

October 6, 2020

Hon. Jeannie Ehaloak Minister Responsible for

the Qulliq Energy Corporation Legislative Assembly of Nunavut

P. O. Box 2410

Iqaluit, NU X0A 0H0

Dear Minister Ehaloak,

RE: The Application for Commercial and Institutional Power Producers Pricing Structure, Utility Rates Review Council of Nunavut’s Report 2020-04.

By letter dated May 11, 2020, the Qulliq Energy Corp (QEC) applied to the Minister responsible for approval of a pricing structure and rates regarding the purchase of electricity from commercial and institutional power producers (CIPP Application). By letter dated May 12, 2020 the Minister responsible for QEC requested advice from the Utility Rates Review Council (URRC) with respect to QEC's CIPP Application.

In response to the Application and the Minister’s request, please find attached the URRC’s Report 2020-04, respecting QEC’s CIPP Application.

Yours truly,



Anthony Rose

Chair, Utility Rates Review Council of Nunavut

CC: Premier Joe Savikataaq, Minister Responsible for URRC

William MacKay, Deputy Minister, Executive and Intergovernmental Affairs

Jamie Flaherty, Acting President, Qulliq Energy Corporation

Theresa Fox-Mansell, Acting Executive Director, URRC

P.O. BOX 1000, STN 200, IQALUIT, NU, X0A 0H0, [URRC@GOV.NU.CA](mailto:URRC@gov.nu.ca) [www.URRC.gov.nu.ca](http://www.urrc.gov.nu.ca/)



# Report to the Minister Responsible for the Qulliq Energy Corporation On:

**The Application for Commercial and Institutional Power Producers Pricing Structure**

**Report 2020-04**

# October 6, 2020

## UTILITY RATES REVIEW COUNCIL OF NUNAVUT

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Anthony Rose Chair

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Laurie-Anne White Executive Director

Theresa Fox-Mansell Acting Executive Director

Wade Vienneau Consultant

## LIST OF ABBREVIATIONS

|  |  |
| --- | --- |
| CCS | Department of Environment – Climate Change Secretariat, Government of Nunavut |
| CGS | Department of Community and Government Services, Government of Nunavut |
| CIPP | Commercial and Institutional Power Producer |
| ED&T | Economic Development and Transportation, Government of Nunavut |
| GHG | Greenhouse Gas |
| GLO | Government Liaison Officer |
| GN | Government of Nunavut |
| GRA | General Rate Application |
| IPP | Independent Power Producer |
| IR | Information Request |
| kWh | Kilowatt hour |
| MLA | Member of the Legislative Assembly of Nunavut |
| PPA | Power Purchase Agreement |
| PPD | Petroleum Products Division |
| QEC | Qulliq Energy Corporation |
| SAO | Senior Administrative Officer |
| TIR | Technical Interconnection Requirements |
| URRC | Utility Rates Review Council of Nunavut |
| URRC Act | *Utility Rates Review Council Act* |

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1. BACKGROUND
   * 1. Qulliq Energy Corporation (QEC), as a designated utility, is required pursuant to Section 12 (1) of the *Utility Rates Review Council Act* (URRC Act), to seek approval from the responsible Minister for QEC (Minister), prior to imposing a rate or tariff. The responsible Minister in turn is required pursuant to Section 12 (2) of the URRC Act, to seek the advice of the Utility Rates Review Council (URRC) on the utility’s request to impose a rate or tariff.
     2. By letter dated May 11, 2020, QEC applied (the Application) to the Minister responsible for QEC, requesting approval for a pricing structure and rates regarding the purchase of electricity from commercial and institutional power producers (CIPP). On May 12, 2020, the Minister requested advice from the URRC with respect to QEC’s Application. QEC subsequently clarified**[[1]](#footnote-1)** that its Application for the CIPP program did not include the imposition of a rate or tariff, and that the Minister responsible for QEC requested a URRC recommendation on how pricing will be established before considering the overall CIPP program application. QEC submitted that the request was made pursuant to section 7 (c) of the URRC Act.
     3. Section 7 (c) of the URRC Act states, among others, the purposes of the URRC are to advise the Minister responsible for the Qulliq Energy Corporation concerning any matter related to QEC that is referred to it by the responsible Minister on the advice of the Executive Council. Based on the clarification provided by QEC, the URRC is considering this matter under section 7 (c) of the URRC Act. The URRC’s consideration of the Application is set out in this Report.

