada CEO, Andy Calitz announced at an industry event in November that 100MW of this load (or about .75TWh) is already under contract with BC Hydro, although no public documentation exists on the

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[45] *Riding the Wave: An Assessment of the Global LNG Market to 2025*. Global LNG Hub, 9 Mar. 2018, https://globallnghub.com/articles/riding-the-wave-an-assessment-of-the-global-lng-market-to-2025.

matter. There have not been any announcements around the electrification of the liquefaction 'drive-trains' at the LNG Canada site, and none are expected as the plants are now under construction.

Kitimat LNG

If the Kitimat LNG project, led by Chevron Canada, also makes a positive final investment decision, the aggregate, annual firm energy requirement for ancillary power at the site will reach roughly .8TWh. A shift to electrified drive trains at Kitimat LNG could create as much as 6.5TWh of load in the Kitimat area.[46]

BC Hydro

BC Hydro is a prospective customer for reliability purposes. The existing 500kV AC transmission system terminating at the Skeena substation faces reliability challenges and will not be able to shoulder a dramatic increase in demand in the Kitimat area that will be caused by both LNG facilities coming online. A more robust supply into the Kitimat area will alter the energy flows on the existing AC line, unlocking the value of this asset for BC Hydro. With this said, with engaging in commercial discussions it is hard to predict for how much power BC Hydro would contract if the Project comes online.

Rio Tinto Alcan

Rio Tinto Alcan produces 896MW of power at its Kemano Dam facility in order to power its smelting operations in Kitimat. With access to grid power, Alcan may contract for capacity and/or energy that will allow it to more flexibly trade power with the BC Grid and/or export surpluses via BC Hydro's trading arm, Powerex, while maintaining its aluminium production levels. This project may be very valuable to the company, but again, it is hard to predict for how much power they would likely contract if the Project comes online.

Other customers

Kitimat's continued industrial expansion may provide long-term value to the project, but no clear target customers exist in the region yet. Mining, methanol, and hydrogen production ventures have been proposed for the region by various parties, and all of these are energy intensive industries.

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[46] Bennett, Nelson. *The 'Tesla of LNG': Kitimat LNG Commits to Electrification: Oil & Gas*. JWN Energy, 5 Apr. 2019, www.jwnenergy.com/article/2019/4/tesla-lng-kitimat-lng-commits-electrification.

Prince Rupert

The Port of Prince Rupert has grown rapidly in the last decade because of trade with Asia. The Port has an ambitious growth strategy and is poised to attract industrial activity from a wide range of sectors. The Port itself is a potential customer for power, as BC's ambitious CleanBC strategy will compel the electrification of such major industrial hubs. If the Project were to move ahead in the development process, the Proponent should investigate the economics of expanding the transmission system into a multiterminal system that would service Prince Rupert.

Ontario's Aboriginal Loan Guarantee Program (ALGP)

The ALGP is administered by the Ontario Financing Authority in order to support Aboriginal participation in green energy projects, including transmission, solar, wind, and hydroelectric generation.[47] The program *"provides a Provincial guarantee for a loan to an Aboriginal corporation to purchase up to 75 per cent of an Aboriginal corporation's equity in an eligible project, to a maximum of $50 million"*, and is available only to corporations which are wholly-owned by Aboriginal communities.[18]

The ALGP is an example of the type of innovative financial program which could be used to promote Indigenous self-determination in British Columbia.

