BRIEFING NOTE
Event / Engagement
May XX, 2023

ISSUE: Yukon - British Columbia Grid Connect

KEY ISSUES

- To implement the Government of Yukon's climate change policies and ensure grid reliability and stability, the Yukon needs more dependable energy capacity and supply.
- With the addition of the Site C Dam, it is expected that British Columbia has the potential to supply the Yukon with the renewable power it requires to drive economic growth and reach net-zero emissions by 2050.

CONTEXT

- Population growth, the electrification of key greenhouse gas emitting sectors (transportation and heating) and activities driven by the emerging importance of critical minerals are anticipated to increase demand for renewable electricity in the Yukon by 150 megawatts beyond what is planned for in Yukon Energy's current 10-year Renewable Electricity Plan.
- To maintain grid stability and reliability, additional dependable sources of renewable electricity supply are needed, beyond the Atlin Hydro Expansion and Moon Lake projects.
- The ownership model for this project is likely to include multiple First Nations equity stakeholders, similar to the model used for the Wataynikaneyap (Watay) Transmission Project in Ontario and the Kivalliq Hydro-Fibre Link between Manitoba and Nunavut.
- Large infrastructure projects in the North rely on significant cost-sharing with industrial electricity customers and the federal government.

SPEAKING POINTS

- *Yukon's energy landscape is rapidly transforming and our demand for renewable electricity is expected to surpass what we can supply within our own borders in the coming years.*
- *In Our Clean Future, the Yukon's strategy for climate change, the Government of Yukon committed to achieving a target of 97 per cent of electricity on the Yukon's main grid coming from renewable sources.*
- *The Yukon – British Columbia Grid Connect Project would be a key part of the Yukon maintaining this standard over the long term.*
- *The Grid Connect Project will be a large, complex, long-term infrastructure project that crosses multiple traditional territories and provincial/territorial borders.*

Prepared for: Premier
Prepared by: [name]
Department: ECO-IGR

- *Increasing the Yukon's renewable electricity supply supports our ambitious electrification goals to reduce greenhouse gas emissions from the two largest emission sources: transportation and heating.*
- *It also supports our growing mining industry developing critical minerals to help drive our Nation's transition to a green economy.*
- *Connecting the Yukon to British Columbia's electrical grid is a tremendous opportunity for shared growth and prosperity, economic reconciliation and a reduction in greenhouse gas emissions from fossil fuel use.*
- *We are initiating the work required to understand the interests and perspectives of Yukon First Nations governments and transboundary Indigenous groups, technical feasibility and options, and the potential cost and funding opportunities for this project.*
- *We are looking forward to advancing this project with our partners.*

PROVINCIAL/TERRITORIAL POSITIONS / YUKON FIRST NATIONS POSITIONS

- 67(3)(a), 74(1)(a) [redacted]
- 67(3)(a), 74(1)(a) [redacted].
- The following BC and Yukon First Nations (from south to north) would be affected by the construction of a connection:
    - Tahltan Central Government;
    - Kaska Nations (Kwadacha Nation, Dease River First Nation, Liard First Nation, and Ross River Dena Council);
    - Taku River Tlingit First Nation;
    - Teslin Tlingit Council;
    - Carcross/Tagish First Nation;
    - Kwanlin Dün First Nation;
    - Ta'an Kwach'an Council;
    - Champagne and Aishihik First Nations; and
    - Little Salmon/Carmacks First Nation.

BACKGROUND

Midgard Report – Yukon-British Columbia Interconnection Development Plan

- In 2019, Midgard Consulting produced the *'Yukon-British Columbia Interconnection Development Plan' The report identified three objectives for the project:*
    - Connect the Yukon electrical grid to the Canadian electrical grid via British Columbia;

  - Connect mining load to the Yukon electrical grid; and
  - Connect Watson Lake to the Yukon electrical grid.
- The report included preliminary cost estimates of close to $2 billion, which did not take into consideration any costs associated with negotiating or implementing agreements with affected First Nations.
- The proposed routing had four segments, which are as follows:
  - Tatogga, BC to Watson Junction to Takhini: 756 km, paralleling BC Highway 37 (Stewart-Cassiar) and Yukon Highway 1 (Alaska Highway).
  - Takhini to Carmacks: 158 km, following the existing 138 kV corridor parallel with the Klondike Highway.
  - Carmacks to Casino Mine: 180 km along the planned Casino access road from Carmacks.
  - Watson Junction to Watson Lake: 22 km along the Alaska Highway.

