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NEWFOUNDLAND POWER
A FORTIS COMPANY

November 2, 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: Newfoundland and Labrador Hydro – 2026 General Rate Application

Please find enclosed the Expert Report of Mr. Larry Brockman of Brockman Consulting.The enclosed Report is provided to the Board to assist it in considering the Application.

We trust the foregoing and enclosed is found to be in order.

Yours truly,

Dominic Foley
Legal Counsel

Enclosure

ec. Shirley Walsh
Newfoundland and Labrador Hydro

Dana Constantine
Stewart McKelvey

Sheryl Nisenbaum
Linde Canada Inc.

Glen Seaborn
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IN THE MATTER OF the *Electrical Power Control Act, 1994*, SNL 1994, Chapter E-5.1 (the "*EPCA*") and the *Public Utilities Act*, RSNL 1990, Chapter P-47 (the "*Act*");

AND IN THE MATTER OF a general rate application by Newfoundland and Labrador Hydro to establish customer electricity rates for 2027.

Prefiled Evidence of

Larry Brockman

Testimony on Behalf of Newfoundland Power

Brockman Consulting

NEWFOUNDLAND POWER
A FORTIS COMPANY

At the hearing into the Newfoundland and Labrador Hydro (“Hydro”) 2026 General Rate Application, the Expert Evidence in this report will be adopted by Larry Brockman, President of Brockman Consulting based in Atlanta, Georgia.

A witness profile for Larry Brockman follows.

Larry Brockman

President of Brockman Consulting

Atlanta, Georgia

Larry Brockman has over 50 years' experience as a power system planning engineer, rate designer, regulatory staff member, and consultant. He specializes in regulatory and generation and transmission planning assistance and analysis, as well as the analysis of competitive generation markets in both the US and Canada.

Mr. Brockman has appeared before the Board of Commissioners of Public Utilities of Newfoundland and Labrador on numerous occasions as an expert witness. He has presented evidence on behalf of Newfoundland Power Inc. concerning cost of service, rate design and least cost planning in Newfoundland and Labrador Hydro's 1990, 1992, 2001, 2003, 2006, and 2013 general rate applications, as well as in Newfoundland and Labrador Hydro's 1992 generic cost of service hearing, the 1995 Rural Rate Inquiry and Newfoundland and Labrador Hydro's 2009 and 2013 Applications concerning Industrial Rates and the Rate Stabilization Plan.

Mr. Brockman has also appeared as an expert witness on cost of service and rate design on behalf of Newfoundland Power in the 1996 and 2003 Newfoundland Power general rate applications.

Mr. Brockman also provided expert evidence on behalf of Newfoundland Power in the Board's 2014 Investigation and Hearing into Supply Issues and Power Outages on the Island Interconnected System and Newfoundland and Labrador Hydro's 2013 RSP Surplus Refund Application.

Most recently, Mr. Brockman has provided expert regulatory advice on cost of service, rate design and utility planning matters, including evidence on behalf of Newfoundland Power in Hydro's 2019 Cost of Service Methodology Review. His work in that proceeding addressed Hydro's proposed cost of service methodology in advance of the recovery of Muskrat Falls Project costs.

A more detailed description of Mr. Brockman's professional background is provided as Appendix A to this evidence.

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1.0 INTRODUCTION

In 1992, the Board conducted a comprehensive review of Newfoundland and Labrador Hydro's ("Hydro") cost of service methodology (the "1992 Cost of Service Review"). I submitted expert cost of service evidence in that proceeding on behalf of Newfoundland Power Inc. ("Newfoundland Power" or "NP").[1] The Board's determinations arising from that review have, for the most part, guided Hydro's cost of service methodology since that time.

In 2006, I also submitted expert rates and cost of service evidence on behalf of Newfoundland Power in Hydro's 2006 General Rate Application.[2] That evidence addressed, among other matters, the treatment of Newfoundland Power's generation in Hydro's cost of service study. I supported continuing to recognize the value of Newfoundland Power's generation through the cost of service study and provided evidence on Hydro's proposed treatment of the Generation Credit.