Summary commercial case and key questions for future study/consideration

In order to be 'in the ballpark' financially speaking, upwards of 6.5TWh of demand is required. An announcement around e-drive liquefaction units in Kitimat would change the financial picture of the Project.[48]

According to a white paper produced by Clean Energy BC, a medium sized LNG facility similar to Kitimat LNG would require 750MW of capacity and would consume as much as 6,390 GWh/year.[49]

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[47] *Overview of the Aboriginal Loan Guarantee Program (ALGP)*. Ontario Financing Authority, www.ofina.on.ca/algp/program/overview.htm.
[48] Bennett, Nelson. *Kitimat LNG Commits to Electrification*. Alaska Highway News, 4 Apr. 2019, www.alaskahighwaynews.ca/business/kitimat-lng-commits-to-electrification-1.23780438.
[49] *Electrification of British Columbia White Paper October 2018*. Clean Energy BC, 11 Feb. 2020, www.cleanenergybc.org/reports-publications/electrification-of-british-columbia.

Environmental Overview

This section looks at the environmental assessment (EA) process and projected environmental impacts, highlights associated risks and proposes areas for future study.

Assessment Process

Construction of the proposed transmission line will require vegetation clearing in the right-of-way (ROW), installation of access roads, tower foundation installation, erection of towers, installation of conductors, and restoration after completion of construction. Once the transmission line is operational, vegetation clearing will be required periodically to maintain clearance from the line.

The anticipated environmental effects of the proposed project must be assessed for significance in an EA under the BC Environmental Assessment Act (BC EAA 2002). Additional permits will be required for a subset of the surveys required to inform the EA as well as for salvage operations that may be required prior to construction. More details are provided below.

Regulatory requirements

Provincial

The project meets the requirements in the *Reviewable Projects Regulation* of British Columbia's *Environmental Assessment Act*, thus a provincial EA Certificate (EAC) is required before project construction and operation can occur. It should be noted that Bill C-51 – 2018, which proposes changes to the BC *Environmental Assessment Act* has passed and is anticipated to come into force in late 2019. As it currently stands, the length of time required to navigate BC EA process varies from project to project and can be expected to take two to four years to navigate from start to finish. This estimate is based on the amount of time needed for the following components of an EA, as follows:

1. Preliminary discussions with the BC Environmental Assessment Office (BC EAO) and First Nations;
2. Development of Project Description and Application Information Requirements;
3. Completion of baseline studies, with consideration of seasonal restrictions upon when certain baseline studies can occur (e.g., breeding bird surveys limited to spring/summer);
4. Amount of time required to develop an EAC application document; and
5. Government time limits for review and public comment periods built into the process.

As an example, the Project Description for the BC Hydro's Northwest Transmission Line was submitted in May 2007. The application for an EAC for the project was submitted in April 2010 and the Certificate was awarded in February 2011, almost four years after the Project Description was submitted. As another example, the Project Description for the BC Hydro

Interior to Lower Mainland Transmission Reinforcement Project was submitted in March 2007, and the project received its EAC in June 2009, 28 months after their Project Description was submitted. The Coastal Gaslink Pipeline, a linear infrastructure project in northern BC, took two years from the date it entered the Environmental Assessment Process (October 2012) to the date it received its EA Certificate (October 2014).

It is important to note that the above examples do not include the amount of time required to initiate preliminary discussions with the BC EAO or First Nations, develop a Project Description (as that information is not publicly available), or additional permitting that may be required prior to beginning project site preparation (vegetation clearing) and construction (see Other Legislation section below).

An estimated environmental permitting timeline for the proposed transmission line is shown in Appendix C. The timeline is based on current BC EA legislation and could change if the EA process is not started before the new legislation comes into effect.

Federal

Canadian Environmental Assessment Act

NOTE: The pre-feasibility study was completed under the Canadian Environmental Assessment Act 2012 (CEAA 2012). This federal act was replaced in 2019 by the Impact Assessment Act.

The Regulations Designating Physical Activities under CEAA 2012 define what projects trigger the need for a federal EA. These regulations state that transmission lines meeting or exceeding length and voltage thresholds (375kV and 75km) require an EA if they are also regulated by the National Energy Board (NEB). Because the transmission line does not cross interprovincial or international borders and thus would not be regulated under the National Energy Board, it does not trigger a federal EA. However, new impact assessment legislation to replace CEAA 2012 has recently been tabled (Bill C-69) and if adopted may change the requirements for federal impact assessment.