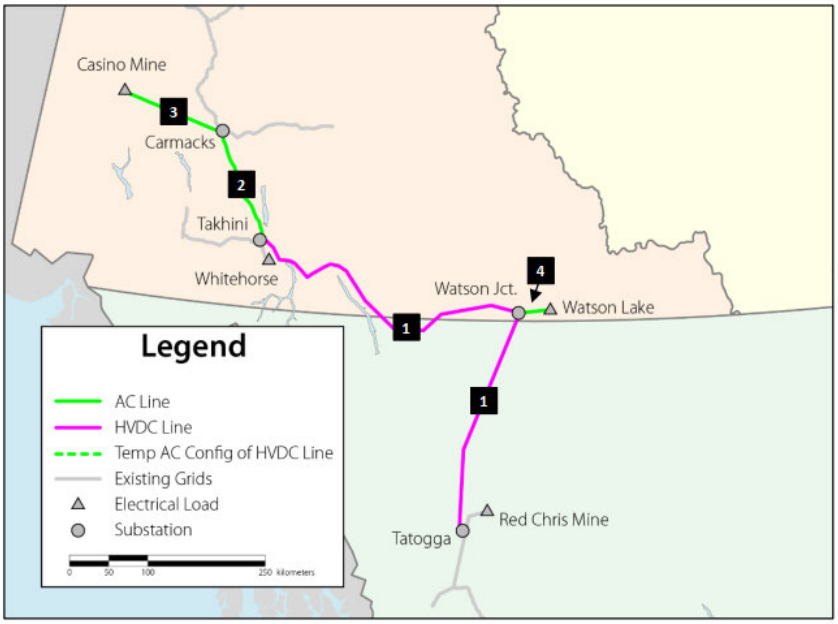

Figure 1 Map of the Proposed YT-BC Interconnection Project

- Work on the feasibility of the grid connect project will require the completion of a new development plan with updated costing and renewed delineation of project drivers and objectives.
- At the March 31, 2023, Yukon Forum meeting in Haines Junction, leadership discussed the potential for the connection of the Yukon and British Columbia grids. This discussion represents the beginning of the Government of Yukon's collaboration on the project.

SCENARIO NOTE

NRCan-EMR Deputy Ministers Introductory Meeting

Sustainable Development Regional Land Use Planning

Energy, Mines and Resources

LOGISTICS

Phone call with

Michael Vandergrift, Deputy Minister, Natural Resources Canada

10am – 10:15 am August 9, 2023

WHAT TO EXPECT

This meeting is an opportunity to meet and build a relationship with federal colleague Michael Vandergrift, Deputy Minister, Natural Resources Canada.

Expect to focus on areas of shared interest, synergistic opportunities for collaboration, and initial exploration of topics which have been challenging to advance.

This conversation will lay the ground-work for continued Federal/Provincial/Territorial (FPT) collaboration as well as direct bilateral conversations.

OBJECTIVES

- Highlight topics important to the Yukon
- Identify opportunities for collaboration
- Commence initial exploration 'messy' topics, particularly financial support to advance our priorities

RESPECTIVE PRIORITIES & CONTEXT FOR DISCUSSION TOPICS

Energy Mines and Resources

EMR is responsible for managing natural resource development in the Yukon in a sustainable and collaborative way for the benefit of Yukoners now and in the future.

Department Plan 2022-2025 Outcomes:

1. The Yukon's resources are responsibly managed for current and future generations.
2. Yukoners have low-carbon options to support emissions reductions and enhance the green economy.

3. The Yukon develops resilient, sustainable infrastructure.
4. The Yukon makes public land available to Yukoners and plans for sustainable natural resource use.
5. The Department of EMR advances its mandate through constructive relationships with other departments, governments, and stakeholders.

Natural Resources Canada (NRCan)

A science-based department, Natural Resources Canada develops policies and programs that enhance the contribution of natural resources sector to the economy, improve the quality of life for all Canadians and conduct innovative science in facilities across Canada to generate ideas and transfer technologies. The Department also represents Canada at the international level to meet the country's global commitments related to the sustainable development of natural resources.

