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September 30, 2026

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

Attention: Mike McNiven
Board Secretary

Dear Mr. McNiven:

Re: Load Research and Rate Design Update

Please find enclosed Newfoundland Power Inc.'s Load Research and Rate Design Update – September 30, 2026, as requested by the Board in Order No. P.U. 3 (2025).

If you have any questions, please contact the undersigned.

Regards,

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Load Research and Rate Design Update September 30, 2026

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1.0 INTRODUCTION

In Order No. P.U. 3 (2025) in relation to Newfoundland Power Inc.'s ("Newfoundland Power" or the "Company") *2025/2026 General Rate Application*, the Newfoundland and Labrador Board of Commissioners of Public Utilities (the "Board") requested Newfoundland Power to provide updates every six months on the status of its Load Research Study and Rate Design Review, on or before April 1, as part of its annual return, and also on September 30 each year.¹

The Load Research and Rate Design Update – September 30, 2026, provides an update on Newfoundland Power's load research and rate design activities since the *Load Research and Rate Design Update – March 31, 2026* (the "March 2026 Update") was provided to the Board. Newfoundland Power remains within its overall forecast expenditures and schedule outlined in the March 2026 Update.²

2.0 BACKGROUND

Periodic reviews of Newfoundland Power's rate designs are necessary to ensure the Company's rate designs are consistent with good ratemaking principles and consider utility cost dynamics. Customer load research is periodically required to ensure the appropriate allocation of costs among Newfoundland Power's customer rate classes.

On May 16, 2024, the Provincial Government announced the finalization of its Rate Mitigation Plan. This provided greater clarity in the near term in relation to customer rate increases associated with the Muskrat Falls Project and Newfoundland and Labrador Hydro ("Hydro") until 2030.³ In January 2025, Hydro's Utility rate to Newfoundland Power was revised to ensure that energy charges from Hydro to Newfoundland Power more closely reflect Hydro's marginal cost of energy and to mitigate customer rate volatility.⁴

A review of Newfoundland Power's rate designs is timely considering changes to supply cost dynamics resulting from the integration of the Muskrat Falls Project into the provincial electrical system and changes to the Utility rate charged by Hydro to Newfoundland Power. Customer load research at this time provides updated customer load profiles and data that are necessary to evaluate current customer end use activities, rate designs, and cost recovery within Newfoundland Power's various rate classes.

3.0 LOAD RESEARCH

Load research data, combined with industry-standard statistical analysis techniques, is used to assess the reasonableness of cost recovery from each customer rate class. The output of the analysis provides a means to estimate customer rate class demands on Newfoundland Power's electrical system at specific times. This is used to determine the portion of system demand costs that should be recovered from each customer class.

¹ See Order No. P.U. 3 (2025), page 58, lines 30-32.

² See March 2026 Update, Table 1 and Table 2.

³ See Government of Newfoundland and Labrador News release *Provincial Government Announces Finalization of Rate Mitigation Plan*, May 16, 2024.

⁴ See Order No. P.U. 1 (2025).

Customer demand requirements are more than twice as high in the winter months as in the summer months.⁵ Generation and transmission demand costs are allocated by customer classes in the cost of service study based on each customer class's contribution to the winter system peak (i.e., based on coincident peak).⁶ Distribution demand costs are allocated based on the relative size of the class peak demands (i.e., based on non-coincident peak).

Newfoundland Power and its load research consultant, DNV, continue to analyze customer load data collected as part of the Load Research Study. DNV completed its *Load Research Analysis: Four Months Ending March 31, 2025*, report (the "2024-2025 DNV Report") in March 2026. Work on DNV's report for the 2025-2026 winter season is nearing completion. The report will compare the results of the two winter seasons and include an analysis of annual customer load data.

3.1 The 2024-2025 DNV Report

The 2024-2025 DNV Report analyzed customer load data collected during the first winter season of the Load Research Study, from December 1, 2024, to March 31, 2025.⁷ The study period included Newfoundland Power's 2024-2025 winter peak of 1,429,407 kW, which occurred at 8:06 am on January 23, 2025.⁸

The 2024-2025 DNV Report describes DNV's methodology and includes analyses of: (i) monthly load profiles; (ii) the relationship between customer loads and temperature; (iii) EnergyPrints showing customer load intensity by month and time of day; (iv) the relative precision of the load research samples; and (v) estimated annual load factors.