Fisheries Act

Permits are required for collection of fish as required for baseline data collection (for the EA), and for pre- construction fish salvage if construction will affect fish habitat when fish are present in effected watercourses.

A Request for Review of the predicted project impacts is required and may lead to the need for an Authorization if the project is anticipated to cause serious harm to fish. There is no time limit for the Request for Review Process and the timeline for an Authorization application to be processed is up to 150 days.

New legislation has been tabled to replace the 2012 Fisheries Act (Bill C-68) and if adopted may change the requirements for fish and fish habitat protection and permitting.

Species at Risk Act

This Act protects species designated in Schedule 1 of the Act and permitting is required if effects to species at risk or their critical habitat are anticipated.

First Nations

The MPC is in the process of finalizing two 'road map' documents for project developers, which will help ensure proper and timely engagement of First Nations communities along the route, whether or not they are participating in the Project's development.

Environmental Stewardship Framework

The *Environmental Stewardship Framework* [50]describes six areas of service that the Environmental Stewardship Technical Team (ESTT) of the FNMPC can offer to member First Nations. The document provides some insight into areas where First Nations have experienced a lack of capacity to properly participate in the EA process in the past and where opportunities exist for Anbaric to offer support. One example of an opportunity for proactive cooperation with First Nations is with the Community Readiness Assessment Tool that the ESTT has developed for First Nations to use to assess gaps in their ability to participate in the EA process. This is a tool that the Proponent could support for implementation for all potentially affected First Nations along the transmission line route and account for the time required to complete this assessment and address any gaps identified before initiating the EA process.

Major Projects Assessment Standard

We understand that the *Major Projects Assessment Standard* [51]provides principles, criteria, and other guidance and expectations for major project environmental assessments. The document is intended as a checklist for use by FNMPC member First Nations to ensure their environmental standards are met. The opportunity exists for the Proponent to incorporate this checklist over the course of the development of their EAC application.

Municipal

The transmission line will likely cross several municipalities, each with their own bylaws. These bylaws may cover erosion and sediment control, tree removal, official community plans, etc. Determination of applicable municipal legislation requires further study.

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[50] First Nations Major Projects Coalition, https://www.fnmpc.ca/environmental-stewardship.
[51] First Nations Major Projects Coalition, https://www.fnmpc.ca/s/FNMPC-MPAS-FINAL.pdf.

Archeology

An assessment of potential impacts of the project on archaeological (heritage) resources will need to be included in the EA. This will require baseline surveys, and archaeological assessments. Applicable legislation outside of the EA process is the *Heritage Conservation Act* (HCA). Under the HCA a permit is required to excavate or alter a provincial heritage site and to remove, move, or alter heritage objects from it. This Act would require studies to determine if heritage sites are present in the proposed transmission line ROW, and then permitting if sites are present and would need to be removed, moved, or altered for construction of the project.

Schedule

The GANTT chart in Appendix C gives an overview of the environmental permitting schedule. With recent BC Hydro transmission builds as a guide, it can be anticipated that major permitting work will take roughly three years from submission to receipt of required permits.

Environmental impacts

Potential environmental effects of the project that will need to be considered include, but are not limited to, changes to the following items (both on a project specific and a cumulative scale):

- fish habitat;
- migratory bird habitat;
- raptor habitat;
- vegetation and wildlife species at risk and their critical habitat;
- mammal habitat;
- wetland communities;
- ecological communities at risk;
- old growth forest;
- hydrology;
- land and resource use;
- traditional land and resource use;
- heritage sites (archaeology);
- greenhouse gas emissions;
- air quality, and;
- human and ecological health.

