



Session 1

Sustainable Infrastructure Development

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September 9, 2014

Canada's North

Northern Advantages

- 40% of Canada's land mass and the Arctic Ocean
 - Approximately 1/3 the size of Europe.
- Settled land claims
- Young and growing population
- Tremendous potential in natural resource development
- Fastest growing GDP in Canada



Northern Challenges

- Cost of doing business
- Skills shortages
- Small, isolated communities with housing limitations
- Infrastructure gaps

The Infrastructure Gap

Most of the North lags behind in terms of core infrastructure in key areas: marine ports, runways, roads, bridges, telecommunications, housing, energy, water and waste treatment facilities.

Transportation

- Supplies, including food, building materials, equipment, machinery and energy, must be brought in from outside the North.

Connectivity

- Broadband communication continues to lag behind the rest of Canada in terms of bandwidth, redundancy and speed.

Energy

- Scarcity in reasonably priced energy resulting in a significant overhead cost for business, government and home operations.

Community Infrastructure

- Lack of adequate waste management and water treatment infrastructure can lead to adverse human health and environmental conditions.

Housing

- Shortage of adequate housing can lead to overcrowding and substandard houses.

Challenges to Infrastructure Development

Costs

- Relatively expensive to develop and maintain in the North
- Harsh weather and short construction seasons
- Remoteness and seasonality to bring supplies
- Limited availability of local capacity and resources

Impacts

- Creates significant challenges for:
 - socio-economic growth and development,
 - resource development and access to markets,
 - emergency management and safety of Northerners,
 - development of sustainable and resilient northern communities.

Balance

- Small population (approximately 113,000 across the North) spread out with many choice challenges.
- Limited tax bases to draw from
- Economies of scale challenge