Departmental Plan 2023-24 Core Responsibilities and Planned Results:

1. Natural resource science and risk mitigation
   Lead foundational science and share expertise for managing Canada's natural resources, reducing the impacts of climate change and mitigating risks from natural disasters and explosives
   - Canadians have access to cutting-edge research to inform decisions on the management of natural resource.
   - Communities and officials have the tools to safeguard Canadians from natural hazards and explosives.
   - Communities and industries are adapting to climate change.
2. Innovative and sustainable natural resources development
   Lead the transformation to a low-carbon economy by improving the environmental performance of Canada's natural resource sectors through innovation and sustainable development and use.
   - Natural resource sectors are innovative.
   - Clean technologies and energy efficiencies enhance economic performance.
   - Canada's natural resources are sustainable.

3. Globally competitive natural resource sectors
   Advance and promote market access, inclusiveness and competitiveness for Canada's natural resource sectors, in support of jobs and economic growth. Also includes statutory payments for offshore petroleum.
   - Access to new and priority markets for Canada's natural resource is enhanced.
   - Canadians are engaged in the future of the new and inclusive resource economy.
   - Enhanced competitiveness of Canada's natural resource sectors.

OPENING REMARKS

- It is a pleasure to be joining you remotely from the traditional territories of the Kwanlin Dun First Nation and Ta'an Kwäch'än Council.
- I am pleased to be meeting you to establish a relationship to continue our long history of effective federal-territorial collaboration.
- Our respective governments and departments have many areas of shared interest, which I look forward to advancing with you.

YUKON TOPIC 1 – SUSTAINABLE DEVELOPMENT

Objectives and What to expect

- Opportunity to present the Yukon's perspective and priorities pertaining to sustainable development
- Opportunity to raise topic of needed federal financial support
- Expect to hear federal support for priorities, with openness to continue discussions on financial support

Speaking points

- Sustainable development is a key aspect of the Yukon meeting our energy and climate change commitments as set out in *Our Clean Future: A Yukon strategy for climate change, energy and a green economy*.

- 67(3)(a), 74(1)(a) [redacted]
- Population growth, the electrification of key greenhouse gas emitting sectors (transportation and heating) and activities driven by the emerging importance of critical minerals are anticipated to increase demand for renewable electricity in the Yukon by 150 megawatts beyond what is planned for in Yukon Energy's current 10-year Renewable Electricity Plan.
- Renewable energy infrastructure projects such as the Atlin Hydro Expansion Project are key to meeting the Yukon's short- and long-term renewable energy and climate change goals.
- Large infrastructure projects in the North also rely on significant cost-sharing with industrial electricity customers and the federal government.
- 67(3)(a), 74(1)(a) [redacted]

Additional Speaking Points, if required:

Atlin Hydro Project

- *To meet the Yukon's renewable electricity targets and projected electricity needs, we are investing in more electricity generation capacity, which includes wind, solar and hydroelectricity projects.*
- *The Atlin Hydro Expansion Project, with financial contributions from the federal government, BC government and our government, is planned to generate 8.75 MW of reliable renewable electricity capacity during the winter months, and 42 GWh/year of long-term average renewable hydro energy if operated throughout the year.*
- *This would support meeting our renewable electricity commitments as well as support the Yukon in achieving 45 per cent greenhouse gas emissions reductions by 2030.*

Yukon-BC Grid Connect Project

- *The Yukon – British Columbia Grid Connect Project is another key contributor to the Yukon meeting and maintaining a high standard of 97 per cent renewable electricity on our electrical grid over the long term.*

- *Connecting the Yukon to British Columbia's electrical grid is a tremendous opportunity for shared growth and prosperity, economic reconciliation and a reduction in greenhouse gas emissions from fossil fuel use.*

Mining Intensity Target

- *To ensure that the mining sector plays a part in reducing emissions, we have committed to and are working towards establishing an intensity-based mining emissions target.*
- *An intensity-based approach encourages mine operators to innovate and adopt low-carbon practices and accounts for progress made to reduce greenhouse gas emissions even when substantial year-to-year fluctuations occur.*
- *Introducing an emissions intensity target will be the first of its kind in Canada, demonstrating the Yukon's leadership when it comes to the domestic production of minerals and metals within Canada's mining industry.*

