Transitioning to a Low Carbon Economy

Presentation to the Standing Senate Committee on Energy, the Environment and Natural Resources

NORTHWEST TERRITORIES HOUSING CORPORATION

March 1, 2018
Northwest Territories Context

• 45,000 people in 33 communities spread across 1.3 million square kilometers face many social, environmental, and economic challenges

• Compared to the South, considerably higher construction costs – NWT - $285 to $420 per sq. foot; Edmonton - $115-$150 per sq. foot.

• Aging infrastructure:
  o Over 50% of public housing units over 30 years of age, of which 25% over 40 years
  o Older units have poor energy performance and increased operating costs
Northwest Territories Context (Cont.)

• Nearly half of communities do not have all-weather road access. This isolation has considerable effects on housing, both in the public and private markets.

• These rural and remote communities have a predominantly Indigenous population that has a deep connection to their home communities and traditional activities.
Northwest Territories Context (Cont.)

• For 2017-18, GNWT investing approximately 8% of total expenditures in housing.
  o National average of 1% of expenditures for governments.
• More than half of NWT communities have core housing need of more than 30%
• Need for further research (e.g. technology solutions - alternative energy, insulation)
Building Challenges

- Transportation logistics
- Cold climate – short building season
- Workforce capacity
- Cost of materials
- High maintenance costs
- Soil erosion from climate change
About the NWT Housing Corporation

• Mandate to ensure access to a sufficient supply of adequate, affordable and suitable houses that meet the needs of NWT residents

• Owns, operates and maintains over 2,600 housing units (1 out of 6 units in NWT)

• Committed to energy-efficient building practices and exploring alternative energy sources

• All new houses meet or exceed EnerGuide for Homes (EGH) rating of 80, which is a high-efficiency standard

• Ongoing capital investment on projects involving energy-efficient components and upgrades ($6.3 million in 2017-18).
Social Housing Transformation

• Replacement of aging Public Housing – multi-unit complexes versus single family dwelling

• Energy-efficiency upgrades
  ○ Solar panels, biomass, district heating, minimum EnerGuide 80 standard, building envelope, solar hot water, and LED lighting

• Greater tenant responsibility for consumption - Phasing out electricity subsidies

• Responsive Asset Tracking
  ○ Unit-by-unit utility consumption monitoring
Support for Private Homeowners

• Major repair program
  o Forgivable loan towards major repair work including structural, foundational, or mechanical issues.

• Seniors Aging-in-Place
  o Support homeowners who are seniors to remain in their homes and their communities by providing a financial support for energy-efficient upgrades or to make their homes more durable
Energy Project Partnerships

Federal

• Northern Sustainable House

• Photovoltaic for 17-Plex in Inuvik, Fort Liard Seniors 9-Plex, Whati Seniors 9-Plex

• Research projects, e.g. determine most cost-effective and impactful energy upgrades
Energy Project Partnerships (Cont.)

Indigenous and Community Governments

• Community Housing Support Initiative (supporting new energy efficient housing projects initiated by Indigenous and Community governments)

Other Organizations (e.g. Arctic Energy Alliance)

• Energy Audits and Consulting Services
• Energy building plan assessments
Net Zero Energy Ready Code

• Proposed net zero code by 2030
• Represents significant upfront costs for the NWT
• Limited heating and power options (e.g. diesel is the only cost effective / viable heating fuel in the majority of NWT communities)
• May result in social housing program reductions without partnership from the federal government
Recommendations

1. That the federal government develop energy partnership opportunities that would support the transition to a low carbon economy for rural and remote Indigenous communities.

2. That federal agencies, which may include Natural Resources Canada Mortgage and Housing Corporation, and Polar Knowledge Canada, support research into the cost-implications and feasibility of applying a Net Zero Energy Ready Code to rural and remote Indigenous communities.