

Independent Power Producer policy in Nunavut

Nunavut IODI champion and Pembina Institute feedback

Submitted to: Qulliq Energy Corporation | October 21, 2022

Regarding: Draft Independent Power Producer (IPP) policy

Contact:

Alex Ittimangnaq | Clean Energy Project Manager for the Hamlet of Kugaaruk | IODI Energy Champion

Dave Lovekin | Director, Renewables in Remote Communities | Pembina Institute

Background

Alex Ittimangnaq, Energy Champion and Clean Energy Project Manager for the Hamlet of Kugaaruk, and the Pembina Institute are submitting a response to Qulliq Energy Corporation (QEC)'s request for public feedback on the draft Independent Power Producer (IPP) policy. Alex Ittimangnaq is a Champion of the Indigenous Off-Diesel Initiative and leads energy initiatives in the Hamlet of Kugaaruk. This feedback was developed collectively and in consideration of the information shared from our trusted relationships with Inuit leaders and organizations in Nunavut that we have developed through Natural Resources Canada's Indigenous Off-Diesel Initiative. Pembina Institute's role as a co-delivery agent for the federal government's Indigenous Off-Diesel Initiative involves identifying and encouraging effective policies, programs and regulations that support remote Indigenous communities in developing renewable energy and diesel reduction projects. We hope you will consider our feedback in developing this policy.

The Pembina Institute continues to provide robust and fair IPP policy design critique and recommendations to increase the uptake of renewable energy in Nunavut. The Pembina Institute has provided five submissions since 2019 to the Government of Nunavut and QEC on the Commercial and Institutional Power Producer (CIPP) and IPP policies.

Meeting the future energy needs of Nunavut's growing population while also tackling climate change and the decarbonization of Nunavut's energy systems will require a well-designed IPP policy. This draft IPP policy is an opportunity to apply lessons learned from the existing CIPP policy, where poor policy design and unattractive terms and conditions have resulted in limited uptake of Inuit-owned renewable energy projects. The forthcoming IPP policy must match the speed and scale needed for the low-carbon energy transition and reduce the barriers to market entry for Inuit organizations while also meeting QEC's mandate "to respond to a range of

energy use and conservation issues within Nunavut, including alternative energy sources.”¹ The IPP policy should reflect a process that is fair and transparent and results in Power Purchase Agreements (PPAs) being developed mutually between Inuit and QEC. The IPP policy should also reflect the intent of the Nunavut Partnership Committee by promoting meaningful collaboration to advance shared priorities including Inuit prosperity.

Delivery of the IPP policy in Nunavut has been slow, resulting in the delay of several renewable energy projects across the territory. The situation has created uncertainty for Inuit businesses, communities and developers who are ready to advance projects. This forthcoming policy must create clarity and certainty in addition to prioritizing Inuit-led projects.

Feedback on Independent Power Producer Policy #9.01

Policy statement

- No comment.

Guiding principles

- No comment on these principles.
- However, the rest of the policy does not seem to reflect “working together for a common cause;” standardization and other requirements set out in the current policy (elaborated upon below) are not reflective of a fair and mutually beneficial process.

Application

- We are concerned with the requirements that “Independent Power Producers must have prior experience in operating and maintaining power generation facilities.” This will be a barrier to entry for Inuit proponents who have not yet had the opportunity to develop, operate and maintain power generation facilities.
- We would also like more detail about the statement “QEC will be responsible for capacity and electricity supply requirements.”

Definitions

- No comment.

Roles and responsibilities

- We are concerned with the IPP’s responsibility to “enter into a standardized Power Purchase Agreement with QEC” and QEC’s responsibility to “ensure [...] standardization when [...] establishing Power Purchase Agreements.” We strongly believe that IPPs should not be forced into standardized PPAs with QEC and instead should be allowed to

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

meaningfully participate in negotiations. PPA terms and conditions are situationally dependent on factors such as existing generation systems. Negotiation guidelines for PPA rates and other terms and conditions with project proponents should be developed to facilitate this process. In addition, there should be open dialogue and transparency from QEC when discussing terms and conditions of PPA contracts. This is aligned with intent of the Nunavut Partnership Committee by promoting meaningful collaboration to advance shared priorities including Inuit prosperity, the spirit of the Nunavut Agreement, and the right to economic self-determination.

