



Executive Summary Qulliq Energy Corporation 2022/23 General Rate Application

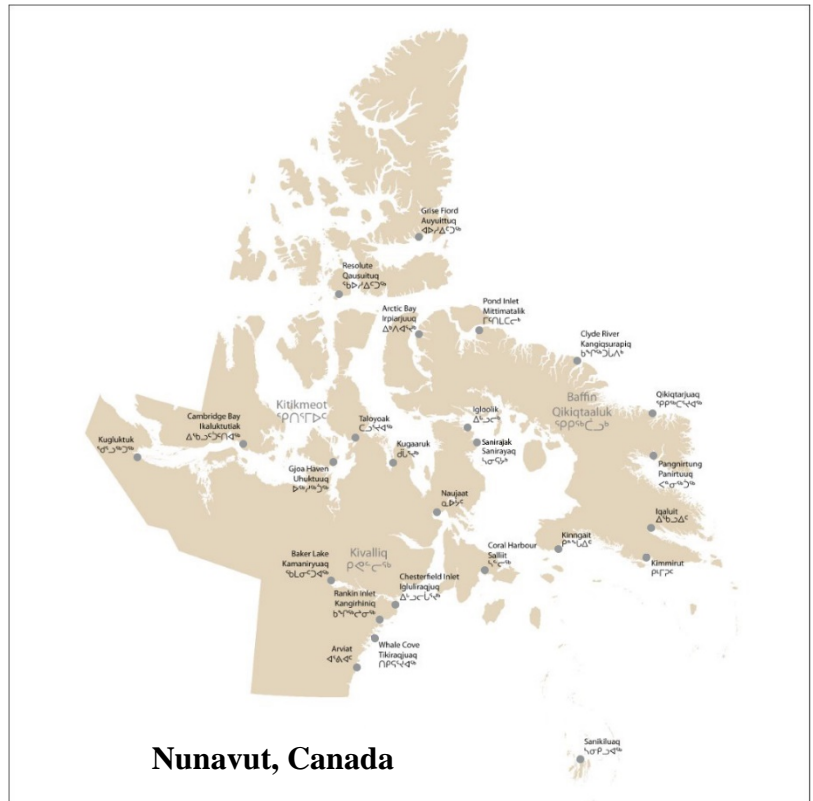
This document provides an overview of Qulliq Energy Corporation's (QEC) 2022/23 General Rate Application (GRA) to the Minister Responsible for QEC (the Minister) for rates effective October 1, 2022. The complete application is available from QEC at its office in Iqaluit, and from the QEC website at <http://www.qec.nu.ca/>.

1.0 OVERVIEW OF QEC

Qulliq Energy Corporation is the only generator and distributor of electrical energy for retail supply in Nunavut. QEC serves a population of about 38,800 over an area of 2.1 million square kilometers and has approximately 15,500 electrical customers across the Territory.

The Corporation generates and distributes electricity to Nunavummiut through the operation of diesel plants in 25 communities meeting community peak demands ranging from approximately 200 kW in Grise Fiord to 10 MW in Iqaluit.

The Corporation provides mechanical, electrical and line maintenance from three regional centers and administers the Corporation's business activities from its headquarters in Baker Lake and executive offices in Iqaluit.



Low customer densities and a harsh climate have a profound impact on QEC's operations. QEC is the only electrical utility in Northern Canada without hydro-electric generation. This creates a large dependence on fossil fuels.

QEC's electricity systems are isolated and must be planned and operated independently. In order to supply safe and reliable power, QEC develops long-term capital plans to determine which plants require upgrades, expansions or replacements. QEC also researches emerging alternative energy technologies to determine if they can be incorporated into the capital planning cycle. In 2018, QEC introduced a net metering program aimed at increasing renewable electricity generation. As a next step in the strategy to increase renewable energy generation in Nunavut, QEC implemented the Commercial and Institutional Power Producers (CIPP) program in March 2021. The program allows commercial and institutional customers to generate renewable electricity to sell to QEC.



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2.0 GRA AND RATE APPROVAL PROCESS

Qulliq Energy Corporation operates under the Qulliq Energy Act. Rates for electricity service are approved by the Minister who receives advice from the Utility Rates Review Council (URRC) pursuant to the Utility Rates Review Council Act. The URRC is an advisory body that reviews QEC's applications for changes to electricity rates.