Critical Minerals

- *Mining plays a central role in the transition to a green economy. Minerals are vital to low carbon technologies – from batteries to wind turbines, solar panels and electric vehicles.*
- *Over the coming years, the Yukon's mining sector will play a critical role in Canada's transition to a green economy by supplying critical minerals essential for clean energy.*
- *Federal funding to support electricity capacity projects, such as the Atlin Hydro and the Yukon-British Columbia Grid Connect, benefits mining companies in developing the Yukon's critical mineral resources while meeting greenhouse gas emissions targets.*

Background

- The *Clean Energy Act* came into force in November 2022, and legislates the following targets:
  - greenhouse gas emissions reduction target of 45 per cent by 2030 compared to 2010 levels (not including mining emissions);
  - greenhouse gas emissions target of net-zero for all sectors by 2050;
  - Yukon-wide 50 per cent renewable heating target by 2030;
  - zero-emission vehicle sales target of at least 10 per cent by 2025 and at least 30 per cent by 2030;
  - the authority to develop sector-specific targets into regulation; and,

- reporting requirements on the government's climate actions.

- Currently, about 90 per cent of the Yukon's electricity is obtained from renewable energy sources, with hydroelectricity accounting for approximately 80 per cent of the Yukon's total electricity generation.
- For rural and remote communities that are not connected to the main electrical grid, the Government of Yukon has committed to reducing diesel use for electricity generation by 30 per cent by 2030, compared to 2010.
- Our Clean Future: A Yukon strategy for climate change, energy and a green economy sets ambitious goals for increasing our renewable energy resources. Expanding existing resources and securing new reliable, renewable energy sources are essential for the successful implementation of Our Clean Future.
- Critical minerals supplies worldwide are vulnerable to disruption due to geopolitical events. Canada can be a sustainable source of strategic critical minerals for partners. There is significant potential for the Yukon to contribute to the Canada-US Joint Action Plan on Critical Minerals.
- The Yukon has primary deposits for eight critical minerals: copper (electricity), zinc (anode in material batteries), tungsten (strengthening metals), nickel (metal coatings), cobalt (EV batteries), platinum group metals (catalytic agents), molybdenum (alloy steel), and tin (protective metal coatings).

YUKON TOPIC 2 – REGIONAL LAND USE PLANNING

Objectives and What to expect

- Opportunity to present Yukon's perspective and priorities pertaining to regional land use planning
- Opportunity to raise topic of needed federal financial support
- Expect to hear federal support for priorities, with openness to continue discussions on financial support

Speaking points

- The signing of the Umbrella Final Agreement, and the subsequent land-claims settlements, introduced in Chapter 11, specifies how regional land planning is completed in the Yukon.

Plans must be approved the Government of Yukon and affected Yukon First Nations as it applies to their respective land.

- Without land use plans, there is no mechanism in place to minimize land use conflicts, recognize and promote the values and knowledge of Yukon First Nations, promote sustainable development or ensure future generations can enjoy the land.
- We continue to advance regional land use planning in collaboration with Yukon First Nations, communities and stakeholders.
- Regional land use planning in Yukon is integral to fulfilling the Government of Yukon's commitment under Chapter 11 of the Umbrella Final Agreement.
- There are high expectations that, within the next five years, the Government of Yukon will undertake and complete multiple/concurrent regional land use planning processes.
- Stable and ongoing funding for Chapter 11 processes continues to be a concern for Yukon First Nations.
- There are concerns on how conformity checks are performed. The Yukon Land Use Planning Council have not agreed to complete conformity checks beyond 2023/24 or for plans in other regions.

Background

- Under Chapter 11 of the Umbrella Final Agreement, independent Regional Land Use Planning Commissions work to create regional land use plans. These commissions are nominated by affected Yukon First Nations and the Government of Yukon.
- Currently, the Government of Yukon and Tr'ondëk Hwëch'in First Nation are working toward a decision to accept, reject or modify the recommended Dawson Regional Land Use Plan. Public engagement on the Recommended Plan concluded on December 20, 2022. A What We Heard report was released June 2023.
- Initial discussions are underway with the First Nation of Na-Cho Nyäk Dun, Kluane First Nation, Teslin Tlingit Council and Carcross Tagish First Nation for regional land use planning in their traditional territories.

- The 2024 Umbrella Final Agreement implementation funding review is underway between Canada, Council of Yukon First Nations and the Government of Yukon (Executive Council Office, Aboriginal Relations). This review looks at funding for Commissions and a review of all boards and committees under the Umbrella Final Agreement, including Yukon Land Use Planning Council.