The Opportunities

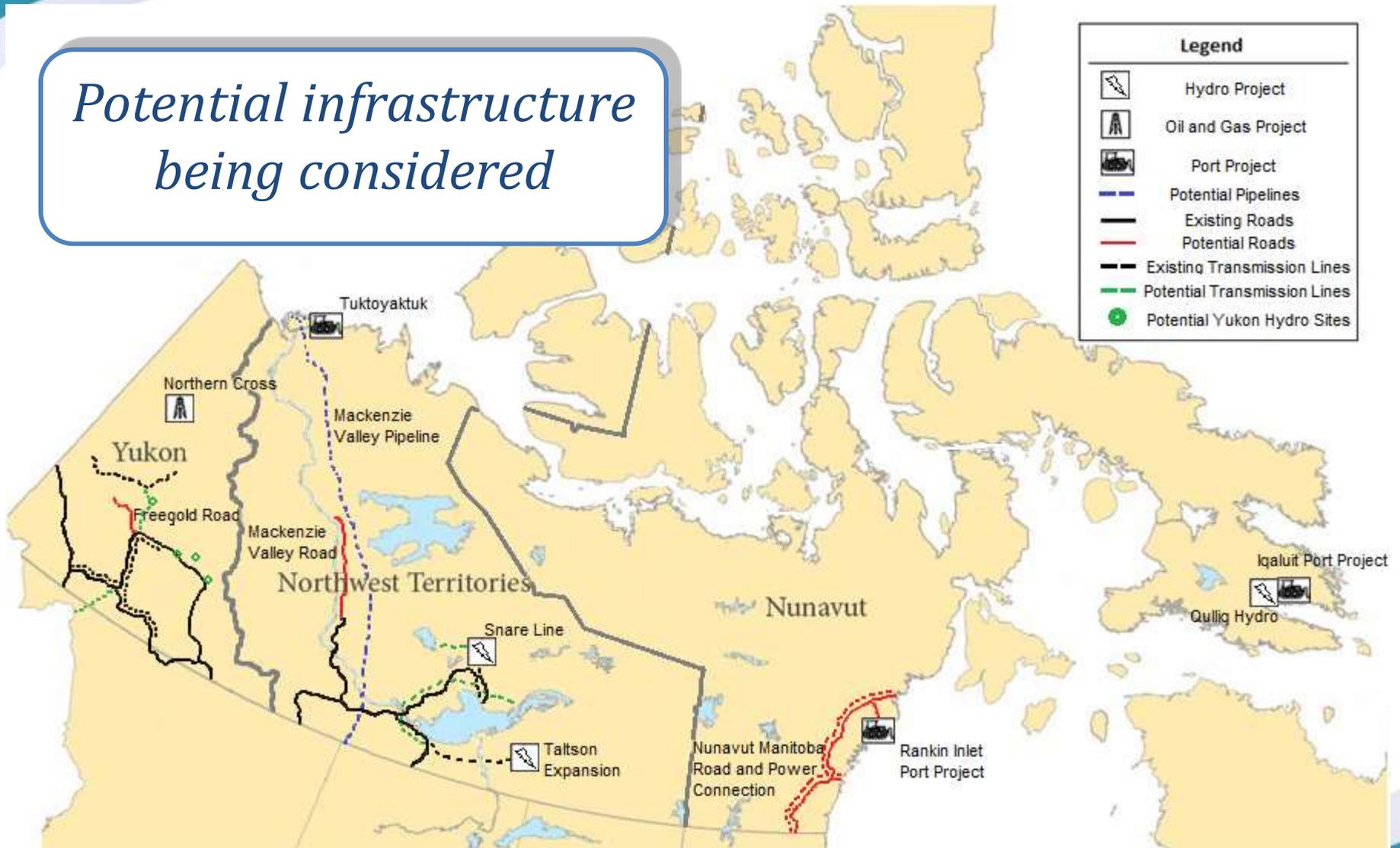
Infrastructure is the North's lifeline

- Infrastructure has been recognized by the Association of Consulting Engineering Companies and the Conference Board of Canada, among others, as key to unlocking resource development and economic potential of the North
- Key infrastructure for northern economic development:
 - Telecommunications / Broadband
 - Transportation Networks
 - Traditional and Alternative Energy
 - Water and Waste Infrastructure



