WHENEVER. WHEREVER. We'll be there.



April 30, 2024

Board of Commissioners of Public Utilities P.O. Box 21040 120 Torbay Road St. John's, NL A1A 5B2

Attention:

Jo-Anne Galarneau

Executive Director and Board Secretary

Re: 2024 Curtailable Service Option Report

Dear Ms. Galarneau:

Please find enclosed Newfoundland Power Inc.'s 2024 Curtailable Service Option Report.

If you have any questions, please contact the undersigned.

Yours very truly,

Dominic Foley Legal Counsel

Enclosures

ec. Shirley Walsh

Newfoundland and Labrador Hydro

Dennis Browne, KC

Browne Fitzgerald Morgan & Avis

2024 Curtailable Service Option Report April 30, 2024



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1.0 Purpose of Report

This report summarizes the annual costs of maintaining Newfoundland Power Inc.'s ("Newfoundland Power" or the "Company") Curtailable Service Option (the "Option") and the Option statistics for the 2023-2024 winter season, including the impact of curtailment on the demand of customers availing of the Option ("Option Participants").

This report is submitted in accordance with Order No. P.U. 7 (1996-97), which states:

"The Applicant shall follow the directions given in Items (4) and (5) of Order No. P.U. 4 (1994-95) and provide the updated statistics, thirty days after each 'winter season' for the Board's information and evaluation."

Items (4) and (5) of Order No. P.U. 4 (1994-95) are as follows:

- (4) "Accounts will be established to accumulate all costs associated with the curtailable service option for purpose of evaluation at the next rate hearing.
- (5) Statistics are to be compiled for the purpose of determining the impact on peak load conditions during the period in which curtailment occurred."

In Order No. P.U. 47 (2014), the Board of Commissioners of Public Utilities of Newfoundland and Labrador (the "Board") approved interim revisions to Newfoundland and Labrador Hydro's ("Hydro") Utility rate to reflect a curtailable load credit (the "Curtailable Credit") in the computation of billing demand for Newfoundland Power for the period December 1, 2014 to March 31, 2015.

In Order No. P.U. 9 (2016), the Board ordered continued use of the Curtailable Credit, on an interim basis, effective December 1, 2015.

On December 1, 2016, the Board issued Order No. P.U. 49 (2016). In the Order, the Board approved use of the Curtailable Credit on a final basis.

The Curtailable Credit ensures that curtailments are requested from Newfoundland Power customers only to meet system load requirements. Previously, curtailments pursuant to the Option were also requested to reduce the demand requirements of the Company during peak load conditions.

2.0 Costs of the Curtailable Service Option

The operating costs incurred by Newfoundland Power in offering the Option include labour costs, modem rental costs and the cost of curtailment credits paid to Option Participants.

Table 1 compares the costs for the 2023-2024 winter season to the costs for the 2022-2023 winter season.

Table 1: Curtailable Service Option Operating Costs

	2023-2024 Winter Season	2022-2023 Winter Season
Labour	\$10,161	\$10,277
Modem Rentals	\$3,000	\$3,120
Curtailment Credits	\$433,247	\$418,286
Total Operating Costs	\$446,408	\$431,683
Customers ¹	23	24

The total curtailment credits of \$433,247 for the current period compare to a total of \$418,286 for the same period during the previous year. The credit total for the 2023-2024 winter season is higher than the previous seasons total. This is attributable to variations in Option Participants' demand and consumption as well as the mix of Option participants achieving full, partial, or no credit.²

3.0 Curtailable Service Option Statistics

3.1 Impact of Curtailment Request

There were no curtailment requests during the 2023-2024 winter season, apart from the Curtailment Test, which was carried out on December 6, 2023 from 9:00 a.m. to 11:00 a.m.³

One customer could no longer participate in the Option due to operational changes at their facility.

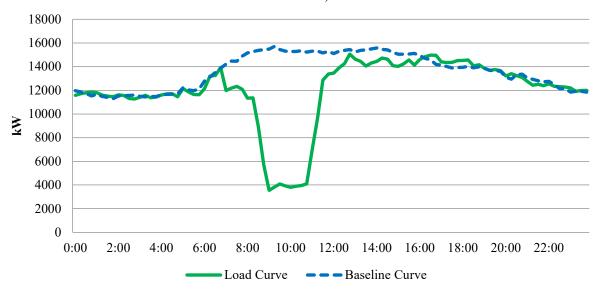
During the 2023-2024 winter season, all Option customers received a credit. One customer received a larger credit than the previous year due to an increase in their curtailable load. Two customers failed to curtail at the appropriate time during the curtailment request and consequently received a partial credit. One customer received a larger credit relative to the partial credit they received in the 2022-2023 winter season.

In accordance with Hydro's Utility rate, the Curtailable Credit is required to be verified annually. The verification test involves curtailing Option Participants' load and operating Newfoundland Power's backup generation at the Duffy Place and Kenmount Road offices at a minimum of the load on which the Curtailable Credit is based for a period of one hour (the "Curtailment Test"). Curtailment by Option Participants and Newfoundland Power's backup generation amounted to 12.7 MW during the 2023-2024 verification test. Newfoundland Power's Curtailment Credit from Hydro is 12 MW.

During the request, the average load curtailed was 11.5 MW, and 21 of the 23 Option Participants were successful in their curtailment.⁴

Figure 1 illustrates the impact of the curtailment request on the demand of customers availing of the Option on December 6, 2023.

Figure 1 Aggregate Load Curve for the Curtailment Request December 6, 2023



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Curtailment is measured based on a comparison of the aggregate customer load curve for the curtailment event day to a *baseline curve*. A baseline curve is an estimate of what the customer aggregate load would have been had there been no curtailment. The difference between the baseline curve and the aggregate curve for the event day determines the impact of the curtailment. A baseline curve is the average of the aggregate load curves for the most recent three days of the same day type (i.e. weekday vs. weekend). Prior to averaging, the load data for each of the most recent three days are weather-adjusted (for temperature and wind) to match the weather on the day of curtailment event. The weather adjustment is based on a statistical regression analysis of the aggregate load data for the related winter season. When necessary, one or more of the three most recent days may be excluded if the load shape is considered abnormal or if one or more of the following three days is considered more comparable.

3.2 2023-2024 Winter Season Curtailment Service Option Statistics

Table 2 provides the Option Participant statistics for the 2023-2024 winter season on a total basis.

Table 2: Curtailable Service Option Participant Statistics

Number of Curtailment Requests	1
Number of Curtailment Days	1
Number of Customers Available to Curtail	23
Number of Customer Curtailment Failures	2
Number of Successful Customer Curtailments	21
% of Successful Curtailments	91%
Requested Hours of Curtailment	2
Avoided Load due to Curtailment	11.5 MW

4.0 Summary

The cost of offering the Option for the 2023-2024 winter season was \$446,408, of which \$433,247 was paid to Option Participants in curtailment credits. The balance consists of internal labour and other costs associated with administration of the Option.

During the 2023-2024 winter season, a total of 23 customers participated in the Option. There was one request for curtailment, a Curtailment Test, resulting in approximately two hours of curtailment.

The average load curtailed under the Option during the 2023-2024 winter season was 11.5 MW.