In 2018, Hydro initiated another comprehensive review of its cost of service methodology to address the material changes in its supply costs associated with the Muskrat Falls Project and the interconnection of the Island Interconnected System with the North American electricity grid. I submitted expert cost of service evidence in that proceeding on behalf of Newfoundland Power on August 5, 2019.[3]

1 *Testimony of Larry Brockman*, Hydro 1992 Cost of Service Investigation, August 1992.
2 *Prefiled Evidence and Exhibits of Larry Brockman, Testimony on Behalf of Newfoundland Power,* Newfoundland and Labrador Hydro 2006 General Rate Application, October 26, 2006.
3 *Prefiled Evidence of Larry Brockman, Testimony on Behalf of Newfoundland Power,* Newfoundland and Labrador Hydro Cost of Service Methodology Review, August 5, 2019.

The 2018 cost of service proceeding ultimately resulted in a settlement agreement among the Parties, which the Board approved in Order No. P.U. 37 (2019).[4] The agreed methodology was to be used in the first General Rate Application addressing recovery of Muskrat Falls Project costs, with certain matters specifically settled and other matters identified for further review in Hydro's next GRA. This is Hydro's first GRA since the Board accepted the settlement agreement between the Parties.

One of the matters agreed upon in the settlement agreement was that Hydro should continue to provide a Generation Credit for Newfoundland Power for hydroelectric and thermal generation consistent with past practice. One of the matters that was not settled was Hydro's methodology for determining the megawatt Generation Credit provided to Newfoundland Power.[5]

On July 7, 2026, I was asked by Newfoundland Power to review Hydro's proposed changes to the treatment of Newfoundland Power's Generation Credit in Hydro's 2026 General Rate Application ("2026 GRA"). In particular, I was asked to consider the proposed method for determining the hydroelectric Generation Credit, Hydro's proposed changes to the generation testing requirements, and the continuing value that Newfoundland Power's generating facilities provide to the Island Interconnected System.

4 The settlement agreement was signed by the Parties on October 4, 2019. The Parties included Hydro, Newfoundland Power, the Consumer Advocate, the Island Industrial Customer Group, the Labrador Interconnected Group, and Board Hearing Counsel. See Order No. P.U. 37 (2019), Schedule A – Settlement Agreement, Page 1.

5 Order No. P.U. 37(2019), Schedule A, Settlement Agreement, page 4, paragraph 33.

2.0 NEWFOUNDLAND POWER'S GENERATION CREDIT

2.1 Newfoundland Power Generation

Newfoundland Power owns and operates 23 hydroelectric generating plants and six thermal generating plants. Figure 1 shows the location of those facilities in relation to the Island Interconnected System.