Inuvik-Tuktoyaktuk Highway Project

Potential infrastructure being considered

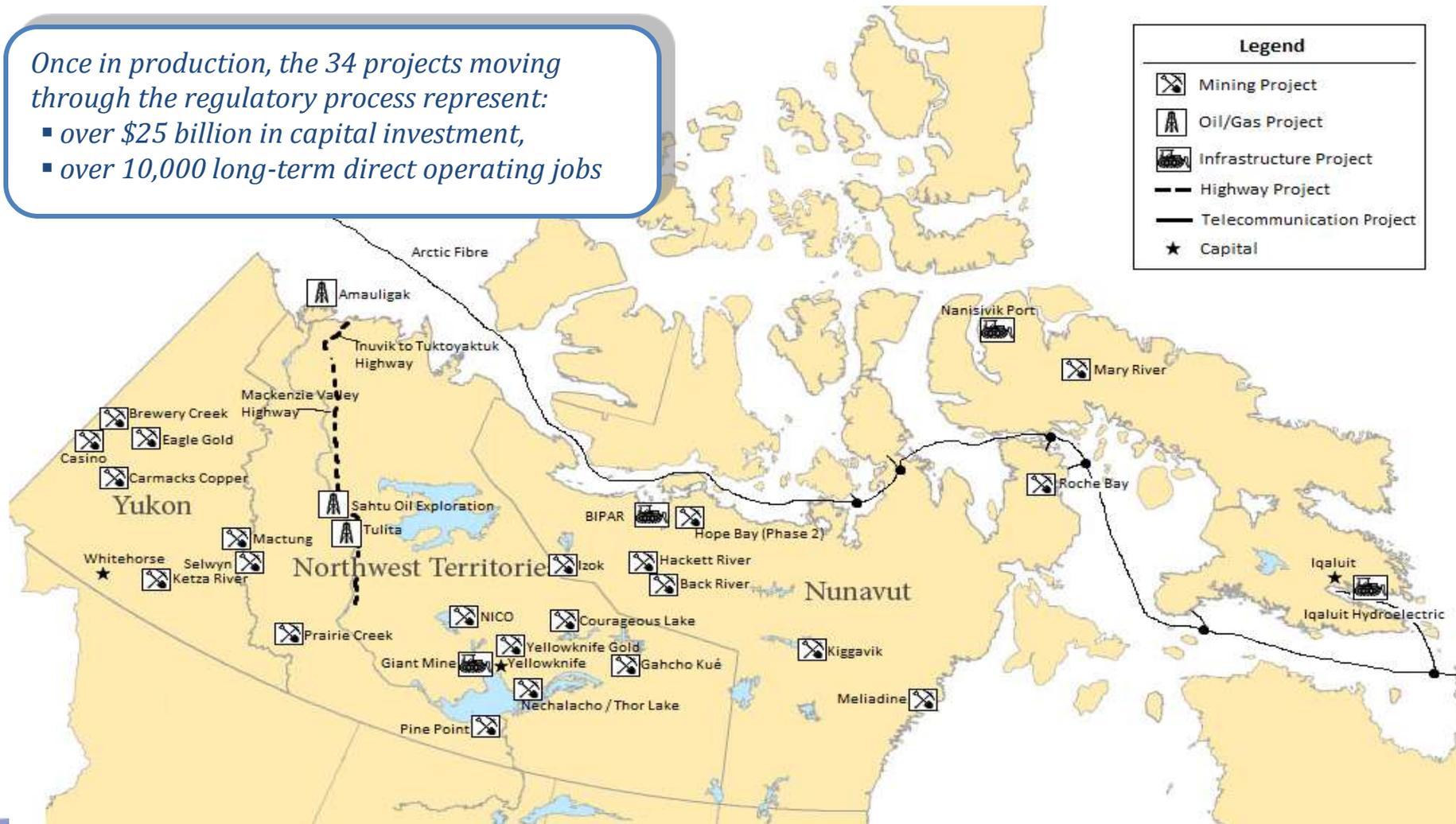




Major Projects in Various Regulatory Phases

Once in production, the 34 projects moving through the regulatory process represent:

- over \$25 billion in capital investment,
- over 10,000 long-term direct operating jobs





New Building Canada Fund

- \$14-billion fund to support infrastructure projects of national, regional and local significance that promote economic growth, job creation and productivity
- 2 components: \$4 billion National Infrastructure Component (NIC); \$10 billion Provincial-Territorial Infrastructure Component (PTIC)...\$256M over 10 years/territory + gas tax \$78M over 5 years

P3 Canada

- \$1.25 billion fund to build infrastructure projects through public-private partnerships
- Funding may not exceed 25 percent of the project's direct construction costs
- Programming that supports Aboriginal ownership of resource development infrastructure.

Government of Canada Tools

National Research Council Arctic Program

- Investment of \$17 million over eight years. Seeking \$65 million in co-investments from industry and other public and private sector partners.
- Four main priority areas: resource development; northern transportation and shipping; marine safety technologies; and community infrastructure.

Arctic Council

- Creation of the Arctic Economic Council – an independent organization to facilitate Arctic business-to-business activities and responsible economic development
- One of the four theme areas: encouraging public-private partnerships for infrastructure investments

Complemented by CanNor funding feasibility studies and its Northern Projects Management Office supporting resource and infrastructure development.

Partnerships and Alignment

With the needs and gaps, and the costs of building sustainable long term infrastructure, working together is the best path forward.

Territorial Governments

- Territories are challenged in balancing trade-offs between investing in backbone infrastructure for communities (e.g. roads, airports, community facilities, and water and waste management) versus supporting legacy energy or transportation projects that could attract more private investment.
- Aligning infrastructure planning activities to leverage economies of scale

Industry

The public-private nexus

- Dual community and proponent use during the life of the projects?
- Dual proponent and use by other companies (exploration or development) during life of project?
- Potential use by community during and/or post project (e.g. alternative approaches to decommissioning)?
- Potential use by others for resource development post project?
- Potential use for other public services (e.g. search and rescue, defense, navigation)?

Aboriginal Organizations

- Creating the conditions to support Aboriginal ownership of infrastructure (adjustments to existing program parameters)
- Increasing role being played by Aboriginal organizations' development corporations or trusts, e.g.:
 - Nunasi Corporation (owned by Inuit Tapiriit Kanatami) has shares and businesses in: transportation, manufacturing, bulk fuel storage and supply, logistics and expediting, digital communications, and construction.
 - Inuvialuit Development Corporation, which owns Canadian North, a major regional airline.