The EA process can be expected to be 2-4 years in length from start to finish. A great deal of up-front effort will be required to create more predictability for the timing and execution of this effort. Co-location of the Project in existing rights-of-way will also help advance this timeline. As noted above, it is hoped that the MPC Environmental Stewardship Framework and Major Projects Assessment Standards processes can also assist with expediting the permitting work. The proposed federal Bill C-69, and the question over whether it will be introduced prior to the October 2019 election, creates some risks as well. Still, it is not expected that the possible

change in legislation will have a major effect on the Project – the most pressing development challenge from an environmental standpoint remains the permitting timeline.

Social, Political, and Legal Overview

This section reviews social, political and legal considerations, highlights associated risks and proposes areas for future study and discussion between Anbaric, MPC, and First Nations.

Social acceptability

Anbaric has been involved in discussions with First Nations via the MPC since January of 2018, with a goal of collaborating to develop projects that benefit the economy and environment of British Columbia. In November of 2018, Anbaric was invited to submit a proposal for the co-development of a bulk transmission line to Kitimat from Prince George, resulting in this report. The Project would be a vital infrastructure link that would enable the trade of renewable electricity. Despite some social and political controversy over the development of BC's natural gas resources, the export of LNG to foreign markets is expected to help reduce global greenhouse gas emissions, especially if upstream and liquefaction facilities are deeply electrified. The Regional Electricity Cooperation and Strategic Infrastructure Initiative ("RECSI") conducted by NRCan in 2017-2018 *"found significant potential for GHG reduction from electrification of these [natural gas] projects."*[52]

Equity participation

The Project Communities wish to engage in the co-development of the Project including equity participation in its financing. Such opportunities are enabled by the various financial institutions enumerated above, and Anbaric believes these arrangements can enable the development of projects.

Project governance

As written above, the Proponent will structure the company to maximize the benefits of local, regional, provincial and national regulatory, tax and funding regimes and funding programs. This will involve various structures where equity roles and project development roles and responsibilities are clearly laid out. Ultimately, any resulting partnership needs a clear governance structure set up by the Project Communities. Clear guidelines are needed which help delineate which First Nations entities will be Project Communities, or serve as equity, decision-making partners in the development effort.

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[52] "*Regional Electricity Cooperation and Strategic Infrastructure Initiative Western Region Summary for Policymakers.*" Natural Resources Canada (August 2018) p.13, https://www.nrcan.gc.ca/sites/www.nrcan.gc.ca/files/energy/clean/RECSI_WR-SPM_eng.pdf.

Political considerations

Political risk assessment

The current BC political arena is very friendly to the co-development of the Project. The development of the LNG industry has widespread political support. The Project meets the requirements of a mixture of policy imperatives for both the ruling New Democratic Party and the opposition Liberal Party. The Green Party, while a small minority in the BC legislature, is not projected to deter the development of the Project – a renewable energy asset that can outlive pipeline infrastructure. Furthermore, the pursuit of reconciliation with Indigenous peoples, enabling the long-term trade and development of renewable energy resources, and the strengthening of western Canadian gas markets are all in the national interest of Canada. It is anticipated that BC Hydro will not hinder the development of the Project because of the widespread support for the issues above by its shareholder, the Government of British Columbia.

Legal requirements

BC Hydro

BC Hydro has the right to supply power, including the development and operation of transmission facilities, in BC.[53] The right is not exclusive to BC Hydro. Fortis BC owns a high-voltage electricity transmission system and utility business over a wide service area in southern BC.[54] As noted above, BC Hydro Tariffs 87 and 88 allow for third-party development and ownership of transmission assets, although the tariff only applies in scenarios where one customer is being fed by the facility. This poses challenges that will need to be addressed via regulatory changes if the Proponent proposes to deliver power to more than one customer. As noted above, there is strong reason to believe there will be political support to allow a third-party to develop and own this asset. This is where new regulations enabling the development of First Nations utilities would be crucial.

BCUC Regulation

The Project will be regulated by the BC Utilities Commission on a basis of economic regulation. It can be expected that any administration will, via an order in council, direct the BC Utilities Commission to review the project. This will involve public hearings and necessitate rate impact studies.