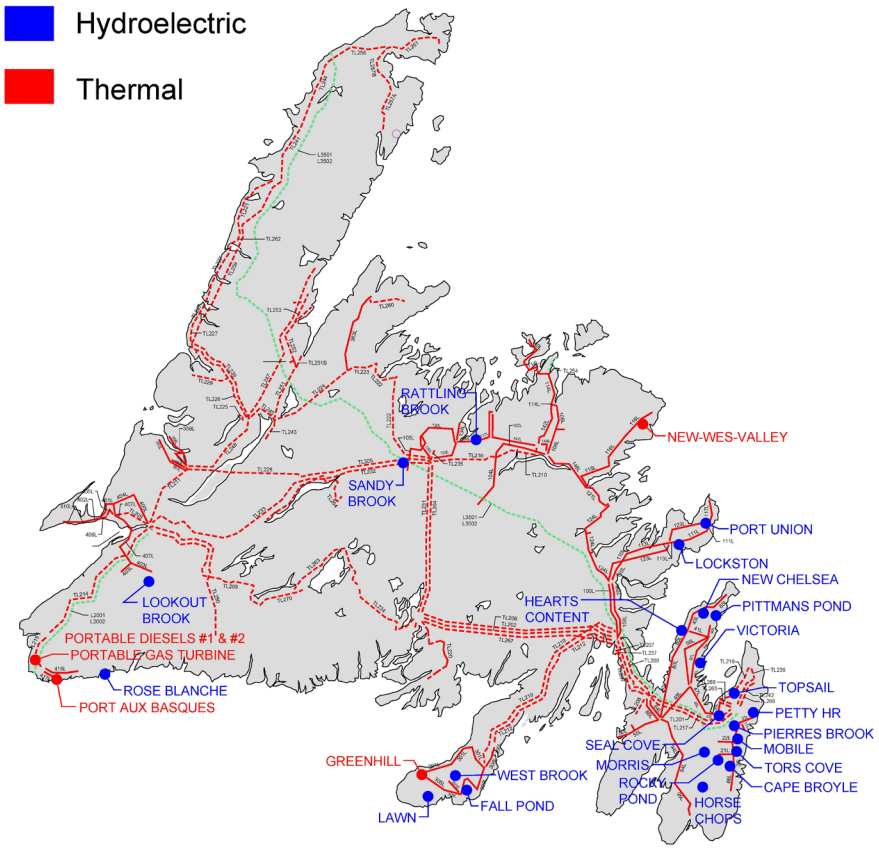


Figure 1:
Newfoundland Power Generation Plants

These facilities form part of the supply resources available to the Island Interconnected System and are broadly distributed across the Island. Hydro may request increased output from Newfoundland Power's hydroelectric or thermal

generation when required for reliability, system reserves, transmission support, equipment outages or economic dispatch.

2.2 Generation Credit Purpose

The Generation Credit provides cost-of-service recognition of the capacity contribution made by Newfoundland Power's generating facilities to the Island Interconnected System. This is not a new concept. The Board has considered the treatment of Newfoundland Power's generation in a number of previous proceedings and has recognized both its hydroelectric and thermal generation as providing capacity value to the Island Interconnected System.[6]

The current method for calculating the NP Generation Credit was described in a review for the Board from the Brattle Group in 2019 at page 58 as follows:

> *The use of the generation credit provides Newfoundland Power with an estimated coincident peak demand requirement in the cost of service study that is effectively the same as if Newfoundland Power was operating its generation at peak times (with an adjustment for reserves). The provision of the generation credit removes the incentive for Newfoundland Power to operate its thermal generation to minimize its peak demand purchases from Hydro.*
>
> *Specifically, Hydro's generation credit is in the form of a reduction in Newfoundland Power's native peak load in the cost of service study, thus reducing allocated demand costs to the Newfoundland Power class. The existing approach is described by Hydro (at 17) and consists of reducing Newfoundland Power's coincident peak demand at transmission and generation for the hydroelectric generation credit. For the thermal generation credit, it consists of reducing Newfoundland Power's coincident demand at generation.*[7]

[6] See Order Nos. P.U. 7 (2002-2003), P.U. 14 (2004), P.U. 8 (2007), and P.U. 30 (2019).

[7] The Brattle Group, Inc., *Embedded and Marginal Cost of Service Review – Amended Report*, June 27, 2019, pages 58 – 59.

The Generation Credit recognizes the capacity value provided by Newfoundland Power's generation by reducing Newfoundland Power's demand responsibility in Hydro's cost of service study. It is not a direct payment to Newfoundland Power. Rather, it affects the allocation of demand-related costs among the Island Interconnected customer classes by recognizing the capacity Newfoundland Power makes available to the system. Newfoundland Power continues to bear its allocated share of common system costs after application of the credit. In my opinion, this treatment provides reasonable recognition of the capacity value of Newfoundland Power's generation.

Hydro itself recognizes that Newfoundland Power's generation provides demand-related value.[8] In CA-NLH-139, Hydro states that when Newfoundland Power's generation is available and operating during periods when the system requires support, it reduces the demand on Hydro's system and therefore lowers the capacity requirements Hydro must otherwise serve.

2.3 Dispatch

Newfoundland Power and Hydro coordinate the operation of Newfoundland Power's generating facilities as part of the operation of the Island Interconnected System. Hydro may request Newfoundland Power generation where required for system reliability, operating requirements or economic dispatch, while Newfoundland Power remains responsible for the dispatch of its individual generating resources. Hydro's requests for Newfoundland Power generation may form part of the actions taken by Hydro's Energy

[8] CA-NLH-139.

Control Centre to maintain operating reserves and reliably operate the Island Interconnected System.[9]

The Generation Credit recognizes the capacity value associated with Newfoundland Power's generation being available to support Island Interconnected System planning and operating requirements. In actual system operations, Hydro calls upon Newfoundland Power's generation when additional generation or operational support is required. Hydro may request Newfoundland Power's hydroelectric generation for the following reasons:

- Economic dispatch (e.g., before increasing loading on Holyrood units).
- When required to support system reserves.
- Facilitating equipment outages.
- Offsetting transmission line corridor limits to ensure system operating limits ("SOLs") are not violated.[10]