CLOSING REMARKS

- Thank you so much for this opportunity to have a conversation. I appreciate you taking the time to schedule for us to commence these important discussions.
- I look forward to continuing collaboration with you to advance our many shared interests.

BACKGROUND

PROFESSIONAL BIOGRAPHY – MICHAEL VANDERGRIFT

Education

Master of Science, Social Policy and Planning, London School of Economics
Bachelor of Arts, Political Science, University of Alberta

Professional Experience

Effective July 24, 2023

Deputy Minister, Natural Resources Canada

Since June 2023
Deputy Secretary to the Cabinet (Plans and Consultations), Privy Council Office

2022 - 2023
Deputy Minister of Intergovernmental Affairs and concurrently Deputy Secretary to the Cabinet (Plans and Consultations), Privy Council Office

2021 - 2022
Deputy Minister of Intergovernmental Affairs, Privy Council Office

2017 - 2021
Associate Deputy Minister of Public Services and Procurement

2015 - 2017
Assistant Secretary, International Affairs, Security and Justice Sector, Treasury Board of Canada Secretariat

2014 - 2015
Assistant Secretary, Regulatory Affairs, Treasury Board of Canada Secretariat

2010 - 2014
Director of Operations, Priorities and Planning, Privy Council Office

2007 - 2010
Director General, Policy, Planning and International Affairs Directorate, Health Canada

2006 - 2007
Director, Health Care System Division, Health Canada

2003 - 2006
Director, Health Sciences Policy Division, Health Canada

Information Note

Head of Scottish Government Office in Canada – Diplomatic Visit

Energy, Mines and Resources

Overview

- Minister Streicker is scheduled to meet with the Ottawa-based Scottish delegation at 10:00 a.m. on Monday, March 27, 2023.
- According to the delegation, this is the first official Scottish Government visit to the Yukon.
- The Scottish delegation may be interested in promoting Scotland's climate ambition as it stems from COP26, specifically, identifying areas for collaboration focusing on energy transition, biodiversity, green agriculture, the Arctic and people.
- This meeting will include an opportunity to discuss matters of shared interest, including:
    1. Clean energy
    2. Climate change
    3. Green agriculture

Meeting Attendees:

- Government of Yukon:
    - Hon. John Streicker, Minister of Energy, Mines and Resources
- Members of the Scottish delegation:
    - John Devine, Head of the Scottish Government Office in Canada
    - Kerry Dickson, Deputy Head, and
    - Sabryna Lemieux, Scottish Affairs Officer

Information Note

Head of Scottish Government Office in Canada – Diplomatic Visit

Energy, Mines and Resources

Issue/Topic

- Renewable energy is a key aspect of mitigating against climate change impacts. The Yukon's northern remote geography poses unique challenges to accomplishing our renewable energy objectives. The Yukon's electrical grid is not connected to another jurisdiction and the grid faces high demand for electricity at peak times during the winter.
- Remote communities in the Yukon are traditionally reliant on fossil fuels.
- Supporting our agriculture industry in transitioning towards renewable energy sources is important for achieving our climate change goals and growth in local food production.

Key Messages

- Our Clean Future, the Yukon's climate change, clean energy and green economy strategy contains a comprehensive suite of actions to guide the Yukon in tackling the climate crisis.
- The recently passed *Clean Energy Act* legislates a greenhouse gas emissions reduction target of 45 per cent by 2030 and net-zero emissions by 2050 onwards.
- We are working to legislate a 93 per cent renewable electricity requirement for our main grid.

- Significant population growth, seasonal energy demand and the electrification of transportation and heating all contribute to increased energy demand in the Yukon.
- We are working with Yukon First Nation governments to meet our renewable energy goals through solar, hydro, geothermal and biomass projects.
- Our Independent Power Production Policy enables First Nations and entrepreneurs to build renewable electricity generation systems and sell locally generated power to the grid.
- A notable example of the success of the Independent Power Production policy is the Vuntut Gwitchin Government's solar farm in the remote northern community of Old Crow. This project offsets nearly 200,000 litres of diesel for power generation on an annual basis.
- Under our Micro-generation program, 12 First Nations have installed 31 renewable electricity systems on institutional, commercial and residential buildings throughout the Yukon.
- Geothermal resources have the potential to reduce our greenhouse gas emissions and reliance on fossil fuels as a renewable energy source.
- We are collaborating with Liard First Nation, Kluane First Nation and Teslin Tlingit Council to conduct geothermal research activities in their traditional territories.

