

Alaska Wind Conference 2023

Anchorage, AK

Renewable Energy in Remote Arctic Communities: The Nunavut Experience

September 2023

Heather Shilton
Director, NNC



ᓄᓇᑭᓃ ᓄᓂᑭᓂᓴᑦᑎᓃᓃ ᓄᓇᑭᓂᓴᑦ
Nunavut Nukkiksautiit Corporation





Political Context & Background

NNC Corporate Overview

- Nunavut Nukkiqsautiit Corporation (NNC) is a wholly-owned subsidiary of Qikiqtaaluk Corporation, the Regional Inuit Development Corporation for the Qikiqtani Region of Nunavut
- Nunavut's first 100% Inuit owned renewable energy developer
- All projects are owned through a regional-community ownership model
- Technology-agnostic and works closely with communities to select technologies best aligning with their priorities
- 35+ MW of renewable energy projects under development





Political Context & Background

Nunavut Overview

- Nunavut is Canada's newest Territory, established in 1993 with the formalization of the Nunavut Land Claims Agreement
- The NLCA is the largest Indigenous land claim settlement in Canadian history
- In 1999, Nunavut was established with an independent public government – the Government of Nunavut
- Nunavut Tunngavik Inc. (NTI) ensures the federal and Territorial governments fulfill their obligations under the NLCA
- ~85% of the population of Nunavut is Inuit
- 4 official languages in Nunavut (Inuktitut, Innuinaqtun, English, French)



Photo Credit: Government of Nunavut



ᓄᓇᓂᓪ ᓄᓇᓂᓪ ᓄᓇᓂᓪ ᓄᓇᓂᓪ
Nunavut Nukiksautiit Corporation

Political Context & Background

Qikiqtani Region

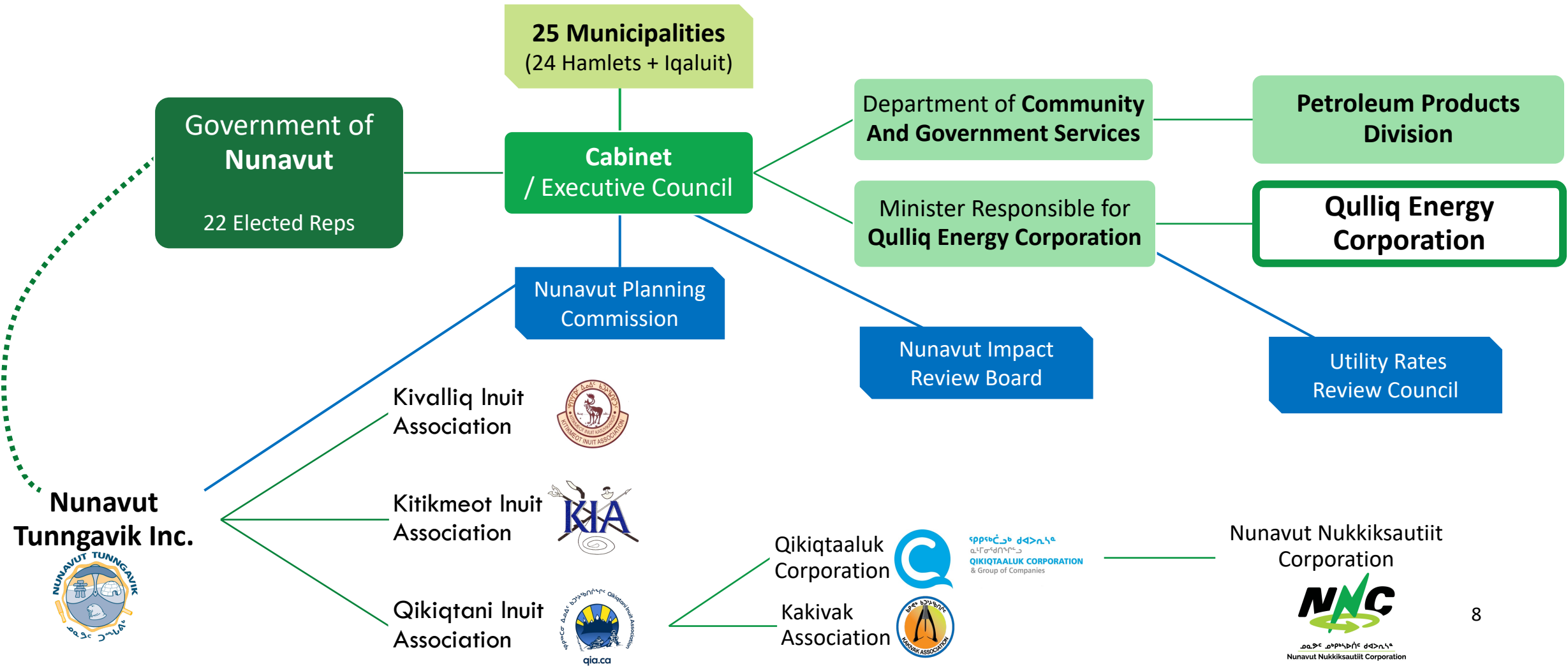


- Qikiqtani Region encompasses eastern Nunavut
- 13 communities
 - Smallest Community: Grise Fiord (pop. 130)
 - Largest Community: Iqaluit (pop. 8000)
- 8 of 13 communities are north of Arctic Circle
- Over 15,000 Inuit in the Qikiqtani Region
- Qikiqtani Region covers 10% of Canada's land mass

