NEWFOUNDLAND AND LABRADOR
BOARD OF COMMISSIONERS OF PUBLIC UTILITIES
120 Torbay Road, P.O. Box 21040, St. John's, Newfoundland and Labrador, Canada, A1A 5B2

E-mail: dfoley@newfoundlandpower.com

2023-08-07

Dominic Foley
Newfoundland Power Inc.
Legal Counsel
P.O. Box 8910
55 Kenmount Road
St. John's, NL A1B 3P6

Dear Sir:

Re: Newfoundland Power Inc. - 2024 Capital Budget Application - Requests for Information PUB-NP-001 to PUB-NP-051

Enclosed are Requests for Information PUB-NP-001 to PUB-NP-051 regarding the above-noted application.

If you have any questions, please do not hesitate to contact the Board's Legal Counsel, Jacqui Glynn, by email, jglynn@pub.nl.ca or telephone (709) 726-6781.

Sincerely,

Cheryl Blundon
Board Secretary

CB/cj

ecc **Newfoundland Power Inc.**
Liam O'Brien, E-mail: lobrien@curtisdawe.com
NP Regulatory, E-mail: regulatory@newfoundlandpower.com
Newfoundland and Labrador Hydro
Shirley Walsh, E-mail: shirleywalsh@nlh.nl.ca
NLH Regulatory, E-mail: NLHRegulatory@nlh.nl.ca
Consumer Advocate
Dennis Browne, K.C., E-mail: dbrowne@bfma-law.com
Stephen Fitzgerald, E-mail: sfitzgerald@bfma-law.com
Sarah Fitzgerald, E-mail: sarahfitzgerald@bfma-law.com
Bernice Bailey, E-mail: bbailey@bfma-law.com

IN THE MATTER OF the **Public Utilities Act**, (the "**Act**"); and

IN THE MATTER OF capital expenditures and rate base of Newfoundland Power Inc.; and

IN THE MATTER OF an application by Newfoundland Power Inc. for an order pursuant to sections 41 and 78 of the **Act**: (a) approving its 2024 Capital Budget; and (b) fixing and determining its 2022 rate base.

PUBLIC UTILITIES BOARD
REQUESTS FOR INFORMATION

PUB-NP-001 to PUB-NP-051

Issued: August 7, 2023

2024 Capital Budget Overview

PUB-NP-001 Page 2. It is stated that the Application is organized to comply with the spirit and intent of the Capital Budget Application Guidelines (Provisional Guidelines). Please explain where the Application does not comply with the Provisional Guidelines, explain why not and the information provided instead to meet the spirit and intent of the Provisional Guidelines.

PUB-NP-002 Page 8. Please provide Newfoundland Power's targets and actual results for reliability performance for the last ten years. Explain how these targets are established and how they are considered in the capital planning process.

PUB-NP-003 Page 8. It is stated that the average duration of Newfoundland Power customer outages is half the Canadian average while the frequency of customer outages is consistent with the Canadian average since 2013. On pages 12-13, SAIDI data is provided for Atlantic Canadian utilities which indicates that Newfoundland Power's service reliability performance has been better than the average for Atlantic Canadian utilities from 2012 to 2021. How does Newfoundland Power consider the reliability performance of Canadian peer utilities in establishing reliability targets and in its capital planning process? Why, in Newfoundland Power's opinion, has its SAIDI reliability performance exceeded the Canadian average and the Atlantic Canadian utilities average?

PUB-NP-004 Page 10. Please provide a table that shows all savings and reduced operating costs expected to be achieved with the implementation of the proposed 2024 capital budget projects and programs.

PUB-NP-005 Page 15. Please provide an update on the Customer Service System Replacement project cost, scope, schedule and anticipated savings in comparison to the approved project budget.

PUB-NP-006 Appendix B, Table B-1. It is stated that the Applications Enhancement project was originally planned for 2024, but the scope was modified through the annual review process. However, an Applications Enhancement project is included in the 2024 Capital Budget in Schedule B at page 104. Please explain when the project referred to in Appendix B was originally planned and if it was in 2024 and how it has been modified.