The results of the 2024-2025 DNV Report demonstrate that the Load Research Study methodology produced statistically reliable estimates for the first winter season. The relative precision of the estimated class peaks met the study's target of less than 10% at the 90% confidence level for each rate class.⁹

⁵ For example, Newfoundland Power's monthly peak demands in July and August of 2026 were approximately 576 MW, and 569 MW, respectively. This compares to Newfoundland Power's January 26, 2026, winter peak of 1,461 MW.

⁶ This is referred to as the single coincident peak method (1 CP). For the purposes of the Load Research Study, the system peak is based on the time of Hydro's system peak because the majority of the Company's generation and transmission demand costs are related to Hydro's assets.

⁷ Newfoundland Power provided the *2024-2025 DNV Report* to the Parties on March 27, 2026.

⁸ As per Newfoundland and Labrador Hydro's April 4, 2025, letter *Re: Weather-Adjusted Native Load by Newfoundland Power Inc.* Newfoundland Power's maximum native load occurred on Thursday, January 23, 2025, at 8:06 am and was 1,429,407 kW. The weather-adjusted maximum native load for the 2024-2025 winter season was 1,457,658 kW.

⁹ Generally accepted relative precision criteria for load research originated with requirements established under the U.S. Public Utility Regulatory Policies Act of 1978 ("PURPA"). These criteria provided that customer loads for major rate classes should be estimated within $\pm 10\%$ at a 90% confidence level. See DNV's *Load Research Study Plan – Newfoundland Power Inc.*, June 15, 2023, page 5, footnote 1.

3.2 The 2025-2026 DNV Report

Newfoundland Power's 2025-2026 winter peak was 1,461,115 kW, compared with 1,429,407 kW during the 2024-2025 winter season. Similar to the 2024-2025 winter season, the 2025-2026 winter peak occurred in the fourth week of January between 8:00 am and 9:00 am.¹⁰

Since the 2024-2025 DNV Report was circulated to the Parties in March 2026, DNV has focused on completing the analysis required for its report on the 2025-2026 winter season (the "2025-2026 DNV Report"). The 2025-2026 DNV Report will analyze customer load data collected from December 1, 2025, to March 31, 2026, compare the results with those presented in the 2024-2025 DNV Report, and include an analysis of annual customer load data.

The 2025-2026 DNV Report is expected to be completed in 2026. Its results will inform Newfoundland Power's customer rate designs and cost of service study for its 2027 General Rate Application.¹¹

4.0 RATE DESIGN

Newfoundland Power serves approximately 279,600 customers. This includes approximately 243,400 Domestic customers, 24,600 General Service customers, and 11,600 Street and Area Lighting customers.¹² The majority of the Company's Domestic customer rates include monthly Basic Customer Charges and a flat kWh energy rate.¹³ General Service customer rates include monthly Basic Customer Charges, demand charges that vary by season, and energy charges that vary depending on monthly consumption.¹⁴ Street and Area Lighting customers pay a monthly rate based on the type and size of lighting equipment installed.

The standard for assessing the appropriateness of customer rate design is guided by the Criteria of Sound Rate Structure described by James Bonbright in *Principles of Public Utility Rates*.¹⁵ These criteria include effectiveness, practicality, stability, revenue sufficiency, price efficiency, and fairness. The Board has previously recognized these criteria in establishing customer rates.¹⁶

¹⁰ As per Newfoundland and Labrador Hydro's April 1, 2026, letter *Re: Weather-Adjusted Native Load by Newfoundland Power Inc.* Newfoundland Power's maximum native load occurred on Monday, January 26, 2026, at 8:41 am and was 1,461,115 kW. The weather-adjusted maximum native load for the 2025-2026 winter season was 1,483,796 kW.

¹¹ In accordance with Order No. P.U. 3 (2025), Newfoundland Power is required to file its next General Rate Application no later than June 1, 2027.

