

Recommendations to improve the CIPP and forthcoming utility-scale IPP policy

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- For:** The Honourable P.J. Akeeagok, Premier and Minister responsible for the Utility Rates and Review Council
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- Re:** Regarding: CIPP and utility-scale IPP policies to reduce diesel dependence and attract Inuit-owned clean energy projects

Context

Congratulations on your recent election to the Government of Nunavut. We wish you success as you represent and serve Nunavummiut for the betterment of the Territory. Your stated and demonstrated support for clean development in the Nunavut, such as the establishment of Tallurutiup Imanga National Marine Conservation Area, is extremely encouraging as new directions and mandates for the Government of Nunavut are established. This Briefing Note is intended to provide helpful information and background for new Ministers overseeing the climate and energy policies to support clean energy in Nunavut.

More specifically, our area of focus is the continued development of a robust and fair utility-scale Independent Power Producer (IPP) policy to increase the uptake of renewable energy in Nunavut. The IPP policy that is planned for release this spring is an opportunity to apply lessons learned from the existing Commercial and Institutional Power Producer (CIPP) policy, where poor policy design and unattractive terms and conditions have resulted in a lack of uptake. Improving the design of the IPP policy is critical to meeting the energy needs of Nunavut's growing population while tackling climate change.

Issue

The Government of Nunavut (GN) plays a key role in accelerating the transition from diesel to alternative energy sources and creating opportunities for Nunavut to participate in the clean energy transition that is taking place across Canada. Nunavut is dependent on diesel for

heating and electricity. Improving energy efficiency, reducing the amount of energy consumed in housing and thus improving living conditions and the healthiness of homes, and advancing large renewable energy systems are all significant, untapped, economic and social opportunities for Inuit businesses and all Nunavummiut. The current CIPP and forthcoming utility-scale IPP programs must be improved to match the speed and scale needed for this transition and reduce the barriers to market entry for Inuit communities and businesses while meeting Qulliq Energy Corporation’s (QEC) mandate “to respond to a range of energy use and conservation issues within Nunavut, including alternative energy sources.”¹

Summary

- Nunavut is starting to see the deployment of clean energy projects and important programs and initiatives. Strong climate and energy policies can support and accelerate this positive momentum.
- Delivery of the new CIPP and IPP policies in Nunavut has been slow, resulting in the delay of several renewable energy projects. The situation creates uncertainty for Inuit businesses, communities and developers interested in advancing projects. Current CIPP and IPP policy direction is not aligned with supporting Inuit leadership.
- The main obstacles to reducing diesel dependence in Nunavut through an increase in alternative energy systems are the high capital costs for systems and equipment and unattractive economic conditions associated with developing clean energy projects in northern remote communities. Highly subsidised diesel energy prices are a key factor in contributing to the difficulty in presenting alternative energy systems as economically viable.
- QEC needs to offer higher power purchase agreement (PPA) rates and more favourable PPA terms in order to encourage development and improve the market conditions for renewable energy systems.
- PPA rates need to include the actual avoided cost of diesel instead of the much lower rates published to date by QEC.
- The Governments of Nunavut and Canada need to work together to find innovative ways of financially supporting this transition through strong policies and programs intended to reduce and even eliminate dependence on diesel power.

¹ Qulliq Energy Corporation, “President and Chief Executive Officer.” <https://www.qec.nu.ca/president-and-chief-executive-officer>

Background

Diesel dependence in Nunavut

- With its remoteness and vast distances between communities, Nunavut has a unique energy landscape. It is 99% dependent on diesel for meeting its electricity and heating energy needs, the highest diesel dependency of all territories and provinces.²
- Continued diesel reliance contributes to climate change, local air quality issues, and land and water impacts from diesel spills, with negative health impacts.