PUB-NP-007 Appendix B, Table B-2. The explanation for the deferral from 2024 to subsequent years for the first four projects in Table B-2 is "to allow further engineering assessment". Please provide further explanation for each project as to how it reached the stage of consideration for inclusion in the 2024 Capital Budget if sufficient engineering had not been completed and what specifically for each project requires additional engineering assessment.

PUB-NP-008 Appendix B, Tables B-2 and B-3. Explain in detail the process Newfoundland Power follows to determine whether a proposed capital project should be deferred or accelerated and the criteria that is used to make the decision to defer or accelerate.

Schedule B Projects and Programs over $750,000

PUB-NP-009 Page 2, LED Street Lighting Replacement. Please provide an update on the progress to date on this program. In the response include a comparison of the budget approved and the actual expenditures incurred for each year, the number of fixtures planned for each year, the actual number of fixtures replaced each year and explain any significant variances.

PUB-NP-010 Page 36, Rebuild Distribution Lines. It is stated that distribution feeders are inspected on a seven-year cycle. When did Newfoundland Power last review the appropriateness of this frequency and is it consistent with Canadian utility practices?

PUB-NP-011 Page 61, Gambo Substation Refurbishment and Modernization Substations. It is stated that a condition assessment determined that the substation contains a significant amount of deteriorated and obsolete equipment with several pieces of equipment at the end of life. List the number of equipment failures at this substation in the last five years.

PUB-NP-012 Page 61, Gambo Substation Refurbishment and Modernization Substations. Substations are inspected eight times a year under the Substation Refurbishment and Modernization Plan. When did inspections find the deteriorated and obsolete equipment at Gambo Substation and how did Newfoundland Power determine the appropriate time to undertake the refurbishment and modernization of this substation?

PUB-NP-013 Page 67, Memorial Substation Refurbishment and Modernization Substations.

a) Will Memorial University be providing any contribution towards the cost of completing the Memorial Substation project? If there is no contribution, please explain why Newfoundland Power considers this to be appropriate and fair and whether this approach is consistent with treatment of other customers in General Service Rate Class 2.4.

b) Memorial University will also be conducting work on its own electrical assets in the Memorial Substation during 2023-2024 and Newfoundland Power is proposing a project for the substation that will commence in 2024 and be completed in 2025. Please confirm that the scope outlined of Newfoundland Power's proposed capital budget relates only to assets owned by Newfoundland Power and does not include work on Memorial University's assets.

c) Will Newfoundland Power employees or contractors be engaged to complete any work on the assets owned by Memorial University? If yes, how will the

costs be tracked to ensure the costs for the Memorial Substation project only include costs relating to Newfoundland Power assets?

PUB-NP-014 Page 137, Allowance for Unforeseen Items. The Allowance for Unforeseen Items for $750,000 is included in Schedule B listing projects over $750,000.

a) Please explain why Newfoundland Power included this Allowance in Schedule B given the amount for the project is not greater than $750,000 and whether Newfoundland Power considers this Allowance the same as a capital project over $750,000.

b) Has Newfoundland Power considered increasing the amount of the Allowance? If yes, explain why it has not been increased. If no, explain why it hasn't considered increasing the amount at this time.

c) How and in what circumstances in 2024 would Newfoundland Power use the funds available under this Allowance?

Schedule C Projects and Programs under $750,000

PUB-NP-015 Pages 3-4. Two projects are listed under Substations for the Oxen Pond Substation; Bus Upgrade ($451,000) and Switch Replacements ($316,000).

a) Please explain why these two projects were not grouped together for one project over $750,000.

b) Is either project proposed for Oxen Pond Substation required as a result of Memorial University's conversion to electric boilers?

c) Will Memorial University be contributing to the cost of these projects? If there is no contribution, please explain why Newfoundland Power considers this fair and appropriate for customers.

2024-2028 Capital Plan

PUB-NP-016 Page 1. It is stated that a framework for scope, stages and timelines has been developed for the asset management review being undertaken by Newfoundland Power. Please provide a copy of this framework.

PUB-NP-017 Page 1. Please provide an update, including work completed to date, on the ongoing review of Newfoundland Power's asset management practices.