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[53] *"Hydro and Power Authority Act"* [RSBC 1996] CHAPTER 212, at s12(1.1a), BCLaws, http://www.bclaws.ca/EPLibraries/bclaws_new/document/ID/freeside/00_96212_01#section2.
[54] *"Our Service Areas",* Fortis BC, https://www.fortisbc.com/about-us/our-service-areas.

First Nations law and customs

Role of MPC

The MPC will act as a facilitating body to move the project through to development. Upon the formation and staffing of a special purpose vehicle transmission corporation, the MPC is expected to step away from the development process. This could take 1-2 years, even if development moves at a fast pace. The Proponent may continue to work with the MPC in other fashions based on future considerations.

Involvement of elected and hereditary chiefs

The lack of engagement of hereditary chiefs in BC has caused controversy for the development of projects in the province. MPC's membership is inclusive of elected and hereditary leaders, and MPC recognizes the importance of engaging both hereditary chiefs and elected bodies and will work to ensure that an inclusive development strategy is deployed. The Project Communities will need to work on this unique governance issue in order to ensure a positive outcome for the Project.

Summary social, political and legal case and key questions for future study/consideration

There is a legal and political pathway to develop the Project in BC. Special attention will have to be paid to the Project's governance structure, and how new/other Project Communities are selected to join the development consortium – with a special focus paid to the matter of engagement of hereditary chiefs. Secondarily, the Proponent will need a positive signal from government to continue development, including a better understanding of the legal standing of third-party developers, considering that tariffs 87 and 88 only contemplate transmission assets that feed a single customer. An order-in-council or regulatory changes may be necessary to pursue the development of this project.

OTHER ISSUES TO BE ADDRESSED

This report is focused on how First Nations could be infrastructure owners in BC's electricity transmission infrastructure. It is important to note that BC First Nations have told MPC that they have additional interests in participating in other parts of the provincial electricity sector. For the sake of brevity, the following issues are noted for future studies.

Past the Meter

While generation, transmission and distribution make up the supply side of the electric power system, there is also growing interest among First Nations to participate in the commercial opportunities that happen 'past the meter'. Past the meter is a broad term which refers to what happens on the energy user's side of the meter which measures their electricity consumption. It includes battery storage, micro-generation using solar, wind or micro-hydro, demand

management technologies, and other uses.[55] These projects are likely to be increasingly important to the BC energy system.

Wheeling Rates and Pricing Policies

Wheeling is the transportation of electricity from a generation site to an end user via another company or power authority's transmission lines at a competitive rate.[56] Wheeling allows a First Nation-owned generation facility to deliver electricity to a customer elsewhere using BC Hydro transmission lines. BC Hydro's wheeling rates and pricing policies are of interest to First Nations.

First Nations Energy Exports to U.S. Tribes or other U.S. Customers

While researching Part I of this report, MPC contacted a number of U.S. tribal-owned electric utilities and tribal electric sector industry associations. In the U.S., tribal-owned utilities trade energy across states to service their respective customers. The U.S. tribes expressed interest in the possibility of B.C. First Nations supplying power for use by their utilities and/or direct sales to customers in the Western U.S.

Provincial and/or Regional First Nation Utility Regulation or Agency

On April 30, 2020, the British Columbia Utilities Commission (BCUC) issued its *Final Report for the Inquiry into the Regulation of Indigenous Energy Utilities*[57] to the Minister responsible for the *Hydro and Power Authority Act*. Numerous BC First Nations and organizations (including MPC) participated in the BCUC Inquiry. BC First Nations remain interested in the recommendations contained in the report, and the response of the Minister.

Traditional Territories vs. Reserve-based Operating Areas

BC First Nations – for the most part – are unceded territories and consider their interests to be on the traditional land base, not the federally imposed Indian reserves. As BC moves to towards implementing UNDRIP, the issue of a shared or overlapping jurisdictions must be addressed.