- QEC’s list of responsibilities should also include “provid[ing] the public with annual, hourly energy demand data that could be used in assessing the viability of and need for proposed IPP projects in the territory” as per Yukon’s IPP policy² and should be extended to transparency on all information that may be necessary to develop IPP projects.
 - Accurate, detailed and transparent diesel consumption and energy consumption data for communities is critical to properly sizing and assessing renewable energy projects. QEC should establish detailed diesel and electricity consumption baselines for each community and make that information freely available to project proponents.
 - 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 proponents and the general public. In particular, the results of the external study that analyzed the CIPP rate (\$0.25/kWh) offered in the policy should be shared publicly.
- QEC’s responsibility to “reserve the right to disconnect an Independent Power Producer’s generating facility on reasonable grounds, including but not limited to safety, operation, maintenance, or reliability, as outlined in the Power Purchase Agreement” should be removed or reworded. The situations in which QEC can disconnect an Independent Power Producer should be explicit in the Power Purchase agreement itself and should only pertain to safety and reliability. In situations where QEC disconnects an IPP due to a fault or constraint of the utility, QEC should still pay the IPP its expected revenue based on historical or modelled demand; this commitment is a necessary assurance to secure project financing.

Provisions

1. Parameters of the IPP Program

² Government of Yukon, *Yukon’s Independent Power Production Policy* (2018).

<https://yukon.ca/sites/yukon.ca/files/emr/emr-yukon-independent-power-production-policy.pdf>

- a. Community Power
 - What does “substantial portion” of a community’s energy requirement refer to?
 - “Community power projects must be sized according to the electrical needs and the capacity size of the existing generation in the community.” This statement is vague and we view it as redundant. Any renewable energy project will need to be sized based on local needs and existing infrastructure.
- b. Call for Power
 - What do “large-scale IPP capacities” refer to?
 - We support the right of first refusal to municipalities, Inuit organizations and Inuit-owned companies on Calls for Power.
 - We support the proposed requirements for third parties outside of Nunavut looking to form partnerships with communities to develop renewable energy projects.

2. Eligibility Requirements

- Connection Impact Assessment (CIA) costs should be made transparent to the IPP. IPPs should have the right to be responsible for the CIA, with QEC reviewing and approving study results. The study could be provided by a third party (for example, the Northern Energy Innovation group at Yukon College) in order to foster trust and transparency between all stakeholders. If responsibility for undertaking the CIA does fall to QEC, QEC should provide proponents with reasonable timelines to undertake the study.
- Under certain circumstances the renewable capacity could exceed community load given specific conditions such as overbuilding/oversizing the generation system with proactive curtailment to smooth variability in intermittent renewable sources such as wind and solar, renewable energy plus storage projects, possible considerations for electrification (load growth), and the production of hydrogen. Project sizes should be dependent on what is optimal given project economics and/or diesel reduction while maintaining grid stability. As such, it does not make sense to place a cap on total renewable generation capacity.
- We disagree with the proposed rule that “[n]o new applications will be approved once the defined limit has been reached.” QEC should not set defined limits for renewable energy in each community. Achievable renewable penetration levels should be evaluated on a project-by-project basis and are dependent on the unique parameters of the local community electricity system such as existing generation sources and which renewable and storage technologies are implemented.