PUB-NP-018 Page 1. The review of Newfoundland Power's asset management program is expected to be completed in 2024. What process does Newfoundland Power anticipate will occur after the completion of the review, including whether any review by the Board will be required? Does Newfoundland Power anticipate that any changes in asset management practices flowing from this review will be incorporated in its 2025 capital budget process?

PUB-NP-019 Page 1. It is stated that Newfoundland Power's investment priorities over the next five years reflect an increased focus on the planned refurbishment of assets to extend their useful service lives. Please explain how this increased focus is

reflected in the 2024-2028 Capital Plan and if the age of the asset is being given additional weight in the planning of capital programs and projects as a result of this increased focus.

PUB-NP-020 Page 4. Figure 1 shows that the average duration of outages, excluding major events, has improved since 2004 with the average duration of outages being less each year since then. To what does Newfoundland Power attribute the improvement in its reliability performance over the period 2004 to present?

PUB-NP-021 Page 4 Figure 1. Comparisons of Newfoundland Power's reliability performance for SAIDI and SAIFI with the Canadian average for the period 2013-2022 are in Figures 2 and 3 on pages 7-8 of the Capital Budget Overview. Provide a chart that shows the comparison of Newfoundland Power's SAIDI and SAIFI performance with the Canadian average for the period 2003-2022.

PUB-NP-022 Page 6. It is stated that the while age is not a primary determinant as to whether an asset requires refurbishment or replacement, it provides a reasonable indication of the probability that an asset may begin to fail. Explain how Newfoundland Power evaluates the age of an asset as a consideration in determining whether to plan capital work on the asset. Include in the response the other factors Newfoundland Power considers in determining whether to plan capital work on an asset and how it weighs the various factors.

PUB-NP-023 Page 7. Equipment failures on the distribution system are said to have increased by 34% from 2018-2002 over the previous five-year period. It is stated that the risk of equipment failures is increasing going forward due to the age of the Newfoundland Power system. In Newfoundland Power's opinion is age the only cause of the increase in equipment failures and does the age affect the corrective measures which are taken?

PUB-NP-024 Page 7. During the period that equipment failures on the distribution system increased Newfoundland Power continued with its programs such as the Distribution Reliability Initiative targeting worst performing feeders and the Substation Refurbishment and Modernization Plan. Does the increase in equipment failures bring into question the value and usefulness of Newfoundland Power's asset management approach as failures are increasing while Newfoundland Power is continuing with asset management strategies first developed a number of years ago?

PUB-NP-025 Page 7. Does Newfoundland Power plan to include in the planned review of its asset management practices the causes of the increase in equipment failures on the distribution system and does Newfoundland Power anticipate any changes in its practices to address the increase in equipment failures that has occurred over the past five years?

1.1 Distribution Reliability Initiative

PUB-NP-026 Page 1. The Distribution Reliability Initiative has been ongoing for over 20 years. Please provide a table that shows the total expenditures to date, expenditures included in the 2024-2028 Capital Plan, the total number of feeders on Newfoundland Power's system and the number of feeders completed under this program.

PUB-NP-027 Page 1. It is stated that a new Outage Management System implemented in 2019 provides outage data with greater granularity and precision than previously which allows Newfoundland Power to identify sections of feeders that are experiencing poor performance. Has Newfoundland Power changed its approach for this program following the implementation of the new outage management system to focus on the reliability performance of a section of a feeder rather than the overall performance of the feeder? In the response, explain the criteria Newfoundland Power used to determine the appropriate section of a feeder to consider for a capital upgrade.

PUB-NP-028 Page 2. It is stated that Newfoundland Power's approach is consistent with good utility practice. Do Canadian utilities consider Customer Hours of Interruption per Kilometer (CHIKM), Customers Interrupted per Kilometer (CKIM) and section of feeder performance rather than overall feeder performance in identifying worst performing feeders? If yes, explain how other Canadian utilities consider these factors in capital budget planning for distribution feeders.