A General Rate Application (GRA) is a request to change the overall level of rates (revenue requirement) and how rates are recovered from customers. QEC's last GRA was for the 2018/19 fiscal year. The GRA process has two phases:

- Phase I of a GRA examines the total cost of providing electrical service (called "revenue requirement"). Phase I reviews QEC's salaries and wages, travel costs, fuel costs and costs of capital projects and infrastructure.
- Phase II of a GRA determines how the revenue requirement should be recovered through rates for different customer classes (domestic, commercial, and street lighting). As part of the Phase II process, QEC completes a cost of service study that examines how different customer classes contribute to the overall cost of running the utility.

The URRC sets the timeline for the GRA review process but an approximate timeline based on previous reviews would result in a final instruction to QEC from the Minister in September of 2022.





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3.0 PHASE I: 2022/23 REVENUE REQUIREMENT

The GRA describes QEC's forecast costs for 2022/23 and requests approval of a revenue requirement of \$144.0 million. This results in a shortfall of \$6.6 million compared to revenues at existing rates.

The application indicates that average rate increase of 5.1% is needed to recover the shortfall compared to existing rates. The rate increase reflects the following key cost increases since the time of the 2022/23 GRA:

	Current GRA		
	2018/19	2022/23	2022/23
	Approved	Existing Rates	Proposed
	(\$ millions)	(\$ millions)	(\$ millions)
Non-fuel O&M	60.2	64.6	64.6
Fuel	48.8	51.5	51.5
Capital related costs	23.9	27.9	27.9
Total revenue requirement	132.9	144.0	144.0
Revenue from sales	132.9	137.4	144.0
Shortfall	0.0	6.6	0.0

Non-fuel Costs: Increases in non-fuel expenses are approximately \$4.4 million. This mainly reflects general inflationary pressures over the last four years as well as increases in salaries and wages from organizational restructuring required to maintain and improve service levels, as well as salary increases consistent with labour agreements.

Capital Investments: Increases in capital related costs (financing and amortization expenses) are approximately \$4.0 million. The requirement for capital investments in the aged electricity system in the territory is also one of the main drivers of the required rate increase. The Corporation cannot delay capital investments needed to provide safe and reliable electricity to customers.

Diesel Fuel Cost: Diesel fuel prices have increased since 2018/19 and increased fuel expense by approximately \$2.7 million.

Sales Revenues: Revenue at base energy rates has increased by \$4.5 million since the 2018/19 GRA. However, the increase in sales is not sufficient to fully offset increase in QEC's revenue requirement.

QEC has made efforts to mitigate rate impacts on customers in a number of ways without sacrificing safety and reliability. These include:

- **Fuel Efficiency Improvements:** QEC's corporate-wide fuel efficiency has improved since the last GRA reducing forecast fuel consumption by 100,000 litres (or \$94,000) for 2022/23.
- **Station Service Reductions:** Station service (electricity used by QEC at its facilities) has been reduced through a variety of initiatives and plant upgrades. The 2022/23 forecast is lower (3.1% of generation) than the 2018/19 forecast (3.3% of generation), as well as the 2014/15 forecast (3.5% of generation).



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4.0 PHASE II: PROBLEMS WITH EXISTING RATE STRUCTURE

QEC currently has different rates for each community it serves. QEC inherited the existing rate structure from the Northwest Territories Power Corporation (NTPC). Community-based rates are intended to reflect differences in costs to provide service in each community. However, the current rates do not accurately reflect community-based costs.

Other problems with community-based rates include:

- The recent practice of applying rate increases on an equal percentage basis to all customers results in higher rate increases (in cents per kWh) for some communities. For example, a 5.1% increase to domestic rates is about 2 cents/kWh in Iqaluit and about 4 cents/kWh in Kugaaruk.
- Large capital projects put enormous upward pressure on rates, especially for small communities. A community that needs a new power plant may face rate increases of 50% or more.
- As QEC continues with the implementation of renewable energy programs, current rate structure puts smaller communities at a disadvantage of renewable energy projects development compared to larger communities.



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5.0 PHASE II PROPOSAL TO IMPLEMENT TERRITORY-WIDE RATES

To address the issues with the existing community-based rates, the Corporation is proposing to implement a Territory-wide levelized rate structure (sometimes called a “postage stamp rate”). Under the Territory-wide rate, all customers in the same rate class would pay the same rates, regardless of where they live. These types of rates are common across Canada. In 2010, NTPC introduced a levelized rate structure for non-government customers in its thermal rate zone. Yukon also has levelized rates for most customers and consumption levels.