- The process of QEC performing penetration studies is redundant as Connection Impact Assessments will need to be determined regardless. Penetration studies have no tangible impact on project development other than prolonging timeframes as grid impacts are studied in the Connection Impact Assessment. If QEC does undertake penetration studies, these must account for potential energy storage integration.
3. Technical Interconnection Requirements (TIR)
 - No comment.
 4. Commercial Terms of Reference
 - While we support the inclusion of the particular areas of the PPA as outlined in the policy, we want to reiterate the importance of allowing proponents the opportunity to negotiate the terms and conditions of their PPA.
 5. Purchase Price of Renewable Energy
 - Rather than stating that the guaranteed minimum price will “enable proponents to secure financing,” we recommend that QEC communicate minimum purchase prices to provide IPPs with reasonable baseline economic outputs. Whether proponents are able to secure financing will depend on some of the specific terms and conditions in PPA contracts such as whether “take or pay” is considered.
 - The prices offered by QEC should be community-specific, not the territorial average of the avoided cost of diesel. Offering this territory-wide flat PPA rate based only on an average diesel energy cost will be a disadvantage to many renewable project proponents in areas where diesel fuel costs, and hence project development costs, are higher. This will likely lead to projects not being built in communities where diesel fuel costs are higher because the PPA price offered will be too low to justify project economics. The REINDEER program³ in Ontario, a HydroOne Remote Communities IPP-like policy, offers PPA rates specific to each remote community in northern Ontario because transportation costs vary so widely. These PPA rates range from \$0.235 per kWh to \$0.742 per kWh. Proponents should be compensated at a PPA rate specific to the variable diesel and energy costs in each community, with costs calculated in a transparent manner.
 - What is QEC’s definition of “avoided cost of diesel”? QEC must improve transparency around their costs of diesel and the calculations they do to inform the prices they offer in PPAs. To facilitate a strong business case for proponents,

³ HydroOne, “REINDEER Guidelines,” 2021.

<https://www.hydroone.com/abouthydroone/CorporateInformation/Documents/REINDEER-Guidelines.pdf>

we recommend that QEC offer PPA rates that approach, at a minimum, the “landed cost of fuel;” ideally PPA rates should also include avoided diesel operation, maintenance (O&M), and financing costs. PPA rates in the IPP policy should reflect a minimum 50% increase from the current rate of \$0.25 per kWh announced in the CIPP policy, and more analysis should be completed on what constitutes fair rates. A fairer PPA rate would reflect actual cost savings to QEC and the Government of Nunavut considering O&M and diesel subsidies.

- In many cases, tangible operation and maintenance savings and deferred capital replacement costs can be realized when a renewable energy project displaces a significant amount of diesel generation (i.e. if the generators are able to be turned off for significant periods of time, reducing engine overhaul frequency and overall lowering runtime) on a well-designed microgrid system. Offering a PPA rate for the avoided cost of energy should include direct diesel O&M savings and need not lead to additional costs for QEC or ratepayers.
- In leading jurisdictions such as the Yukon, PPA rates that are 10-20% higher than marginal cost have enabled more projects and achieved operational cost savings in the diesel system. A higher PPA rate can make a measurable difference in creating a favourable business case and revenue stream for a community-owned IPP.
- Any changes to IPP prices and the methodology followed when calculating rates should be clearly communicated with project proponents. Methodologies for calculating rates and determining rate increases or decreases over the contract lifetime should be developed with key stakeholders and rightsholders, and transparently communicated.

6. Other

- QEC states that any PPA rate offered through the IPP policy cannot be higher than the marginal cost of energy so that customer electricity rates do not increase. This is a misleading statement; it is not uncommon for electricity rates to increase. They do so when diesel fuel or operating costs by QEC go up, and increased electricity rates are applied to the URRC through a General Rate Application every four years. Stating that consumer electricity rates may not increase with the addition of renewables is an opinion position, rather than a regulatory restriction. We understand the sensitivity around increasing electricity rates and the need to ensure rates stay affordable, but stating rates are restricted from increasing is misleading. There are policy options to consider if there is risk to QEC that a higher PPA rate offered may increase the overall electricity rates in the territories.

- The conditions for de-rating (curtailment) of renewable energy generation should not be standardized and should be negotiated and agreed upon between the IPP and QEC in a dispatch protocol which provides instructions for how the diesel, renewables, battery, and load work together.

Prerogative of Executive Council

- No comment.

If you have any questions regarding our feedback, we would be happy to provide you with more information, policy examples, research and analysis backing our recommendations to show how a well-designed policy can advance Inuit-led renewable energy projects, creating jobs and economic opportunities for Inuit.