PUB-NP-029 Pages 3-9. Newfoundland Power is proposing the relocation of a 4.8 km section of Western Avalon Substation distribution feeder WAV-01 which will include construction of 6.5 km new three phase distribution line and the replacement of and installation of new poles. This project is also in Schedule B on pages 11-14. Distribution feeder WAV-01 is not listed in Appendix A to Tab 1.1 Distribution Reliability Initiative which lists the company's fifteen worst performing feeders. The reliability data on page 5 of Tab 1.1 indicates that the reliability performance of the section of WAV-01 for which a capital project is proposed is better than some of the fifteen worst performing feeders listed in Appendix A to Tab 1. Why did Newfoundland Power determine it was appropriate to proceed with this project in 2024 as opposed to another poor performing feeder?

PUB-NP-030 Page 4. The number of customers served by the section of the feeder for which the capital project is proposed for 2024 is 658. Is the number of customers served by a feeder or a section of a feeder a consideration in the evaluation of which poor performing feeders are to be addressed?

PUB-NP-031 Page 9. It is stated that the inspections have identified 51 deficiencies in the 4.8 km section of feeder WAV-01 proposed to be re-built in 2024, including 27 deteriorated poles and crossarms.

a) Provide a table that shows the total number of each of poles and crossarms on the 4.8 km section, the number of deficient or deteriorated poles in this 4.8 km section and the number of deficient or deteriorated crossarms in this 4.8 km section.
b) What would be the cost to repair the 51 deficiencies without rebuilding the 4.8 km section of feeder WAV-01?

1.2 Feeder Additions for Load Growth

PUB-NP-032 Newfoundland Power states that three feeder additions identified for upgrades in 2024 have loads ranging from 125 to 180 amps on single-phase sections of feeders as compared to its planning criteria maximum current of 85 amps on a single-phase distribution line.
a) Please explain how these current levels were able to increase to a point whereby they exceeded Newfoundland Power's planning criteria by 47% to 112%.
b) Have there been any outages caused by these elevated amperages?
c) Has Newfoundland Power considered revising its planning criteria of a maximum 85 amps on a single-phase distribution line?
d) Are there other instances of feeder overloading currently occurring on Newfoundland Power's system? If yes, list the feeders, the feeder amperage and any outages they have caused.

2.1 2024 Substation Refurbishment and Modernization

PUB-NP-033 Page 1. Newfoundland Power introduced its Substation Refurbishment and Modernization Plan as part or its 2007 Capital Budget application. Please file a copy of this plan for the record in this proceeding.

PUB-NP-034 Please provide a table that shows the total capital expenditures to date, expenditures included in the 2024-2028 Capital Plan, the total number of substations and the number of substations completed under the Substation Refurbishment and Modernization Plan since its commencement.

PUB-NP-035 What actions has Newfoundland Power taken since the Substation Refurbishment and Modernization Plan was introduced in 2007 to assess whether the execution of the plan has been effective and is consistent with good utility practice?

PUB-NP-036 Page 4. It is stated that power transformer failures can lead to extended outages for a large number of customers. Please list the number of substation power transformer failures experienced by Newfoundland Power in the last ten years, the duration of outage as a result of each failure and the number of customers affected by each outage due to a failure of a power transformer.

PUB-NP-037 Appendix D page 2. It is stated that Newfoundland Power completed an analysis which showed that ISL-T1 would have to remain in service until approximately 75

years of age to offset the added costs of completing the transformer as a separate project in the future. Please provide a copy of this analysis.

3.1 2024 Transmission Line Rebuild

PUB-NP-038 Page 1. Newfoundland Power introduced its Transmission Line Rebuild Strategy as part of its 2006 Capital Budget Application. Please file a copy of this strategy for the record in this proceeding.

PUB-NP-039 Page 1. It is stated that 85% of the Transmission Line Rebuild Strategy will be completed by the end of 2024. With the completion of the 2006 strategy approaching, does Newfoundland Power anticipate it will be necessary to develop a revised or alternative strategy for its transmission lines?

PUB-NP-040 Please provide a table that shows the total capital expenditures to date, expenditures included in the 2024-2028 Capital Plan, the total number of transmission lines and the number of transmission lines completed under the Transmission Line Rebuild Strategy since it was implemented.