1. PARTICULARS OF THE APPLICATION
   * 1. QEC applied for an instruction respecting an acceptable pricing structure and rates that regulate QEC regarding the purchase of electricity from CIPP customers. QEC submitted that it was developing a CIPP program that would allow existing CIPP customers to generate electricity using renewable energy systems and in turn sell the electricity to QEC.
     2. QEC stated that the CIPP program will not increase costs for customers, nor will it affect the reliability of service, as CIPP customers/suppliers will still be connected to QEC’s grid. Eligible CIPP customers/suppliers will be able to sell power to QEC based on each community’s energy requirements and capacity limits.
     3. QEC submitted that the CIPP program was anticipated to launch in 2020-2021 pending Cabinet approval.
     4. QEC stated that the CIPP program was based on its review of pricing option practices in other Canadian jurisdictions. Based on that review QEC submitted that it considered three pricing structure options. All three options were based on the avoided cost of diesel. The avoided cost of diesel will be based on pricing from years prior for QEC. The prior year data will be extracted in compliance with QEC’s accounting fiscal years, from April 1 to March 31.
     5. The three options included an initial rate for a CIPP proponent entering into a power purchase agreement (PPA), a guaranteed minimum rate for the life of the PPA, a mechanism and frequency for adjusting the power purchase price, and a 25-year term for the PPA. QEC provided some details about each of the three options.
     6. QEC recommended its third option, which included aspects of the other two options. As summarized by QEC:
        1. The initial rate for a CIPP could be calculated based on either annual data of the fiscal year preceding the date on which the PPA takes effect, or on the average annual data of the prior 3 years preceding the date on which the PPA takes effect, with approval of the rate to be recalculated through the URRC’s review and recommendation. QEC proposed that the review and recalculation would be done when it applied for a general rate application (GRA). QEC recommended the 3‑year average method.
        2. The initial rate will be considered the guaranteed minimum rate for the life of the PPA.
        3. The power purchase rate will be recalculated annually using either the previous year’s fuel prices or the previous 3-year average fuel prices, but only reviewed by the URRC pursuant to a GRA:

* The power purchase rate will be escalated for the current year at 50% of the annual increase of the avoided cost of diesel if the diesel price increased relative to the past year.
* The power purchase rate will be de-escalated for the current year at 100% of the annual or 3-year average decrease of the avoided cost of diesel if the diesel price decreased relative to the past annual or 3-year average. The rate will not decrease below the initial rate set in the PPA.
* The overall power purchase rate increases for the term of the agreement is capped at 20% of the initial rate offered in the PPA.
  + - 1. The PPA term will be 25 years.
      2. The current initial power purchase rate based on QEC’s recommendations is $0.2520 per kWh.
    1. QEC clarified aspects of its Application through its responses to the URRC’s information requests (IR). Some of the clarifications are noted, in part, in the Examination of the Application section of this Report. The details of all QEC information responses are not reflected in this Report.

1. PROCESS
   1. MAJOR OR MINOR APPLICATION
      1. Under the URRC Act, it is directed that at the sole discretion of the URRC, the URRC shall determine whether an application is either minor or major for purposes of determining the time required for processing of the application; a minor application provides for a time limit of 90 days for the URRC to report to the responsible Minister while a major application provides a time limit of 150 days. In view of the potential impacts on costs for customers and reliability of service, the proposed term of 25 years for the PPAs, and the stated need to integrate renewable energy systems into QEC’s grid to help decrease Nunavut’s dependency on diesel fuel, reduce carbon emissions and promote energy self-reliance as described in the subject Application, and considering the need for IRs and responses, and public submissions, the URRC determined to treat the Application as a major application.
   2. PUBLIC CONSULTATION PROCESS
      1. The URRC developed a process to inform its consideration of the Application, including an opportunity for three rounds of IRs to QEC (if needed), written public submissions (i.e. from customers and other interested parties), IRs regarding public submissions (if any), as well as an opportunity for QEC to respond to public submissions. The URRC provided notice of the Application through email, as well as social media, through the government liaison officers (GLOs) in each community, and by letter to each Member of the Legislative Assembly of Nunavut (MLA), all Mayors and Senior Administration Officers (SAO) and Assistant SAOs across Nunavut.
      2. The URRC provided an opportunity for the public to make written submissions respecting the Application by the deadline of July 15, 2020. Written submissions were received from the following interested parties by that date:

* Adam Arreak Lightstone – MLA Iqaluit-Manirajak;
* John Main – MLA Arviat North-Whale Cove;
* Department of Environment’s Climate Change Secretariat (CCS) – with additional comments from Department of Community and Government Services (CGS) Technical Services Division, Department of Economic Development and Transportation (ED&T);
* MCW Custom Energy Solutions Ltd.;
* Nihat Energy Ltd.;
* Nunavut Nukkiksautiit Corporation;
* Pembina Institute;
* Qikiqtaaluk Business Development Corporation;
* WWF-Canada.
  + 1. The URRC had no questions for the interested parties that made public submissions, and QEC did not respond directly to the public submissions. However the URRC included general questions to QEC in the third round of IRs about aspects of the public submissions. QEC provided responses to those questions. The responses received as a result of the public submissions were of assistance to the URRC.
    2. QEC responded to three rounds of IRs from the URRC with the final responses received on September 11, 2020.

1. PUBLIC SUBMISSIONS
   * 1. The URRC received submissions from members of the Nunavut government, Nunavut government departments, potential CIPP proponents, and non-governmental organizations.
     2. The URRC does not intend to repeat all of the diverse comments or feedback provided. However, the URRC has summarized some of the feedback in the list below, some of which were provided by more than one interested party. In no particular order, interested parties submitted the following comments and feedback:
        1. One CIPP purchase rate for all communities is not attractive, and does not reflect the differences in construction and operational costs across Nunavut.
        2. The proposed CIPP purchase price is not attractive enough to incent the development of new renewable energy systems in Nunavut. The expected payback for a renewable project under the proposed CIPP program could range from 20 years to 55 years or greater than 65 years. It was suggested that a payback period in the range of 20 to 30 years is closer to the expected life of the equipment.
        3. Under the proposed CIPP program, only projects with significant outside grant or incentive funding can be financially viable.
        4. The limit on CIPP purchase rate increases of 20% is not attractive.
        5. There is no direct greenhouse gas (GHG) reduction attributable to individual customers.
        6. The CIPP purchase price should include consideration of the cost of installation, operation, and maintenance of renewable generation, rather than the avoided cost of diesel.
        7. The CIPP purchase price adjustment mechanism is potentially risky for Nunavut and is not clear. It should also be more responsive (e.g. annual adjustments) instead of the 4 (or more) year GRA adjustment period proposed in the CIPP Application.
        8. Larger projects are more economically viable than smaller ones and should be considered for development by QEC.
        9. Direct comparison of the programs in other jurisdictions in Canada may not be applicable in Nunavut due to the differences in QEC’s service territory (e.g. grid connection, road connectivity, availability of other sources of power, etc.).
        10. The PPA term should reflect the expected life of the equipment being installed.
        11. A guaranteed minimum price in the PPA is essential, regardless of QEC’s actual cost of diesel.
        12. The guaranteed minimum price should not expose QEC to over paying for CIPP supply.
        13. The CIPP purchase price should extend beyond the avoided cost of diesel, and include other avoided QEC fixed and variable costs, avoided Government of Nunavut (GN) costs [e.g. Petroleum Products Division (PPD), electricity subsidy program, staff housing policy, income assistance program(s), as well as social, health and environmental costs related to carbon/emissions, (including but not limited to potential carbon taxes)].
        14. The structure of the net-metering program is preferable to the CIPP program because it is more attractive to potential proponents, except perhaps for large projects.
        15. The CIPP program should be cost-neutral to customers, but also attractive enough to encourage investment in renewables.
        16. There is no definition of renewable energy, or limit on generating capacity included in the CIPP program.
        17. The CIPP purchase price should include an incentive to promote Inuit ownership in renewable energy installations.
        18. The CIPP program should outline the need for a grid impact study and who is responsible for completing the work (i.e. not all of the onus should be placed on the CIPP proponent).
        19. The CIPP purchase price should include an additional allowance to reflect the value that renewables and battery energy storage can provide to operations and grid stability.
     3. Omission of a comment or feedback in this Report should not be interpreted as agreement or disagreement by the URRC, or, that it was not considered. For a more complete understanding of the comments and feedback please refer to the submissions.