Consistent with the Ministerial Instruction dated May 30, 2018 and the URRC’s recommendation in Report 2018-01 of considering government support in transitioning to the territory-wide rate structure, the Corporation developed a rate proposal which avoids any bill increases to non-government domestic and commercial customers from rate rebalancing and decreases non-government rates in most communities.

Under QEC’s rate proposal, the territory-wide rate for non-government customers will be set at the Iqaluit non-government rates adjusted to the overall required rate increase of 5.1% (61.55 cents/kWh for domestic and 50.77 cents/kWh for commercial customers). The territory-wide rates for government classes will then be set at the level required to recover the remaining revenue shortfall to QEC (93.41 cents/kWh for domestic and 85.32 cents/kWh for commercial customers).

Under this approach, no non-government customer class will see bill impacts above the required equal percentage rate increase of 5.1% in the 2022/23 Test Year.

This approach results in the government customers energy purchase cost incremental increase of \$8.5 million to subsidize non-government customers, comprising:

- Government electricity purchase cost increase of \$11.3 million; and
- Nunavut Energy Subsidy Program (NESP) cost savings of \$2.8 million as a result of lower non-government domestic rates.

The proposed approach is somewhat similar to the approach undertaken in the Northwest Territories in 2010, which established zone-based rate structures with higher rates for government customers, which subsidize levelized non-government rates, resulting in higher effective revenue-cost coverage ratios for the government customer classes.



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6.0 EFFECT OF PROPOSED RATE CHANGES ON BILLS

The combined impact of the revenue requirement increases and the proposed transition to territory-wide rates will result in non-government bill increases limited to 5.1% for customers in communities that currently have lower than average rates and bill decreases for customers in communities that currently have higher than average rates:

- Non-government domestic customers receiving the territorial electricity subsidy will see bill increases of approximately \$11 per month on October 1, 2022 for a typical customer using 700 kWh each month.
- Non-government domestic customers who do not receive the territorial electricity subsidy will see bill decreases in 23 communities. Customers in Kugaaruk will see the largest decreases of approximately \$400 in 2022/23 (45.9%) on monthly consumption of 700 kWh.
- Non-government domestic customers who don't receive the subsidy will see bill increases in only two communities, which are related to the overall revenue requirement increase (Phase I). Customers in Iqaluit will see a bill increase of approximately \$22 (4.9%) in 2022/23 and customers in Rankin Inlet will see a bill increase of approximately \$7 (1.5%) in 2022/23 for a customer using 700 kWh.
- Non-government commercial customers in 24 communities will see a bill decrease. Customers in Whale Cove will see the largest decreases of approximately \$1,304 in 2018/19 (54.0%) on monthly consumption of 2,000 kWh.
- Non-government commercial customers in only one community (Iqaluit) will see a bill increase. Customers in Iqaluit will see a bill increase of approximately \$52 (4.9%) in 2022/23 for a commercial customer using 2,000 kWh per month. The bill increase for customers in Iqaluit in 2022/23 reflects only the overall revenue requirement increase (Phase I). As part of the transition process, no further rate adjustments are proposed in 2022/23 for these customers.

Sample Bill

Kugaaruk Domestic Non-Government

No Subsidy Bill

	Rates at September 30, 2022		Proposed October 1, 2022 (NES at 50% Iqaluit base rate)	
	700 kW.h		700 kW.h	
Usage				
Customer Charge		\$18.0		\$18.0
Energy Charge	\$1.160	\$812.3	\$0.616	\$431.0
Total BASE BILL		\$830.3		\$449.0
NET BILL		\$830.3		\$449.0
GST		\$41.5		\$22.5
NET BILL after Tax		\$871.8		\$471.5
Change from existing bill before tax			-\$381.3	-45.9%
Change from existing bill after tax			-\$400.4	-45.9%

Bill subsidized by NESP

NES Customer Rate	\$0.293	\$205.0	\$0.308	\$215.5
NES Subsidy				
Customer Charge Subsidy		(\$18.0)		(\$18.0)
Energy Subsidy	-\$0.868	(\$607.4)	-\$0.308	(\$215.5)
Subsidized BILL		\$205.0		\$215.5
GST		\$10.2		\$10.8
BILL after Tax		\$215.2		\$226.3
Change from existing bill before tax			\$10.5	5.1%
Change from existing bill after tax			\$11.1	5.1%