The historical record confirms that Newfoundland Power's hydroelectric generation has made a meaningful contribution during periods of high Island demand. Exhibit 15 to Hydro's 2026 GRA shows that Newfoundland Power's hydroelectric generation at the annual Island system peak averaged approximately 64 MW over the five-year period

[9] PUB-NLH-177, Attachment 1, Newfoundland and Labrador Hydro, *BA-P-012 Operating Reserves*, sections 1.1–1.4.
[10] NP-NLH-105.

from 2020 through 2024.[11] Hydro has relied on this same historical experience in proposing a 64 MW hydroelectric Generation Credit in this proceeding.[12]

Hydro's Operating Reserves Procedure also identifies Newfoundland Power's generation as part of the resources used to maintain sufficient on-line regulating and 10-minute reserves. Under that procedure, Hydro requests Newfoundland Power to maximize its hydroelectric generation before standby generators are started and loaded.[13] This priority is reflected in Hydro's operating experience, with hydroelectric generation being called upon more frequently than thermal generation.[14] Hydro also includes Newfoundland Power's available hydroelectric and standby generation in its calculation of Available Reserve.[15] In my opinion, these practices demonstrate that Newfoundland Power's generation forms part of the resources Hydro relies upon to meet Island Interconnected System requirements.

Newfoundland Power's thermal generation is called upon less frequently, but this reflects Hydro's dispatch practices rather than its availability as a system resource. When system conditions permit, Hydro calls upon Newfoundland Power's hydroelectric generation first to avoid or minimize thermal generation.[16] Hydro nevertheless confirms

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11 2026 GRA, Volume III, *Exhibit 15 – Newfoundland Power Generation During Island Interconnected System Peaks*, page 4, Table 3.

12 2026 GRA, Volume I, *Section 6.2.3 Generation Credit Provided to Newfoundland Power*, pages 6.8–6.9.

13 PUB-NLH-177, Attachment 1, Hydro's BA-P-012 *Operating Reserves* Procedure, sections 1.1 and 1.1.1, pages 4-5. A request for Newfoundland Power to maximize its hydroelectric generation is Step 3; starting and loading standby generators, including Newfoundland Power units, is Step 7.

14 NP-NLH-099.

15 PUB-NLH-177, Attachment 1, Newfoundland and Labrador Hydro, *BA-P-012 Operating Reserves*, s. 1.4, 'Calculation, Assessment and Notification of Available Reserve,' p. 7.

16 CA-NLH-143(c).

that Newfoundland Power's thermal generation remains available to be called upon and proposes no change to the methodology for determining its thermal generation credit.[17]

I agree with Hydro's proposal to continue the existing methodology for determining Newfoundland Power's thermal Generation Credit. Hydro has not proposed a change to that methodology in this proceeding, and in my opinion, no change is warranted.[18] Accordingly, my concerns and recommendations regarding Hydro's proposed changes to the Generation Credit methodology relate to the hydroelectric Generation Credit and the proposed generation testing requirements, and not to the methodology used to determine the thermal Generation Credit.

In summary, the record demonstrates that Newfoundland Power's generation provides real and ongoing system value. It is included in Hydro's assessment of available system reserves and is called upon to support reserves, address transmission constraints, facilitate equipment outages and achieve economic dispatch. Most importantly, Hydro has expressly stated that the greatest value of Newfoundland Power's hydroelectric generation is supporting capacity requirements during system peak days, when reliable supply is paramount.[19] Continued recognition of Newfoundland Power's hydroelectric and thermal generation in Hydro's cost of service study is therefore supported by how those resources are actually used and valued by the system.

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17 2026 GRA, Volume I, *Section 6.2.3 Generation Credit Provided to Newfoundland Power*, pages 6.8-6.9.

18 2026 GRA, Volume I, *Section 6.2.3 Generation Credit Provided to Newfoundland Power*, pages 6.8-6.9; and PUB-NLH-176.

19 PUB-NLH-177(e).

2.4 Supply Planning

Newfoundland Power's generation capabilities are also included in Hydro's supply planning for the Island Interconnected System. NP's existing generation and future generation plans are modeled by Hydro as part of its Reliability and Resource Adequacy Proceeding.[20] Inclusion of Newfoundland Power's generation in Hydro's resource planning recognizes the contribution that this capacity can provide toward meeting Island Interconnected System requirements.

