

**STANDING COMMITTEE ON INDIGENOUS  
AND NORTHERN AFFAIRS:  
NORTHERN INFRASTRUCTURE PROJECTS  
& STRATEGIES**

*PRESENTED BY: CURTIS SHAW, PRESIDENT*

*NORTHWESTEL INC.*

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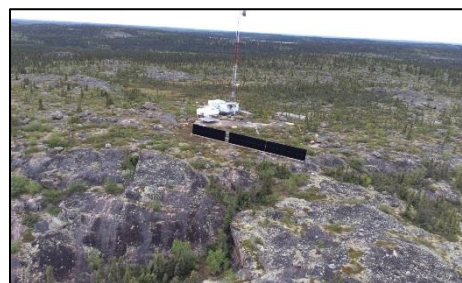
**Northwestel Inc.**

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## **NORTHWESTEL OVERVIEW**

Northwestel appreciates the opportunity to speak to you as part of your study on northern infrastructure projects and strategies. We are hopeful this will result in initiatives that continue to improve the quality of life and economic prosperity for residents of Canada's North.

Northwestel is the incumbent telecommunications service provider for northern Canada, serving 120,000 Canadians in 96 communities throughout the Yukon, Northwest Territories, Nunavut and Northern British Columbia. Our operating area represents 40% of Canada's total land mass and 0.4% of its population. For context, 70% of our communities have less than 500 people.

We maintain approximately 5000 km of fibre optic cable and 8000 km of microwave radio, and we operate in some of Canada's harshest and most remote locations.

Our corporate and operations headquarters are in Whitehorse and Yellowknife. We have a regional office in Iqaluit and provide local employment in more than 50 northern communities. We are one of the largest, continuous private sector employers in the North, with over 500 employees living and working there. Unlike many companies operating in northern Canada, our senior leadership, our operations and our satellite teleport equipment are north of 60.

Approximately 12% of our workforce self-identify as Indigenous, and we have 8 joint ventures with Indigenous businesses and institutions.

Northwestel a significant economic contributor. Our annual direct economic impact is \$169.5 million/year through salaries, operations and capital investment. Cumulatively, we have invested more than \$800M in telecommunications infrastructure across the North. Northern and Indigenous suppliers are significant beneficiaries of this.

Further, Northwestel invests around \$600,000 annually in support of events, youth, sport, arts, Indigenous culture and health care, particularly mental health initiatives.

## **TELECOMMUNICATIONS IN CANADA'S ARCTIC**

Northerners deserve fast, reliable, cost-comparative telecommunications - and we strive to meet those objectives in a world where standards and expectations are growing at an unparalleled speed. We are proud of our efforts to modernize northern telecommunications, and proud to partner with Federal, Territorial and Indigenous governments on bold, nation-building infrastructure investments across Canada's north.

These partnership agreements and joint ventures occurred to meet the needs and capacity of our communities and are strong alternatives to traditional P3 models, which are not well suited to northern projects given our small population and limited capacity.

Yukon was the first jurisdiction in Canada to provide high speed internet access in every community and by the end of 2019 we will have successfully brought broadband Internet reliable access to our whole operating-area except one community - Bob Quinn, BC, a community with less than 10 households.

Northerners benefit most when the private sector partners with government to access funding envelopes dedicated to northern and rural telecommunications infrastructure. This has been, and continues to be, essential in addressing the unique challenges of Canada's North – specifically its remote locations, high operating costs, high costs of living, limited access, small population base and limited human and financial resources. This is especially true for small fly-in communities. By working in partnership with various governments, we have managed to make real progress towards providing comparable Internet services at comparable rates across the North as those offered in Southern Canada.

One success is our modernization plan, a \$230M investment between 2013 and 2018. All 60 terrestrial-served communities now have smart phone capabilities and broadband download speeds of between 15 and 250 Mbps. We also provisioned 14 satellite-served communities with smart phone capabilities and broadband speeds ranging from 2.5 to 5 Mbps.

More recently, with the support of ISED's Connect to Innovate program, our Tamarmik Nunaliit project will provision all 25 Nunavut communities with 15 Mbps broadband and smart phone capabilities by the end of 2019.

The Mackenzie Valley Fibre Link is another recent private-public collaboration. In 2017, the Government of the Northwest Territories, Northwestel and Leducor provisioned almost 1200 km of fibre between McGill Lake and Inuvik. This investment brought higher speed Internet at lower prices to the Valley, and facilitates improved government programs, services and economic development opportunities.

Infrastructure development in the remote North is not only exponentially more expensive, it has none of the efficiencies or economies of scale available to service providers in the South. Tamarmik Nunaliit, is a \$120M shared investment – \$50M from Canada and \$70M from Northwestel – bringing improved services to 38,000 Nunavummiut. The Mackenzie Valley Fibre Link is an \$84M investment bringing improved services to 7000 customers. Through these initiatives, the lives of northern Canadians incrementally step towards parity with their southern neighbours. But they could not happen without federal and territorial investments that appreciate and respond to the uniqueness of doing business in the north.

## **FEDERAL INFRASTRUCTURE FUNDING**

As the Government of Canada looks north and identifies investment priorities, it should focus on projects that demonstrate public benefit and leverage investment by, and opportunities for, the private sector. When developing public policy and program funding models, please consider the precarious nature many northern businesses face given high input costs, increased global

competition and limited growth opportunities. Public funding for initiatives that instigates direct competition with the private sector creates instability and discourages private investment.