¹² Based on Newfoundland Power customers as of December 31, 2025.

¹³ Approximately 1,100 of Newfoundland Power's customers avail of the Domestic Seasonal – Optional rate which includes seasonal energy charges for consumption during December through April and May through November. Domestic Seasonal – Optional customers are charged the same monthly Basic Customer Charge as all other Domestic customers. Domestic customer Basic Customer Charges are dependent on the size of the customer's service (i.e. those not exceeding 200 Amp Service and those exceeding 200 Amp Service). Newfoundland Power's Domestic customer rates also include a 1.5% early payment discount.

¹⁴ Newfoundland Power's three General Service Rate Classes include: Rate 2.1 0-100 kW (110 kVA); Rate 2.3 110 kVA (100 kW) – 1000 kVA; and Rate 2.4 1000 kVA and Over. General Service customer charges also include a 1.5% early payment discount, a Minimum Monthly Charge, and a Maximum Monthly Charge.

¹⁵ Bonbright, *Principles of Public Utility Rates*, Public Utilities Reports, 1988, Pages 383-384.

¹⁶ See, for example, Order No. P.U. 19 (2003).

The Company is continuing with its phased approach to the Rate Design Review as described in the Load Research and Rate Design Framework.

4.1 Phase One

Newfoundland Power completed Phase One of its Rate Design Review in 2024. This included completion of the Christensen Associates Energy Consulting ("Christensen") *Rate Design Review: Phase 1* report (the "Phase One Report") which was provided to the Parties on April 2, 2024. The Phase One Report included: (i) a review of Newfoundland Power's existing rates; (ii) a review of Newfoundland Power's existing metering capabilities; (iii) anticipated changes in Newfoundland Power's marginal supply costs; (iv) a review of customer rates in other Canadian jurisdictions; and (v) a description of alternatives that should be considered in Phase Two of the Rate Design Review.

The Phase One Report indicated that Newfoundland Power seems well-positioned with its current rate designs. The Phase One Report recommended the Company leave current rate designs in place, adjusting the customer, energy, and demand charges to ensure full cost recovery under Hydro's new price levels and to more adequately reflect changes in Hydro's marginal costs. The Phase One Report also recommended consideration of seasonal prices for the Company's default rate designs, a dual electric space heating rate, and a longer-term curtailable rate for large customers.

4.2 Phase Two

The purpose of Phase Two is to evaluate the impact of alternative rate designs on Newfoundland Power's customers with consideration given to changing marginal supply costs, embedded costs, and updated load research.

Newfoundland Power is currently completing Phase Two of the rate design review. This follows: (i) the completion of the Phase One Rate Design Review; (ii) additional clarity regarding cost recovery associated with the Muskrat Falls Project due to finalization of the Provincial Government rate mitigation plan; and (iii) the establishment of a new Utility rate charged from Hydro to Newfoundland Power which more accurately reflects marginal supply costs.¹⁷ In addition, results from the ongoing Load Research Study will enable the Company to evaluate alternative rate designs with updated customer load data.

Key tasks planned for completion over the remainder of 2026 include: (i) finalizing customer engagement activities; (ii) finalizing customer rate design reviews using models developed by Christensen and updated load research provided by DNV; (iii) completion of the marginal distribution cost study; and (iv) additional work outlined by the Board in Order No. P.U. 3 (2025) related to an assessment of the reasonableness of the existing rate structure for MUN and customers primarily served by transmission assets, as well as a review of the Company's general service contribution policy for transmission assets.¹⁸

¹⁷ Changes to Hydro's Utility rate charged to Newfoundland Power were approved by the Board in Order No. P.U. 1 (2025).

¹⁸ This is consistent with direction from the Board following Newfoundland Power's *2025/2026 General Rate Application*. See Order No. P.U. 3 (2025), page 59, lines 27-30, and page 60, lines 26-27.

The results of Phase Two of the Rate Design Review will inform any proposed changes to customer rate designs that the Company may present in its next General Rate Application, which is required to be filed by June 1, 2027.