The economic challenges of the clean energy transition

- Economic opportunities within the Territory can be limited. The public sector accounts for more than 30% of Nunavut's GDP.³ This high share is not only because of the high cost of providing public services in the far north, but also because the private sector is quite small. Increasing local renewable energy and economic development activities within the Territory would lead to an increase in private sector revenue, employment and jobs, greater energy self-sufficiency and more stable energy security.
- QEC's *Alternative Energy Options* report published in December 2020 states that the main challenges for Nunavut to transition from diesel to renewable and alternative energy sources are the reliability of intermittent sources and the large capital costs associated with the transition. Significant financial resources are needed to build alternative energy facilities and projects that the QEC and GN cannot afford to develop on their own.
- Energy prices are subsidized in Nunavut through the Department of Finance and the Nunavut Housing Corporation; electricity generation from diesel is not profitable in the Territory under current subsidy and regulatory structures.

Government of Nunavut and QEC policies

- QEC's mandate is to reduce diesel energy usage and transition to renewable energy in Nunavut while providing safe, reliable and affordable electricity.
- The *Qulliq Energy Corporation Act* was amended in 2018 to allow electricity in Nunavut to be generated by IPPs and sold to QEC under a PPA.

² Dave Lovekin et al., *Diesel Reduction Progress in Remote Communities: Research Summary* (Pembina Institute, 2020). <https://www.pembina.org/pub/diesel-reduction-progress-remote-communities>

³ Government of Nunavut, *Budget 2021-22*. https://gov.nu.ca/sites/default/files/2021-22_fei_en.pdf

- The GN’s 2007 Ikummatiit energy policy⁴ provided a vision of an energy system that is affordable, sustainable, reliable and environmentally responsible. This CIPP policy and upcoming IPP policy are components that could support the Ikummatiit energy policy.
- The GN’s 2016 Nunavummi Nangminiqatunik Ikajuuti policy⁵ requires its organizations to follow regulated procurement practices that prioritize Inuit ownership and Inuit employment. The CIPP policy and utility-scale IPP policy could offer similar prioritization to Nunavut Inuit.
- Well-designed energy policy has the potential to advance the renewable energy sector in Nunavut – creating jobs and revenue opportunities for Inuit organizations.
- The CIPP policy lacks favourable terms and the utility-scale IPP policy has experienced significant delays. These projects, located in Iqaluit, Arviat and Sanikiluaq, total 3.8 MW of renewable energy capacity and 500 kWh battery energy storage.

Considerations

- Inuit communities, businesses and clean energy champions have expressed that their main barrier to pursuing net-metering, CIPP, or IPP projects is the low PPA rate offered by QEC and unfavourable contract terms that negatively impact business opportunities.
- QEC has expressed the need for financial support from the Government of Canada to finance the transition from diesel to clean energy.
- Creating strong incentives for renewable energy and clean technology in Nunavut should be a priority for the federal government in meeting their 2030 goal to decarbonize the grid in remote communities and their 2035 goal of a net-zero electricity grid. The Government of Canada should proactively work with and support the GN to achieve these goals through programming, energy and policy support and deep collaboration.
- In order to create a strong business case to attract private sector investments, QEC must offer PPA rates that approach, at a minimum, what the Pembina Institute describes as the *marginal cost of diesel* (cost of fuel, generation, transportation, and taxes) and ideally the *avoided cost of diesel* (marginal costs plus operation and maintenance and financing costs).
- To date, there has been little transparency behind the methodology used to determine the PPA rates offered through the CIPP policy. CIPP and IPP policies may require some regulatory changes to enable a fairer PPA price and may require analysis of external

⁴ Government of Nunavut, *Ikummatiit: The Government of Nunavut Energy Strategy* (2007)
https://gov.nu.ca/sites/default/files/ikummatiit_energy_strategy_english.pdf

⁵ *Nunavummi Nangminiqatunik Ikajuuti (NNI Policy)* (2016).
<https://nni.gov.nu.ca/sites/nni.gov.nu.ca/files/English%20Policy%20for%20April%2001%202017.pdf>

costs outside of QEC and the incorporation of costs not currently considered within regulatory frameworks.

- The CIPP policy is an evolution of the GN's policy mandate to support energy sovereignty as a government priority; the new utility-scale IPP policy is an opportunity to leverage lessons learned from the current CIPP policy. Leadership can meet the challenge to eliminate barriers that stand in the way of renewable energy development and improve policies generated by QEC.