As a general planning principle, available capacity in even small amounts can affect the timing or need for future resource additions. Generation planners have long recognized this principle. John Seelke described it as the 'Value of Deferral' in his work on load control.[21] I later worked with John at Energy Management Associates, where we incorporated this concept into the PROVIEW generation planning model. The practical lesson was straightforward: even small changes in available existing capacity could alter the timing of resource additions and affect the cost of a generation expansion plan. Modern generation planning models use different optimization techniques, but the principle remains the same. Capacity that contributes toward meeting future system requirements may affect the timing or need for future resource additions and therefore can have economic value even where it does not avoid a specific generating facility on a one-for-one basis.

[20] Newfoundland and Labrador Hydro, *2024 Resource Adequacy Plan*, *Appendix B, 'Planning Criteria and Study Methodology*,' *Section 5 - Resource Adequacy Study Methodology*.

[21] John Seelke, 'Assessing the Benefits of Load Control,' IEEE Transactions on Power Apparatus and Systems, 1982.

Inclusion of Newfoundland Power's generation capability in Hydro's planning processes is consistent with that generation having value in meeting Island Interconnected System requirements.

2.5 Testing NP's Units

Newfoundland Power's generation capability has historically been demonstrated through a combined test of its hydroelectric and thermal generation. During the test, Newfoundland Power operates its hydroelectric and thermal generation at the same time to demonstrate its total generation capability.

This approach is consistent with the treatment considered in Hydro's 2006 General Rate Application. In that proceeding, Stone and Webster recommended that Hydro's costing and billing continue to reflect a set credit for Newfoundland Power's hydroelectric generation, together with Newfoundland Power's obligation to demonstrate the capability of its combined hydroelectric and thermal generation.[22] I agreed at the time that Hydro's costing and billing should continue to recognize Newfoundland Power's hydroelectric and thermal generation, and my evidence also described the existing combined generation testing requirement.[23]

[22] The Stone and Webster Management Consultants, Inc. review was undertaken pursuant to Board Order No. P.U. 14 (2004), which directed Hydro to commission an independent study of the treatment of Newfoundland Power's generation, including its value to the system and how it should be accounted for operationally and financially.

[23] *Prefiled Evidence and Exhibits of Larry Brockman, Testimony on Behalf of Newfoundland Power*, Newfoundland and Labrador Hydro 2006 General Rate Application, October 26, 2006, pages 11-12.

Although the test is conducted on a combined basis, the output of the hydroelectric and thermal generation is separately available. The historical test records report the output by generating unit. Hydro has also confirmed that the readings required for the hydroelectric and thermal components can be obtained during a single testing period.[24] The existing test therefore demonstrates Newfoundland Power's total generation capability while also providing Hydro with the information necessary to determine the output of each component.

3.0 HYDRO'S 2026 GRA PROPOSALS

3.1 Changes to Generation Credit

Hydro proposes to change the hydroelectric Generation Credit from the previous reserve-at-criteria methodology to a credit based on Newfoundland Power's historical hydroelectric generation during Island system peak conditions.[25] For the 2027 Test Year, Hydro proposes a 64 MW hydroelectric credit based on the average of the 2020 through 2024 historical observations.

As a component of Hydro's cost-of-service methodology, the hydroelectric Generation Credit is reflected in the allocation of costs in Hydro's Cost of Service Study and in the Utility Rate charged to Newfoundland Power. The Generation Credit established in this proceeding would remain unchanged for rate-setting purposes until Hydro's next GRA, for which Hydro has proposed a 2031 rate-setting year.[26] Hydro has stated that it will complete the calculation annually and that, should future performance improve beyond

[24] NP-NLH-166; NP-NLH-167; and NP-NLH-168, Attachment 1.
[25] 2026 GRA, Volume I, *Section 6.2.3 Generation Credit Provided to Newfoundland Power*, pages 6.8-6.9.
[26] *2026 GRA, Volume I, Chapter 6 – Rates and Regulations*, Page 6.27, Footnote 46.

the recommended Generation Credit, the improvement will be captured in Hydro's next GRA.[27]

Hydro's rationale for the change in the hydroelectric Generation Credit is that actual historical hydroelectric generation better reflects the capacity that Newfoundland Power can provide during Island system peak conditions, particularly given the variability associated with hydroelectric generation.[28]

This is particularly relevant in this case because the operating experience that will develop after implementation of the new methodology may differ from the historical period used to establish the 64 MW credit. Hydro has acknowledged that the winter of 2027–2028 will be the first opportunity for Newfoundland Power to maximize its hydroelectric generation during periods of high demand when requested by Hydro under the proposed methodology. Hydro has also stated that the use of Newfoundland Power's hydroelectric generation to manage regional transmission constraints has recently lessened.[29] The operating experience developed under these changed circumstances, together with the results of the existing combined Generation Test, will therefore provide relevant information for reviewing both the Generation Credit and the testing requirements at Hydro's next GRA.