PUB-NP-041 What action has Newfoundland Power taken since the Transmission Line Rebuild Strategy was introduced in 2006 to assess whether the strategy has been effective and is consistent with good utility practice?

PUB-NP-042 Page 8. It is stated that while the historical reliability performance of Transmission Line 146L has been reasonable, the sub-standard design and deteriorated condition exposes it to increased probability of failure going forward. In Newfoundland Power's opinion what weight should historical reliability performance be given in the evaluation of whether a transmission line should be upgraded or deferred or is the condition assessment the only consideration?

PUB-NP-043 Page 8. How did Newfoundland Power determine that the probability of failure for Transmission Line 146L had increased to the extent it is required to be rebuilt at this time rather than being deferred to a future year? Include in the response how Newfoundland Power quantified the increase in the probability of failure.

PUB-NP-044 Page 8. It is stated that recent analyses showed that a loss of Transmission Line 146L during peak load conditions would result in voltage levels within the looped transmission system dropping into the emergency range, increasing the risk of load shedding and customer outages. Please provide the analyses.

PUB-NP-045 Page 9. Newfoundland Power plans on rebuilding Transmission Line 146L in 2024 and 2025. It is stated that the rebuild of the line has been deferred for 15 years as a result of regular maintenance. Please provide the annual preventative and corrective maintenance expenditures carried out on this transmission line over the past fifteen years.

PUB-NP-046 Footnote 63 on page 82 of Schedule B states that there have been three outage events over the last five years to Transmission Line 146L due to requirements to undertake preventative and corrective maintenance. Please provide details on each of these three outages, including the reason for the outage, the date, duration and number of customers affected.

PUB-NP-047 In the response to CA-NP-111 filed in the 2023 Capital Budget Application proceeding, Newfoundland Power stated it was "waiting for the results of Hydro's test and treat program before determining whether a wood pole test and treatment program would have any impact on its Transmission and Maintenance Practices". Hydro filed a report on its wood pole treatment program on April 21, 2023. On June 28, 2023 Newfoundland Power filed comments on this report.

a) Please file the letter of June 28, 2023 for the record in this proceeding.
b) Newfoundland Power stated in the June 28, 2023 letter that it "has initiated discussions with Hydro and has further meetings planned with Hydro's technical and engineering staff to better understand the potential benefits of a chemical re-treatment program" for its transmission line wood poles. Newfoundland Power further advised that an assessment of its transmission line asset management practices would be included in its asset management review. Please outline the scope and schedule for the review of the potential benefits of Hydro's wood pole line management program for Newfoundland Power's wood pole transmission lines.
c) What are the factors that would be necessary to consider in assessing whether the Transmission Line Rebuild Strategy should be paused in order to reduce annual capital spending given Newfoundland Power is near the end of the program carried out under the Strategy and it is reviewing both its asset management practices and Hydro's wood pole transmission asset management practices to determine its future transmission line practices?

Hydro Plants Refurbishment and Rehabilitation

PUB-NP-048 A number of projects for hydro plants are included in the 2024 Capital Budget. Does Newfoundland Power have a plan or strategy in place, similar to those for transmission lines and substations to evaluate its hydro generation assets?

PUB-NP-049 Please provide a table that shows the total capital expenditures in the last ten years spent on hydro generation assets, expenditures included in the 2024-2028 Capital Plan for hydro plant refurbishment and rehabilitation, the number of hydro plants and the number refurbished and rehabilitated over the last ten years.

PUB-NP-050 What action has Newfoundland Power taken to asses whether its approach to the asset management of hydro plants has been effective and is consistent with good utility practice?

General

PUB-NP-051 In the Application certain individual projects are grouped together under one project over $750,000 (e.g., Applications Enhancements) while in other cases individual projects less than $750,000 which appear related are not grouped together under one project (e.g., Oxen Pond Substation projects). Please explain how and when Newfoundland Power decides to group individual projects together under one capital project for which prior Board approval is required and when they will be listed individually.

DATED at St. John's, Newfoundland this 7th day of August, 2023.

BOARD OF COMMISSIONERS OF PUBLIC UTILITIES

Per

Cheryl Blundon
Board Secretary