1. EXAMINATION OF THE APPLICATION
   1. OVERALL OBJECTIVE AND PREMISE FOR THE CIPP PROGRAM
      1. The URRC notes that QEC stated its mandate is to provide safe and reliable electricity in an affordable fashion. QEC also stated that it “recognizes the need for a long-term approach that prioritizes and maximizes the benefits of moving to renewable energy and decreasing QEC’s dependency on diesel fuel, all while still providing safe, reliable and affordable electricity.” QEC submitted that the CIPP program aligns with that objective.
      2. The URRC asked for clarification of the policy or objectives QEC was proposing to achieve through the CIPP Application. The URRC notes that the *Qulliq Energy Corporation Act* was revised in 2018 to enable QEC to purchase power. The URRC also notes submissions by QEC and the Climate Change Secretariat that the GN (through its mandate document *Turaaqtavut*) is committed to reducing GHG emissions in Nunavut.
      3. QEC submitted that the CIPP program will not increase costs for customers, nor will it affect the reliability of service. Some of the public submissions aligned with QEC’s objective and premise for the program, however, others did not agree that cost increases must be avoided.
      4. The URRC notes that QEC submitted the CIPP program will not result in increased rates for customers. No additional staff or human resources will be required to implement, administer and operate the CIPP program. QEC also submitted that the need for additional investment in equipment, upgrades, or integration in the QEC system will be borne by the CIPP proponent. The URRC agrees that this is consistent with QEC’s stated approach that the cost of introducing renewable energy into Nunavut’s communities should not be passed on to QEC’s customers, who already pay some of the highest electricity rates across Canada.
      5. The URRC asked QEC about its review of independent power producer (IPP) program pricing option practices in other Canadian jurisdictions. It was clear from QEC’s Application and the public submissions that there is no consensus on how to introduce and provide incentives for the development of renewable generation. It was also clear that there are significant differences in service territory, systems, and legislation/policies/programs across Canada and that, while Nunavut may be informed by the approach taken in other jurisdictions, Nunavut and QEC should develop its own program. Noting the limited information provided in the CIPP Application, the URRC sought to supplement the Application through the IRs. QEC was helpful in its responses, but the URRC notes that other than the CIPP pricing structure, much of the CIPP program appears to be in development and not yet completed.
      6. In general terms the URRC agrees with the premise that QEC should enable the addition of renewable generation to its system without increasing the costs/rates of its other customers. The URRC will now continue with an assessment of whether or not the CIPP Application satisfies that premise and is complete enough to be approved as filed.
   2. CIPP PRICING STRUCTURE
      1. The URRC notes that QEC has only applied, at this time, for approval of its pricing structure Option 3. The URRC asked QEC to clarify aspects of its pricing structure and possible enhancements or modifications. The URRC also notes that all of the public submissions included feedback with suggested improvements to the pricing structure.
      2. QEC stated that the CIPP price should be based solely on the avoided cost of fuel required for generation. QEC submitted that this was the basis used in other jurisdictions. The URRC notes that some other jurisdictions have incorporated the avoided cost of fuel into their renewable programs. The URRC sought to better understand the relationship between renewable generation added to the QEC grid and the corresponding diesel savings. It was clarified that QEC assumed a one-to-one relationship, but that it may not be realized in the short term and individual cases due to loading and operational conditions. QEC submitted that it expected a linear or one‑to-one relationship between avoided diesel and renewable generation in the long term when meaningful penetration of CIPP proponents is attained. The URRC understands that while there may not be a perfect one-to-one relationship between avoided cost of diesel and renewable generation it should be close in the long term as suggested by QEC. None of the public submissions suggested otherwise, however most suggested that it should not form the sole basis for the CIPP price.
      3. The URRC notes that a CIPP price based solely on the avoided cost of fuel (i.e. not considering the other aspects of the CIPP pricing structure and program) may not result in increased costs for other QEC customers. However, it is less clear if it will be sufficient on its own to provide the necessary incentives to encourage the development of renewable generation in QEC’s service territory.
      4. The URRC notes that many of the public submissions included various additions to the CIPP price, and suggestions that the CIPP price should not be based solely on the avoided cost of diesel, if at all. The URRC asked for more information from QEC through the IR process.
      5. The URRC considered the various additions with the premise of not increasing rates/costs to other QEC customers. Based on that lens, it appeared to the URRC that most of the possible additions should only be considered for adoption by QEC if QEC is either: flowing grants or contributions through to CIPP proponents or flowing through costs it is actually avoiding. The URRC agrees with QEC that it is not acceptable to include additions in the CIPP price that are funded by other QEC customers especially if it will take some time for the additions to be confirmed.
      6. The URRC considers that avoided variable costs and deferred fixed costs should be considered for inclusion in the CIPP price at the appropriate time. The URRC notes that other jurisdictions include amounts for avoided variable costs and for deferred fixed costs. Similarly, if costs incurred by QEC in the future may be avoided through CIPP generation they should also be considered for inclusion in the CIPP price. An example would be if the cost of diesel for QEC included a carbon based tax in the future. In that case, the PPA (or CIPP price) should be flexible enough to pass on that saving to the CIPP proponent.