27 PUB-NLH-175.
28 2026 GRA, Volume I, *Section 6.2.3 Generation Credit Provided to Newfoundland Power*, pages 6.8–6.9.
29 NP-NLH-106. See NP-NLH-172, Table 1 for the number of requests from Hydro to maximize hydraulic generation from January 2020 to March 2026.

In my opinion, it is appropriate to consider the proposed change to the Generation Credit together with Hydro's proposed change to the generation testing requirements. As discussed in the following section, I consider the proposed 64 MW hydroelectric Generation Credit reasonable for purposes of this GRA, provided the existing combined Generation Test is retained until Hydro's next GRA.

3.2 Changes to Generation Test

Hydro proposes to change the existing generation test by assessing Newfoundland Power's hydroelectric and thermal generation separately during the initial test, although the two components may still be tested in succession during a single testing period. Hydro states that this change is required to confirm that each component can meet the level for which Newfoundland Power receives a Generation Credit and therefore can be relied upon.[30]

If Newfoundland Power does not demonstrate the required level for either component during the initial test, it is provided a second opportunity to demonstrate its generation capability. Importantly, however, Hydro does not apply the same component-specific requirement to the second test. Hydro states that the second test is based on the total generation level sustained and that Newfoundland Power will receive the full Generation Credit if it meets the overall generation requirement, regardless of the relative contribution of its hydroelectric and thermal generation.[31]

[30] 2026 GRA, Volume III, *Exhibit 20 – Proposed Revision to Schedule of Rates, Rules and Regulations – Utility Definitions*, page 1; NP-NLH-099.
[31] NP-NLH-101; see also NP-NLH-169.

In my opinion, this makes Hydro's proposed change difficult to justify. Hydro would require the hydroelectric and thermal components to meet separate requirements in the first test, but would accept the combined output of those same resources in the second test. If total generation capability is sufficient to demonstrate eligibility for the Generation Credit in the second test, I do not see why essentially the same demonstration should be insufficient in the first test.

There is also a broader ratemaking consideration. Generally accepted principles of sound ratemaking recognize that stability, predictability and gradualism are relevant considerations when changes to established regulatory arrangements are being considered. In my previous evidence before this Board, I have observed that good rate design requires a balancing of a number of considerations, including stability, gradualism, customer impacts and predictability.[32] In my opinion, those principles are relevant here. Hydro is already proposing a material change in the methodology used to determine Newfoundland Power's hydroelectric Generation Credit. Where Hydro has not demonstrated that a corresponding change to the generation test is necessary for reliability, I see no regulatory advantage in changing both the credit methodology and the testing methodology at the same time. A more measured approach would allow the revised Generation Credit methodology to operate with the existing test before introducing a further change to the manner in which Newfoundland Power demonstrates its generation capability.

[32] James C. Bonbright, Albert L. Danielsen and David R. Kamerschen, *Principles of Public Utility Rates*, 2nd ed. (Public Utilities Reports, Inc., 1988), pages 382–384; Prefiled Evidence and Exhibits of Larry Brockman, Testimony on Behalf of Newfoundland Power, Newfoundland and Labrador Hydro 2006 General Rate Application, October 26, 2006, p. 5.

There is another practical consideration. As discussed earlier, Hydro can determine the output of Newfoundland Power's hydroelectric and thermal generation during the existing combined test. The historical test records already report generation by unit, and Hydro has confirmed that the readings for the two components can be obtained during a single testing period.[33] Hydro therefore does not need a different test to determine how much each component produced.

Hydro also points to the different methodologies used to determine the hydroelectric and thermal Generation Credits as a reason for changing the generation test.[34] I do not find that persuasive. The method used to calculate the amount of a Generation Credit and the test used to demonstrate the availability of Newfoundland Power's generation are different questions. Hydro's proposed hydroelectric Generation Credit can be implemented using historical hydroelectric generation during Island system peaks without changing the existing generation test.[35] The annual test can continue to demonstrate Newfoundland Power's generation capability, while the individual unit readings provide Hydro with the component-specific information it requires.