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[55] Manzaroli, Julietta. *What Is 'Behind the Meter' - An Introductory Guide for Your Business*. Anesco, 25 Oct. 2019, https://anesco.co.uk/what-is-behind-the-meter/.

[56] *Wheeling (Electric Power Transmission)*. Wikimedia , 16 Oct. 2019, https://en.wikipedia.org/wiki/Wheeling_(electric_power_transmission).

[57] *NEWS RELEASE – BCUC Releases Final Report for Indigenous Utilities Regulation Inquiry*. "GlobeNewswire", 1 May 2020, www.globenewswire.com/news-release/2020/05/01/2026288/0/en/NEWS-RELEASE-BCUC-Releases-Final-Report-for-Indigenous-Utilities-Regulation-Inquiry.html.

Revenue Sharing Distribution to First Nations

While the Kitimat Transmission Line outlined in this report has a sharing formula in place for the impacted 16 First Nations, there is a need for a province-wide agreement for how to involve all First Nations in BC's electricity sector wealth generation.

Indigenous Access to Capital

It would be in the interests of BC First Nations and the BC Government to implement an Indigenous loan guarantee mechanism similar to the Ontario Financing Authority's *Ontario Aboriginal Loan Guarantee Program.*[58] A BC version of this program would allow First Nations to secure financing at more favourable rates to invest in major projects.

CONCLUSION

The Kitimat Transmission Line is a compelling case-study, because it already has strong interest from the impacted First Nations, follows proven private sector financing models, and avoids the complexity of a rebuild or expansion of the existing BC Hydro transmission line.

Whereas a rebuilding of the existing line by BC Hydro would require lengthy consultations, hearings, reviews and approvals, an additional "dedicated" Kitimat Transmission Line can be approved relatively quickly. As such, it affords four important principles to consider for Indigenous-owned infrastructure projects moving forward:

- Case-specific solutions can be easier to implement – The Kitimat Transmission Line addresses the unique local needs of the LNG industry, by leveraging an existing transmission-line corridor, in a way that meets the unique interests of the First Nations in the region. Problem-solving is often easier when focusing on the specific versus the abstract.
- Leverage existing assets and agreements – It is often easier to resolve questions of scope, revenue-sharing and governance within First Nations when those communities have already considered and agreed on those questions in other projects.
- Indigenous access to capital – In order to replicate the existing successful Indigenous-owned infrastructure models highlighted in this report, a BC Indigenous loan guarantee program similar to the Ontario Financing Authority's *Ontario Aboriginal Loan Guarantee Program*[59] should be initiated by BC.
- Value for the BC taxpayer and ratepayer – First Nations as infrastructure partners could reduce the need for BC Hydro to assume public debt for transmission projects.

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[58] Ontario Financing Authority, Aboriginal Loan Guarantee Program, https://www.ofina.on.ca/algp/

[59] Ontario Financing Authority, Aboriginal Loan Guarantee Program, https://www.ofina.on.ca/algp/

More important, the Kitimat Transmission Line highlights the mutually-beneficial opportunity for First Nations to be directly involved in enabling the Province of BC's economic agenda.

Indigenous people want to be involved in energy generation, transmission and distribution projects provided that the risks and benefits are shared in mutually acceptable manner. Indigenous people worldwide are actively pursuing and participating in similar electricity infrastructure projects. Other Canadian provinces are showing how this vision can be enabled.

The Province of BC has an opportunity to assume a global leadership role in driving infrastructure ownership opportunities for Indigenous peoples. The template exists. The desire of First Nations is real. The capital is available. The commitment of government, business, investors, and lenders is growing.

As this paper highlights, the Province's vision of prosperity and opportunity for all will only be achieved when Indigenous peoples are fully included and active participants in the provincial economy.