Photo Credit: Qikiqtani Inuit Association

Political Context & Background

Inuit Organizational Structure



Nunavut Energy Landscape Overview

- 100% of electricity in Nunavut is generated from diesel fuel
- Heavy reliance on imported fuels from Southern companies – not sustainable
- Territory is inaccessible by road and therefore all goods are either flown in or brought in by ship in summer months
- Reliability of electricity systems is key due to remoteness of communities
- One utility in the Territory: Qulliq Energy Corporation (QEC)
 - QEC generates, distributes, and sells electricity in the Territory, while also being responsible for energy policy in Nunavut
 - A Utility Rates Review Council (URRC) provides recommendations for improvements in energy policy, though their recommendations are not required to be incorporated by the utility
- QEC is publicly owned by the Government of Nunavut and is exempt from Carbon Tax

Nunavut Energy Landscape

Energy Funding

Canada's Arctic Energy Fund: a step in the right direction

By NUNAVUT PREMIER PETER TAPTUNA MAY 17, 2017

Nunavut needs energy security, and then it can move towards more sustainable alternatives to diesel fuel.



A man on an all-terrain vehicle in Arviat, Nunavut. Most of the electricity in Nunavut comes from diesel generators. Photograph by Sybillic Klenzendorf

Arctic Energy Fund

- \$175M fund from Infrastructure Canada to Government of Nunavut for “communities to upgrade existing fossil fuel based energy systems or to supplement or replace these systems with renewable energy options” (Infrastructure Canada)
- Administered by the Department of Community and Government Services
- Currently 100% of AEF funds go to utility – no money is set aside for Inuit or community recipients, despite being eligible as an “Ultimate Recipient” under the fund
- All AEF funds are currently used to subsidize construction of new diesel power plants in Nunavut.

Total Annual Fossil Fuels Subsidies (2012-2018)

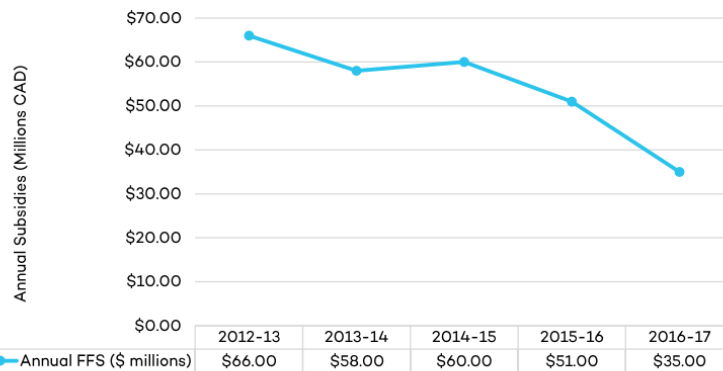


Figure 2. Annual Cost of fossil fuel subsidies

Photo Credit: WWF

Electricity (diesel) Subsidization

- Many different departments participate in electricity subsidization
 - ❖ Dept. of Finance
 - ❖ Dept. of Family Services
 - ❖ Nunavut Housing Corporation, etc.
- Difficult to quantify. Estimated to be in the \$60-90M range annually
- Because of this, we're now comparing subsidized diesel to unsubsidized renewables



SO WHAT CHANGED?

A photograph of a wind farm on a hillside, with several wind turbines visible against a dark sky. The image is overlaid with a semi-transparent dark green filter. A horizontal green line is positioned below the title text.

NNC TIMELINE

NNC Timeline

Year 2: Building the Queue

- Advancement of Major Projects
- Grow Network & Establish Company Identity
- New Development Partners
- Secure Funding/Launch Major Projects
- Focus on Policy Advocacy
- Develop Resourcing Strategy



NNC Timeline

Year 3: Building the Team

- Hire New Staff (focus on community hires)
- Continue Advancement of Major Projects
- Acquisition of Funding to support Investing in Team/Capacity Building
- Work with New Staff to develop Training Programs for new Future Staff
- Increasing Policy Advocacy



NNC Timeline

Year 4: Building the Assets

- Construction Start on Major Projects
- Enter Detailed Design on Major Projects
- Expand Core Team with New Hires
- Develop and Implement Inuit Capacity Building Strategy for Company
- Relationship Building with Regulators + Utility



NNC Timeline

What's Next?

- Lots of Construction!
- Shifting to O&M Focus
- Continued Capacity Building/Training Efforts
- Policy Advocacy
- Building upon new relationship with Utility





CONCLUSION

Conclusion

- **No one-size-fits-all solution to reducing the energy infrastructure gap in remote Arctic communities**
 - Different priorities = different solutions
 - Policies/funding need to be flexible to reflect this reality
- **Invest in people**
 - Hiring locally
 - Develop training programs
 - Youth focused educational experiences
- **Community rights must be upheld in every stage of resource development**



QUJANNAMIK NAKURMIK THANK YOU

Heather Shilton
Director, NNC
hshilton@qcorp.ca



ᓄᓇᑭᓃ ᓄᓂᑭᓂᓴᑦᑎᓃ ᑯᓴᑦᑎᓴᓂ
Nunavut Nukkiksautiit Corporation