Successes to date

- The Kugluktuk Arena Net Metered project: 60 kW of solar PV was installed on the arena, enabling the Hamlet to reduce their operations costs and use the savings to maintain youth programming and protect jobs. Their solar project is easy to maintain, and is saving the Hamlet approximately \$70,000 in electricity costs annually.
- Despite unfavourable PPA pricing, both the Hamlets of Rankin Inlet and Baker Lake undertook CIPP projects over 100 kW each. Their projects were supported by federal capital funding programs. Improved Territorial CIPP and IPP policy design will ensure that renewable energy generation projects will be able to continue regardless of federal policies and programming in the future.
- Homeowners and Hamlets across Nunavut have taken advantage of the Net Metering program to help reduce their operating costs and protect the environment.
- The newly introduced Cabin and Homeowner Renewable Energy Grants from the Climate Change Secretariat and Nunavut Housing Corporation have generated a large amount of public interest. As expected, the cabin program has seen faster uptake, but projects developed with the Homeowner Grant are expected to catch up as applications make their way through the longer approval process.

Recommendations to improve CIPP and IPP policies

QEC and the GN should work closely together on the following changes to the CIPP policy and ensure these are incorporated into the upcoming utility-scale IPP policy:

1. **Learn from little uptake and adoption of the CIPP policy** – The CIPP policy has seen little uptake because it offers low PPA rates and unfavourable contract terms. QEC and the Government of Nunavut should address these shortfalls in the CIPP policy and ensure they are also addressed in the upcoming IPP policy.
2. **Promote Inuit ownership in renewable energy projects** – The CIPP policy currently does not mandate any aspect of Inuit-led projects or the creation of local jobs and employment. When reviewing applications, QEC should prioritize projects with at least 50% Inuit ownership. The upcoming IPP policy needs to ensure Article 24 of the Nunavut Agreement – promoting Inuit employment – is achieved.

3. **Develop a community-specific PPA price** – IPPs should be compensated at a varying rate depending on the variable energy costs in each community. If communities purchase electricity at different rates, then they should be able to sell the electricity they produce at different rates.
4. **Improve the business case for renewables in Nunavut by increasing the PPA rate** – PPA rates in both the CIPP and IPP policies should increase by at least a 50% from the current rate of \$0.25 per kWh, and more analysis should be completed on what constitutes better rates. A fairer PPA rate would reflect cost savings to QEC, the GN, and possibly the federal government including avoided operational and maintenance costs of diesel infrastructure. By offering better prices, QEC will attract investment, stimulate local economic development, and reduce GHG emissions by reducing diesel consumption.
5. **Commit to greater utility transparency** – Technical assessments, allowable renewable penetration rates, diesel infrastructure replacement timing, grid stability studies, financial constraints of QEC and analysis details behind PPA rate calculations should be more transparent and made accessible to the community and general public. There is awareness of an external study that analyzed the CIPP policy details and current rate (\$0.25/kWh) offered in the policy and the results of this study should be shared publicly.
6. **Develop more capital funding programs** – Complementary to this CIPP policy, the GN could offer rebates as incentives to support the capital investment necessary to develop these projects, building on recent successes of grants available through the Climate Change Secretariat to install renewable energy systems on cabins and homes.⁶
7. **Collaborate with the Government of Canada for parallel and supportive federal policies** – The GN should work with the Government of Canada to determine their role in supporting renewable energy development in Nunavut and also financing and attracting private sector investment in clean energy development. Federal policy tools and programs could be developed that can increase the PPA rate and overall revenue streams for Inuit businesses and communities to develop projects.

If you have any questions regarding the recommendations listed here, please feel free to reach out to any of our organizations. We welcome the opportunity to continue this conversation and to assist the clean energy transition in Nunavut.

⁶ Nunavut Climate Change Secretariat, “Renewable Energy Cabin Grant Program Guide.”
<https://climatechangenunavut.ca/en/renewable-energy-cabin-grant-program-guide>