

Qulliq Energy Corporation



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Qulliq Energy Corporation
Société d'énergie Qulliq
Qulliq Alruyaktuqtunik Ikumatjutiit

Application for Major Project Permit

**GENSET REPLACEMENT FOR
RESOLUTE BAY**

April 2026



1 **Executive Summary**

2 Qulliq Energy Corporation (QEC) hereby applies to the Minister Responsible for Qulliq
3 Energy Corporation pursuant to section 18.1 of the *Qulliq Energy Corporation Act*,
4 R.S.N.W.T. 1988, c.N-2 for project permit for genset replacement in Resolute Bay. The
5 proposed major project will address reliability and capacity issues in the communities
6 related to the need to meet QEC's capacity planning criteria, address units that are at or
7 beyond their useful life and resolve reliability issues related to the unavailability of spare or
8 replacement parts.

9 QEC's estimated cost to complete the project is \$5.9 million. This would result in an
10 estimated 0.29 cents/kWh increase in revenue requirement by the time the project is fully
11 in service. The project will have no impact on rates until the time of QEC's first General
12 Rate Application following the project in-service date. Project budgets have been prepared
13 based on recent tendering experience with similar projects.

14 Genset replacement projects typically take two years to complete based on the need to
15 order equipment and schedule construction. The project is anticipated to be completed by
16 2028/29 fiscal year.



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Figure 2.1: Genset Replacement Community Location



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4 **2.1 Resolute Bay**

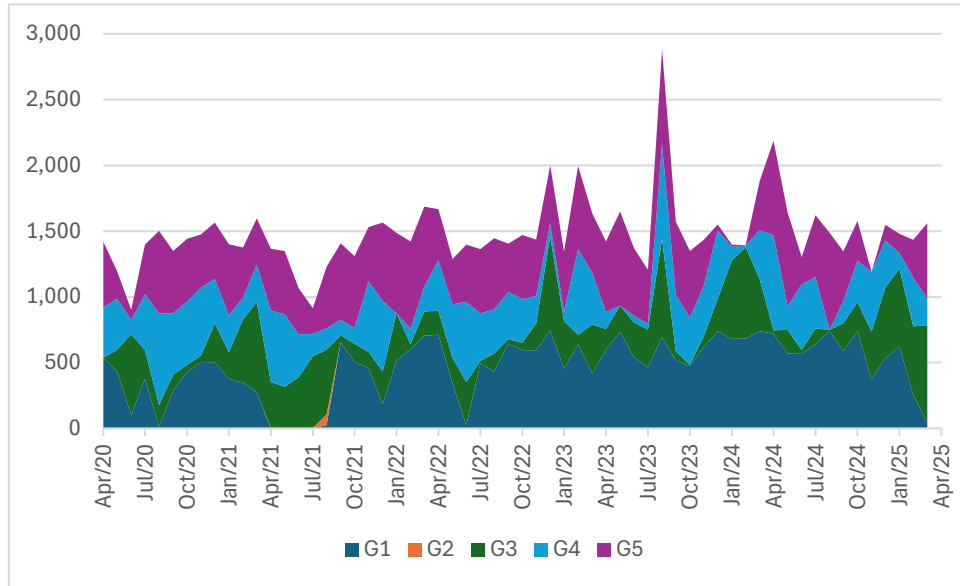
5 **2.1.1 Project Background**

6 Resolute Bay is one of Canada's northernmost communities, located in the Qikiqtaaluk
7 Region of Nunavut. The population of the community was 183 in the 2021 census, a
8 decrease of 7.6% from the 2016 census.² The hamlet is a military hub for Canadian Arctic.
9 Access to the community is primarily by air at the Resolute Bay airport or by sealift. Table
10 2.2 summarizes the current genset line-up installed in the community.

² Statistics Canada. 2021 Census of Canada. Available: <https://www12.statcan.gc.ca/census-recensement/2021/dp-pd/prof/details/page.cfm> Accessed, October 06, 2025.

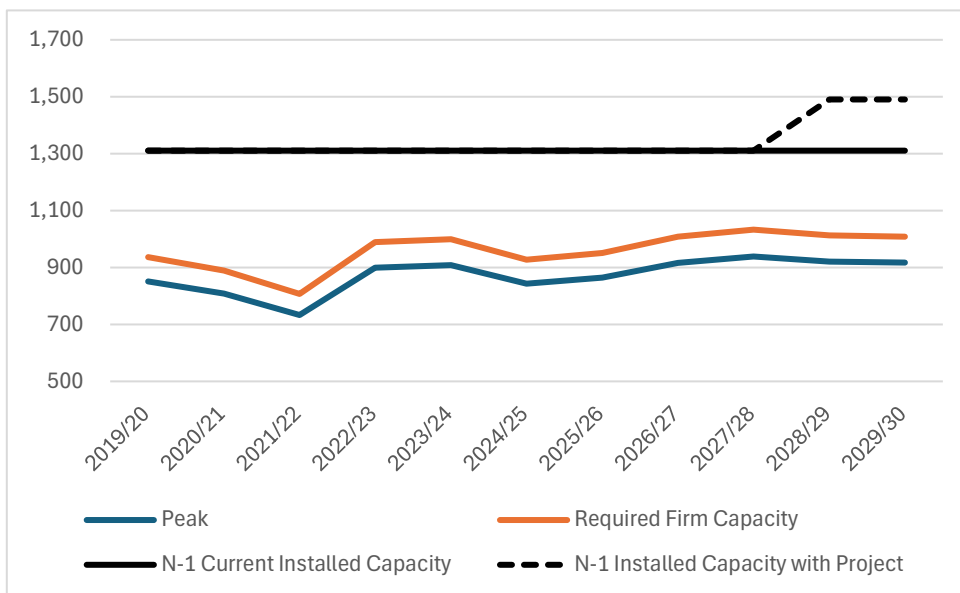


1 **Figure 2.2: Genset Run Hours – April 2020 through March 2025**



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 3 Resolute Bay’s community peak has been fairly stable. Replacing the aging G4 with a
 4 higher capacity genset will ensure the community continues to meet the required firm
 5 capacity criteria as shown in Figure 2.3, in particular considering the age of other gensets
 6 in the line up.

7 **Figure 2.3: Community Peak and Required Firm Capacity (kW)**



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