      7. The URRC also considers that grants or benefits related to encouraging renewable energy received by QEC should be considered for inclusion in the CIPP price.
      8. The URRC notes that the term, initial rate, adjustment mechanism and guaranteed minimum rate were all addressed in the public submissions. The URRC also had questions for QEC about the CIPP pricing structure. QEC provided a better explanation of its rationale for its Option 3 in the responses to IRs.
      9. The URRC considers that many of the suggestions for improvement could be addressed and included in the PPA. Matters like the term, renewal options, determination of the initial rate, guaranteed minimum rate, adjustment mechanism (including the escalation, de-escalation, overall cap on purchase rate increases), and regulatory review could all be clarified in the PPA.
      10. The URRC considers that there is merit in a PPA term that could extend beyond 25 years with renewal options, or have off-ramps for QEC and the CIPP proponent.
      11. The URRC considers that the initial rate based on a 3-year historical territorial average as applied for seems reasonable.
      12. The URRC notes suggestions that a guaranteed minimum rate is required, and similarly that the adjustment mechanism should be symmetrical, without a cap on increases. QEC elaborated on its rationale in the IR responses. However, the URRC questions whether the minimum rate should be ‘guaranteed’ by other QEC customers. Any decrease in fuel prices below the initial rate would transfer risk to other QEC customers. Similarly, the URRC questions why price increases/decreases should not be symmetrical, with no limits up or down. The URRC believes that if diesel costs are avoided they should be reflected in the CIPP price. Further, the adjustment mechanism should be frequent enough (e.g. annually) so that increases/decreases to the price are made in a timely way. The URRC does not agree that it should be tied to a GRA, which may or may not occur every 4 years. The URRC considers that if the adjustment mechanism is well documented, and clear enough, it may be made ‘routinely’ and without significant regulatory effort (or perhaps none).
      13. The URRC also notes suggestions that the ‘annual’ recalculation of the CIPP price based on ‘either one of the above options’ is not the best method, particularly when it only occurs every 4 years instead of annually.
      14. The URRC has reservations about the CIPP pricing structure and whether or not it meets the premise of the Application submitted by QEC. Some, but not all, aspects of the CIPP price protect QEC customers from increased costs/rates, however other aspects of the CIPP price limit incentives for proponents. The URRC notes submissions from QEC and the public that the business case for potential CIPP projects may rely heavily on incentives not currently reflected in the CIPP price. The URRC agrees with QEC and does not consider that these incentives should be funded by other QEC customers. Perhaps ‘new’ incentives provided by the GN or others for renewable generation, in addition to those currently available from Federal programs could be flowed through QEC and on to CIPP proponents.
   3. CIPP PROGRAM
      1. The URRC notes that QEC has not asked for approval of its CIPP program except for the pricing structure. The URRC notes that many of the public submissions provided feedback about matters that would be considered as part of the CIPP program and how it relates to net-metering and the IPP program that QEC is also working on. The URRC also had many similar questions. The URRC notes that QEC was responsive in the IR process and provided useful information in its responses to fill in some of the picture that is not covered by the pricing structure alone. Although some submissions suggested a ‘net metering’ model, the URRC notes that such a model would result in increased costs to QEC’s load customers.
      2. The URRC and others noted that the Application did not include a definition of renewable generation, how CIPP ‘meshed’ with net-metering and IPP, details about the PPA or technical interconnection requirements (TIR), limits on the introduction of renewable generation and how much of that limit could be filled by CIPP, as well as numerous other concerns.
      3. The URRC asked QEC about its plans to ‘finalize’ the CIPP program and its plans for future regulatory approvals (such as amendments to rates, terms and conditions of service and other aspects of CIPP that could be material for QEC and its customers, all of which will form integral parts of the CIPP program and which should be subjected to review and approval). The URRC considers that the CIPP program, in its entirety, is essentially a tariff. QEC provided some clarification in its responses to IRs. The URRC notes that many aspects of the CIPP program that have not been applied for may be material to the URRC’s understanding of the impacts of CIPP in relation to the overall premise submitted by QEC. Furthermore, the URRC has concerns about the prospects for success of the CIPP program, based solely on the Application that was submitted. It appears that most of those who made public submissions also questioned the potential for success of the CIPP program (based on the pricing structure and the other unknown aspects of the program).
      4. The URRC notes that the CIPP and IPP programs are under development by QEC. It appears for example that the PPA and TIR documents may be close to finalization. Similarly, it appears that based on responses to IRs, QEC may be close to finalizing other aspects of the CIPP program. Furthermore, there appears to be some interest in the CIPP program, as evidenced by the expressions of interest to date. The URRC does not have a view of the anticipated timing or likelihood or any of those projects proceeding. The URRC does not have enough information to know how QEC’s planned roll out of the CIPP program aligns with the plans by those planning renewable projects in Nunavut.
      5. Further, the URRC does not have enough information to know whether or not a potential CIPP proponent would proceed with a project based solely on approval of the CIPP pricing structure that was applied for by QEC.