Financial support for infrastructure with broad public benefit, that spurs economic growth, makes doing business more affordable and supports a high quality of life for all Northerners should be a priority. Investments in connectivity are important – but so are investments in transportation and power generation. These have tremendous impact on our cost of doing business – and the cost of service provision to customers. The size, scope and cost of these initiatives, given Canada’s vast distances and low population density, make a pure business case difficult to justify.

But the benefit to business can be significant. Lower input costs encourage greater investment and more competitive products for consumers. This can be seen in our Tamarmik Nunaliit project in Nunavut – government investment in infrastructure resulted in up to 50% direct cost savings for consumers.

Dedicated funds for the North that recognize the unique characteristics and high costs of operating here and avoid undercutting existing private sector investments are the only way we will close the infrastructure gap that currently exists.

#### Transportation

Transportation and travel costs are one of the most significant inputs to Northwestel’s operations. We service 96 communities which are spread across nearly 40% of Canada’s land mass. In the most extreme case, Grise Fiord, Nunavut, is 1500 km from the nearest hospital in Iqaluit and 400 km to the nearest community (Resolute). Distance increases the costs to serve these communities; a lack of transportation options is also a significant cost input for any company operating in the North. Forty-three of our 96 communities do not have year-round road access. Of these, 30 have no road access at all. For a business, this means that equipment and supplies must be flown in or brought in by ocean barge in the case of the eastern & northern Arctic. Further, limited commercial flights into and out of remote communities often means air charters are required for both routine and emergency repairs, substantially increasing the cost of construction and maintenance. In real terms, this means that a technician may need to book a \$20,000 charter flight to fix a single residential customer’s phone line or modem.

#### Power Generation

Electricity is another significant cost input. Our commercial power costs in the North are significantly higher than the rest of Canada – 15 times higher than in equivalent consumption bands in Quebec. In Nunavut, commercial rates can be as high as \$1.11/kWh. Moreover, rates in Nunavut are expected to go up with rates in Iqaluit increasing until they are equal to rates in other communities. While commercial power rates in the Northwest Territories and Yukon are lower than in Nunavut, they are nearly double the national average and climbing at a higher rate than inflation. As electricity is a key input cost to broadband service delivery, continued rate increases place upward pressure on residential and business rates.

In addition to commercial power, our network’s remote locations require us to generate our own power at 81 sites as no commercial power is available. Thirty-six of those are accessed by helicopter-

only, and fueling these sites requires diesel to be transported by helicopter. Repair and maintenance trips are also very costly.

### Telecommunications

For telecommunications, in many remote communities, including much of Canada's remote North, it is not reasonable that the CRTC service objective of 50 Mbps download and 10 Mbps upload will occur naturally given the low population density and the high cost of operating telecommunication networks in these regions. The cost to provision Internet service both on the access side within the local community as well as on the backbone transport make this exceedingly difficult to achieve.

Improving broadband is not as simple as laying more fibre, increasing competition or forcing prices lower, improving connectivity in Canada's remote north will require collaborative solutions that encompass the complexity of the region. Distance, geographic challenges, high input costs and low populations densities make it challenging to find a business case where telecommunications service providers can recover their investments. This challenging business case is made significantly more adverse by structural mechanisms that drive market conditions. An example is the requirement to provide wholesale access. Different from most southern jurisdictions, there is simply not enough revenue from local services to support one service provider let alone two or more in most communities and forced competition or facilities access directly impacts private sector investment.

Achieving CRTC's aspirational targets will require large, public-private partnerships. Fibre to the home, 5G, long-haul terrestrial fibre, and long-haul subsea fibre, for example between Nuuk Greenland and Iqaluit; or through investments in technology, such as low earth orbit satellites in the coming years.

Government programs also need to consider redundancy concerns in remote and rural regions of Canada. Businesses and consumers rely on the Internet 24/7 and any service outage can have significant health, safety, social and economic implications.

### **SUMMARY**

Closing the infrastructure gap between Canada's Arctic and the south will require hundreds of millions of dollars in infrastructure development and strong collaboration between all levels of government, Indigenous organizations and the private sector. This is the only way Canada will meet its economic and social potential.

As one of Canada's largest, permanent, private sector employers, we know firsthand how the infrastructure gap impacts the cost of doing business and our ability to be competitive. To shrink this gap and support the social and economic development in the north, we recommend that you:

- a) Allocate specific funds that address the northern infrastructure gap, that recognize the unique characteristics of operating there and high costs of infrastructure development in the North.

b) When considering major infrastructure investments, consider the broad potential benefits of that initiative both today and into the future. Frequently, public funds are allocated based on the business case for a single project outcome – a road, a hydro dam, a line of fibre – when in fact most nation-building initiatives support multiple social and economic benefits and, if considered in their entirety with potential partners (for example building a road, hydro lines and fibre concurrently), could include efficiencies and cost-savings and prepare Canada for tomorrow.

c) If Northern Canada is to be fully engaged in the digital economy with reliable data and Internet services comparable to the South, public broadband programs must set aside funds specifically to address build infrastructure and address redundancy concerns in remote and rural regions of Canada.

d) The Government should abandon the obligation for subsidy recipients in Canada's remote North to offer Wholesale Access and instead promote affordability through retail price commitments.

We appreciate the opportunity to speak with you today and we are hopeful this will result in initiatives that continue to improve the health, wellness and economic prosperity in Canada's remote North.

We would be pleased to answer any question you have.