- To reduce greenhouse gas emissions from homes and buildings, we are incentivizing retrofits in buildings, assisting in updates to biomass-heating systems in five First Nations facilities, and installing biomass-heating systems in two government facilities.
- We are working with our agriculture sector to increase the supply of locally grown food and reduce our dependence on southern imports.
- The Government of Yukon continues its partnership with the Government of Canada through the Sustainable Canadian Agricultural Partnership to support the agricultural sector in mitigating climate change risks and adapting green technologies.

Background

Renewable Energy Goals

- Renewable energy supply is a critical pathway to achieving the Yukon's legislated greenhouse gas emissions reductions of 45 per cent by 2030 and net-zero by 2050 onwards.
- While aspiring to achieve 97 per cent renewable electricity in the Yukon, the Government of Yukon is working to legislate a minimum of 93 per cent renewable generation on an average annual basis for the main electrical grid.
- Achieving a 93 per cent renewable average comprises approximately one quarter of the greenhouse gas emissions reductions needed to meet our goal of reducing emissions by 45 per cent by 2030.

Renewable Energy Generation

- The Yukon Energy Corporation's 10-year Renewable Electricity Plan provides a roadmap for how we will continue to meet electricity demands through renewable sources.

- Hydroelectric power is a significant source of clean energy generation in the Yukon. Solar and wind generation resources are an increasing share of renewable energy generation.
- There are hydroelectric electric dams in Whitehorse along the Yukon River, and at Aishihik Lake and Mayo Lake.
- The Yukon Energy Corporation and Tlingit Homeland Energy LP are advancing the Atlin Hydro Expansion Project in northern British Columbia. This is a major infrastructural renewable electricity generation project and supports reconciliation with the Taku River Tlingit Transboundary First Nation.
- The Government of Yukon is looking at developing the Moon Lake Pumped Storage Project to use surplus energy to transport water to an uphill reservoir to support renewable energy generation and offset fossil fuel use at times when demand is high.
- The Government of Yukon is looking at geothermal as a renewable energy source for heating and electricity. Geological research is underway to determine viable options for supplementing Yukon's heating and energy demand.

Renewable Energy Generation Programs

- The Government of Yukon has a suite of energy generation programs and energy efficiency programs in place to address energy supply and demand in the Yukon.
- Renewable energy programs such as the Independent Power Production policy and Micro-Generation programs source renewable electricity from First Nations governments, entrepreneurs and the public to help meet the gap between supply and demand.
- The Independent Power Production policy has enabled First Nation governments and development corporations enter into the green economy and significantly offset fossil fuel use in diesel-dependent communities.
- Of the 10 proponents that have signed Energy Purchase Agreements under the Independent Power Production policy, five of those proponents are First Nation governments or development corporations.

BC Grid Connection

- To support our long-term goal of net zero, the Government of Yukon is working towards connecting the Yukon grid to British Columbia. Early stages of this work involve engaging with the Government of British Columbia, First Nations and Transboundary Indigenous Groups.
- This BC Grid Connect Project is anticipated to be a 10 to 15-year project. Short and medium-term projects such as Atlin Hydro and Moon Lake remain vital to the Yukon's growth and transition from fossil fuels.

Green Agriculture

- The Sustainable Canadian Agricultural Partnership is an investment in the Yukon's agriculture industry to support our farmers and increase our ability to be self-sufficient in food production.
- This investment supports the agriculture sector in adapting to climate change and reducing greenhouse gas emissions.
- Since 2018, the program has supported nearly 500 diverse agriculture projects across the Yukon - from community gardens and markets, to building farm infrastructure, purchasing specialized equipment, developing farm business plans and supporting farm labour.

Approved by:

Deputy Minister
Department of Energy, Mines and Resources

23/3/24
Date approved

Session Briefing Note

Spring 2023

Atlin Hydro Expansion Project

Yukon Development Corporation

Recommended response:

- Supporting the implementation of the Atlin Hydro Expansion Project is a priority for Yukon government and a key component of Yukon Energy's 10-Year Renewable Electricity Plan.
- To date, our government has committed $50 million to the construction of the Atlin Project.
- This Indigenous-owned project is expected to deliver 34 gigawatt hours of clean winter power each year and displace our need to rent four diesel generators.
- Increasing dependable capacity on our main electrical grid by 8.75 megawatts, the Atlin Project will reduce greenhouse gas emissions while ensuring rates remain low for Yukoners.
- With shovels expected in the ground this spring, the project is anticipated to be online in the fall of 2025.