APPENDIX A – SELECTED INDIGENOUS CAPITAL ACCESS INSTRUMENTS

Fort McKay East Tank Farm Development: A Case Study on Bonds

The East Tank Farm Development is a bitumen storage, blending, and cooling facility operated by Suncor in the Wood Buffalo region of Alberta.[60] The Fort McKay First Nation (FMFN) owns 34.3% of the project, while the Mikisew Cree First Nation own 14.7% for a total of 49% ownership by First Nations. In order to purchase the equity from Suncor, the First Nations financed a $545 million bond issue, which was led by the Royal Bank of Canada's Capital Markets division and completed in November of 2017.[61]

Security for the bonds is *"provided not by FMFN's other business assets, but by the bitumen that three major producers are contractually obliged to provide for the next 25 years."*[62] This refers to the "take or pay" contracts which guarantee cash flows and create an extremely dependable income for the investment, an environment which is suitable to long-term, low-risk investment vehicles like bonds. The bond has a coupon rate of 4.14%, and is due in 2041.[63] It was the largest business investment by a First Nation entity in Canada, and the bond issue was oversubscribed by three times, which shows a strong interest in this style of financing.[64] A large part of the success of this deal was the steady cash flow generated by terminal fees, which were cited by DBRS Ltd. as prominent reasons to give the bond issue a high credit rating of triple-B.[22] Another important factor was the long-standing relationship of trust and respect between the CEO of Suncor and the respective chiefs of the FMFN and the Mikisew Cree First Nation.

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[60] *Suncor Partners with First Nations on East Tank Farm Development*. Suncor Connections, Nov. 2016, https://connections.suncor.com/regional-municipality-wood-buffalo/november-2016/suncor-partners-with-first-nations-on-east-tank-farm-development/.

[61] *The East Tank Farm Deal*. Fort McKay First Nation, 27 Nov. 2017, http://fortmckay.com/suncor-energy-and-fort-mckay-first-nation-etf/.

[62] Flanagan, Tom. "*The Community Capitalism of the Fort McKay First Nation.*" Fraser Institute, 2018. https://www.fraserinstitute.org/sites/default/files/community-capitalism-of-the-fort-mckay-first-nation.pdf.

[63] Heaps, Toby A.A. *Oil and Water*. Corporate Knights, 17 Apr. 2019, www.corporateknights.com/channels/leadership/oil-water-15554913/.

[64] Lewis, Jeff. *Bond Issue Led by Alberta First Nations Raises $545-Million for Suncor Deal*. The Globe and Mail, 22 Nov. 2017, www.theglobeandmail.com/report-on-business/industry-news/energy-and-resources/bond-issued-by-alberta-first-nations-raises-545-million-for-suncor-deal/article37055918/.

Ontario Aboriginal Loan Guarantee Program

Due to the lack of credit history for many First Nations, the cost of borrowing can greatly exceed the rate of return on a major project.[65] In order to decrease the risk, and secure more favourable rates for First Nations, the Ontario Government created the *Ontario Aboriginal Loan Guarantee Program* (ALGP) in 2009.

From the Program website:

- The $650 million Aboriginal Loan Guarantee Program supports Aboriginal participation in renewable green energy infrastructure in Ontario including transmission projects and wind, solar and hydroelectric generation projects.
- The program provides a Provincial guarantee for a loan to an Aboriginal corporation to purchase up to 75 per cent of an Aboriginal corporation's equity in an eligible project, to a maximum of $50 million.
- By participating in eligible renewable energy projects, First Nation and Métis communities can benefit from jobs and training as projects are developed and from dividends once projects come into service.
- Loan guarantees are provided under the program no earlier than at the point of financial close for the project, after regulatory approvals are in place and at the same time, or after, all other financing is put in place.
- The Ontario Financing Authority (OFA) administers the program on behalf of the Province.
- The ALGP requires a sufficient level of due diligence in order to satisfy eligibility criteria and to draft the required underlying legal agreements. The applicant is required to obtain financial and legal advice, and may incur costs passed on from the lender. The OFA and the Province will not be responsible for any costs and/or expenses incurred by the applicant related to the ALGP application and review process, and the applicant will not be able to recover any such costs or expenses from the ALGP. As the scale of these costs is similar, regardless of the size of the application, a small application may not be cost-efficient. The ALGP is better suited for applications greater than $5 million.
- The Aboriginal Loan Guarantee Program is a discretionary, non-entitlement program. Any decision to provide a loan guarantee will be at the sole and absolute option of the Province. This means that even if an application meets the program objectives and criteria, the Province is under no obligation to provide a guarantee. Assistance in the form of loan guarantees is limited. [66]