Customer Engagement

Newfoundland Power engaged MQO Research ("MQO") to aid in the development of a customer engagement plan and facilitate customer engagement activities. The *Rate Design Review Customer Engagement Plan* (the "Customer Engagement Plan") was circulated to the Parties for review in October 2025.¹⁹ The Customer Engagement Plan included two components: (i) online surveys for Domestic and General Service customers; and (ii) an online bulletin board. Consistent with the Customer Engagement Plan, the purpose of the customer survey is to assess practical-related attributes associated with existing and alternative rate designs.²⁰

The online survey is a quantitative approach to gathering information from customers that can be analyzed and used to understand customer preferences and inform future rate designs. Consistent with the Customer Engagement Plan, the surveys assessed customer preferences for the existing rate structure and the following alternatives identified in the Phase One Report: (i) seasonal rates; (ii) time-of-use rates; (iii) critical peak pricing rates; (iv) ultra-low overnight rates; and (v) dual-energy heating system rates. Simplified descriptions and diagrams were used in the survey to help customers understand each rate alternative.

The Domestic customer survey was conducted from April 21 to May 4, 2026, and received 1,078 responses. The General Service customer survey was conducted from April 21 to June 17, 2026, and received 473 responses. Newfoundland Power and MQO are reviewing the survey information.

Newfoundland Power and MQO are continuing the remaining customer engagement activities. These include finalizing the qualitative online bulletin board component of the Customer Engagement Plan. The bulletin board will include selected participants from the customer surveys and will provide additional qualitative information concerning customer views on existing and alternative rate designs. Following completion of the bulletin board, MQO will prepare a summary report on the customer engagement activities. The results of the customer engagement process will inform completion of Phase Two of the Rate Design Review.

Remaining Work

Newfoundland Power continues to work with Christensen toward completion of Phase Two of the Rate Design Review. Newfoundland Power and Christensen are completing rate modelling and customer rate impact analyses for the Domestic and General Service customer classes. This work will incorporate updated load research, including the effect of revised customer-class load factors on cost allocation and class revenue-to-cost ratios.

¹⁹ Newfoundland Power received feedback in relation to the Customer Engagement Plan from Newfoundland and Labrador Hydro ("Hydro"). Feedback received from Hydro was included in the implementation of the Customer Engagement Plan.

²⁰ The standard for assessing the appropriateness of customer rate design is guided by the *Criteria for Sound Rate Structure* described by James Bonbright in *Principles of Public Utility Rates*, Public Utilities Reports, 1988, Pages 382-384. The criteria include revenue-related attributes, cost related attributes, and practical-related attributes.

In addition to evaluating customer rate designs, Newfoundland Power and Christensen are completing: (i) an assessment of the existing rate structure and cost recovery for MUN and other customers primarily served by transmission assets; (ii) a review of the General Service contribution policy for transmission assets; and (iii) the Distribution Marginal Cost Study. The results of this work will inform any customer rate design changes the Company may propose in its next General Rate Application.

5.0 CONCLUSION

Newfoundland Power continues to advance the Load Research Study toward completion. The 2024-2025 DNV Report confirmed that the study methodology produced statistically reliable class-peak estimates for the first winter season, with the relative precision for each rate class meeting the study's target of less than 10% at the 90% confidence level. DNV is completing the 2025-2026 DNV Report, which will analyze the second winter season, compare the results of the two winter seasons, and include an analysis of annual customer load data. The completed load research will provide updated customer-class load profiles and demand information to support Newfoundland Power's cost of service study and Rate Design Review for its next General Rate Application.

Newfoundland Power continues to advance Phase Two of the Rate Design Review. The Domestic and General Service customer surveys have been completed, and Newfoundland Power and MQO are finalizing the qualitative online bulletin board component of the Customer Engagement Plan. The results of the customer engagement activities will inform completion of Phase Two. Newfoundland Power and Christensen are completing the rate modelling and customer rate impact analyses, the Distribution Marginal Cost Study, and the reviews concerning MUN, other customers primarily served by transmission assets, and the General Service contribution policy for transmission assets. This work will inform any customer rate design proposals that the Company may present in its next General Rate Application.