Additional response:

- While the Atlin Project has received significant grant funding, inflation and supply chain disruptions have increased costs, resulting in a funding gap.
- Yukon Development Corporation is working with the project proponent, Tlingit Homeland Energy Limited Partnership and the governments of Canada and British Columbia to help ensure the project moves forward.

- We understand that the Proponent has built in some contingency in the new grant funding ask to account for further price increases and an interest rate increase on their Canada Infrastructure Bank loan.
- Through this project, our government has the opportunity to advance economic reconciliation with both the Taku River Tlingit and Carcross/Tagish First Nations.

Context—this may be an issue because:

- The Atlin project was referenced in YDC's mandate letter and Yukon Energy's 10-Year Renewable Electricity Plan.
- The funding gap received a lot of attention in the media and from the Opposition during the fall 2022 legislative session.

Background:

Project Funding and Commissioning Date

- The total project cost is estimated to be up to $360 million, which includes a $20 million contingency for price increases when contractor and supplier quotes are refreshed and $30 million to account for up to a 2 per cent interest rate increase in their Canada Infrastructure Bank loan.
- Current notional and secured grant and loan break down is:
  - Government of Canada: $101.1 million (grant)
  - Government of Yukon: $50 million (grant)
  - Government of British Columbia: $20 million (grant)
  - Canada Infrastructure Bank: $80 million (loan)
- While the funding stack was completed for this project in the summer of 2022, due to inflation, delays and other cost increases, the funding gap is estimated at up to $106

million. This takes into account potential cost increases when the supplier and contractor quotes are refreshed.
- The current project schedule indicates the commissioning date is October 2025. This assumes the funding stack will be completed by March 2023. Should there remain a funding gap at that time, the commissioning date would slip at least another year to October 2026 or beyond.

Technical Specifications

- The Atlin Project is expected to add 8.75 megawatts of dependable capacity to the Yukon's main grid, primarily in winter (September – May) when peak electrical demand occurs.
- The project will eliminate the need for four rental diesels and generate about 34 gigawatt hours of electricity each year. It is also expected to reduce greenhouse gas emissions by an estimated 27,500 tonnes per year.
- The Proponent (THELP) plans to expand the existing Atlin hydro facility by leveraging the water storage capability of Surprise Lake and connect to the Yukon grid with a 69 kV transmission line from the power plant in Atlin, BC to Jakes Corner in the Yukon. The line will follow the Atlin Highway right-of-way for the majority of the route.

Environmental Review Processes

- The project is reviewable under the BC Clean Energy Project Development Plan process. The process is ongoing and permits are expected to be issued by May 2023.
- The Project does not trigger review under the *BC Environmental Assessment Act* (BCEAA) or the *Impact Assessment Act* (IAA).
- The YESAB permitting process is ongoing. YG is concluding its consultation with C/TFN and will issue a Decision Document shortly thereafter. Canada is undertaking Crown Consultation prior to issuing its Decision Document.

Electricity Purchase Agreement

- Yukon Energy has signed an Electricity Purchase Agreement (EPA) with THELP.

- The project does not fall under the Independent Power Producer (IPP) Policy; however, the EPA was reviewed by the Yukon Utilities Board (YUB). In its review, the YUB concluded that the project was necessary for Yukon government to meet its climate change goals.

Benefits of the Project

- Reduction of nine million liters of diesel per year for electrical generation in the Yukon.
- Reduction of greenhouse gas emissions in the Yukon by 27,500 tonnes per year.
- Creation of 176 full-time employment positions during the construction phase of the project, and another six to eight positions for operations and maintenance over the project life span.
- As part of the 2021 Confidence and Supply Agreement, Yukon government committed to increase its greenhouse gas emission reduction target from 30 per cent to 45 per cent by 2030 (as compared to 2010 emissions).
    - While the Atlin project will displace the need for additional diesel units under current load, several other major projects and initiatives will need to be realized in the coming years to meet this new target, including the Moon Lake Pump Storage project.
- The Project will have real benefits for TRTFN and C/TFN citizens and is a meaningful step towards economic reconciliation.

Approved by:

_____

February 28, 2023

President, Yukon Development Corporation — Date approved