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[65] *The Positive Legacy of Ontario's Aboriginal Loan Guarantee Program*. Olthuis Kleer Townshend LLP, 31 Oct. 2016, www.oktlaw.com/positive-legacy-ontarios-aboriginal-loan-guarantee-program/.
[66] *Overview of the Aboriginal Loan Guarantee Program (ALGP)*. Ontario Financing Authority, www.ofina.on.ca/algp/program/overview.htm.

APPENDIX B – KITIMAT TRANSMISSION LINE FIRST NATIONS

Name	Address	Population	Links
Haisla Nation	500 Gitksan Ave. Haisla PO Box 1101 Kitamaat Village, B.C. V0T 2B0	~1700 (~50% in Kitimat)	https://haisla.ca/
Kitselas First Nation	2225 Gitaus Road, Terrace, B.C. V8G 0A9	~700	https://kitselas.com/
Lax Kw'alaams Band	206 Shashaak Street Lax Kw'alaams, B.C. V0V 1H0	~3800	http://laxkwalaams.ca/
Lheidli T'enneh First Nation	1041 Whenun Road Prince George, BC V2K 5X8	~450	https://www.lheidli.ca/
McLeod Lake Indian Band	Main Adminstrative Office General Delivery McLeod Lake, BC V0J 2G0	~515	https://www.mlib.ca/
Metlakatla First Nation	PO Box 459 Prince Rupert, BC V8J 3R2	~800	http://www.metlakatla.ca/
Moricetown Indian Band	#3-205 Beaver Road, Witset, BC	~1790	https://www.witset.ca/
Nadleh Whut'en First Nation	PO Box 36 Fort Fraser, BC V0J 1N0	~560	http://www.nadleh.ca/
Nak'azdli First Nation	PO Box 1329 101 Kwah Road East Fort St. James, BC V0J 1P0	~2000	https://nakazdli.wpcomstaging.com/
Saik'uz First Nation	135 Joseph St Vanderhoof, British Columbia V0J 3A1	~1000	https://www.saikuz.com/
Skin Tyee First Nation	Campbell Rd. Burns Lake, BC V0J 1E0	~140	http://www.wetsuweten.com/ communities/skin-tyee/

Stellat'en First Nation	Stella Road, P.O. Box 760 Fraser Lake, BC V0J 1S0	~550	http://www.stellaten.ca/
Ts'il Kaz Koh First Nation (Burns Lake Indian Band)	653 West Hwy 16 Bag 9000 Burns Lake, BC V0J 1E0	~130	http://www.burnslakeband.ca/
West Moberly First Nations	Box 90 Moberly Lake, BC V0C 1X0	~305	http://www.westmo.org/
Wet'suwet'en First Nation	205 Beaver Road, Suite #1 Smithers B.C. V0J 2N1	~240	http://www.wetsuweten.com/
Nee Tahi Buhn Indian Band	R.R.#2, Site 7, Comp 28 Burns Lake, BC V0J 1E0	~320	http://www.wetsuweten.com/ communities/nee-tahi-buhn/

APPENDIX C – KITIMAT TRANSMISSION LINE ENVIRONMENTAL ASSESSMENT GANTT CHART