1. URRC RECOMMENDATION
   * 1. Having considered the foregoing matters, the URRC recommends that the Minister direct QEC as follows:

* That the application for approval of Option 3 as described in the Application and information responses be denied at this time.
* That QEC should directly engage with stakeholders in its supply chain to identify any other potential avoided costs related to the introduction of renewable energy generation.
* That QEC should directly engage with other government departments and private organizations that are currently developing or are currently actively planning for the development and installation of commercial-scale renewable energy generation systems in Nunavut in order to better understand the financial requirements of those projects.
* That QEC should address the many concerns expressed in this Report about its pricing structure in any new CIPP Application.
* That QEC should reapply for approval of the CIPP program in its entirety when all aspects of the program are ready for approval, perhaps when the IPP is also ready to be submitted.
* That if any new grants, benefits, incentives, or cost savings related to renewable energy are identified by the GN or elsewhere, they should be made available to QEC so that they may be flowed through to CIPP proponents in the CIPP price.
  + 1. Nothing in this Report shall prejudice the URRC in its consideration of any other matters respecting QEC.

# ON BEHALF OF THE

**UTILITY RATES REVIEW COUNCIL OF NUNAVUT**

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**DATED: October 6, 2020**

**Anthony Rose**

**Chair Utility Rates Review Council**

1. QEC response to Information Request URRC-QEC-3(d), dated June 29, 2020 [↑](#footnote-ref-1)