I am not suggesting that the existing test should continue simply because it has been used for many years. If there is evidence that the existing test no longer demonstrates what Hydro requires for system reliability, then the testing methodology should be reconsidered. However, Hydro has not undertaken a fulsome industry-practice analysis

[33] NP-NLH-166; NP-NLH-167; NP-NLH-168, Attachment 1.
[34] NP-NLH-099.
[35] 2026 GRA, Volume I, *Section 6.2.3 Generation Credit Provided to Newfoundland Power*, pages 6.8-6.9.

supporting its proposed methodology and has stated that its proposal reflects its operational experience and its assessment of an appropriate approach in this proceeding.[36]

In my opinion, Hydro has not demonstrated that the proposed change is necessary at this time. The more reasonable approach is to implement the revised hydroelectric Generation Credit while continuing the existing combined generation test until Hydro's next general rate application. This would allow actual experience to develop under the revised Generation Credit methodology while preserving an annual demonstration of Newfoundland Power's generation capability. At Hydro's next GRA, the Board would then have the benefit of both the additional peak-period observations used under Hydro's revised methodology and the results of the annual generation tests before determining whether either the Generation Credit methodology or the testing methodology should be changed.[37] I therefore recommend that the existing combined generation test be retained until Hydro's next general rate application.

[36] NP-NLH-171.
[37] NP-NLH-169.

4.0 CONCLUSION AND RECOMMENDATIONS

Based on my review, I have reached the following conclusions and recommendations:

1. Newfoundland Power's hydroelectric and thermal generation provides capacity and operational value to the Island Interconnected System. The Generation Credit should therefore be retained.

2. Hydro's proposal to continue the existing methodology for determining the thermal Generation Credit is reasonable and should be approved.

3. For purposes of this GRA, the most recent five-year average and resulting 64 MW hydroelectric Generation Credit provide a reasonable basis for determining Newfoundland Power's hydroelectric Generation Credit, provided the existing combined Generation Test is retained until Hydro's next GRA.

4. Consistent with the recommendation above, the existing combined Generation Test should be retained until Hydro's next GRA. The output of the individual generating units can be identified during the existing combined test, and Hydro's proposed second test ultimately recognizes total generation capability. Retaining the existing test while experience develops under the revised hydroelectric Generation Credit methodology provides a reasonable and measured approach. At Hydro's next GRA, the Board will have the benefit of additional operating experience and annual Generation Test results when considering whether changes to the Generation Credit methodology or the testing requirements are warranted.

These recommendations preserve the purpose of the Generation Credit, recognize the variability of Newfoundland Power's hydroelectric generation and avoid changing a long-standing testing arrangement before the necessity and practical consequences of that change have been adequately demonstrated.

APPENDIX A – LARRY B. BROCKMAN RESUME

President, Brockman Consulting

Qualifications Summary

Mr. Brockman has over 50 years' experience as a utility rate designer, planner, consultant, regulator, educator, and expert witness. He specializes in cost of service and rate design, strategic planning, regulatory assistance, competitive market assessments, bid evaluation processes, merger and acquisition analysis, and computer simulation, to help utilities meet their strategic goals and maintain competitive advantage.

Education

Mr. Brockman earned a bachelor's degree in engineering from the University of Florida in 1973. He subsequently completed 35 quarter-hours towards a master's degree in electrical engineering, with a minor in regulatory economics at the University of Florida.

Prior Experience

During his career, Mr. Brockman has performed, and managed a broad range of consulting projects, including:

Cost of Service and Rate Design

Numerous Cost of service and Rate Design projects for Canadian and US utilities, assisting the utilities with marginal and embedded cost-of-service and rate designs for their ability to meet the utilities' strategic and regulatory goals, and pass regulatory scrutiny. In many of these examinations, Mr. Brockman has appeared as an expert witness. These cases are delineated in the Appendix.

Co-Developer and Instructor of the Public Utilities Reports, industry short course on Rates and Regulation for 5 years. In these courses, Mr. Brockman taught hundreds of utility rate designers, regulators, attorneys and Commission staff the principles of rate design and regulation.

Review of a restructured utility's shared services costs of service separation study to allocate the costs between regulated and unregulated subsidiaries, and procedures for tracking the costs in the future.

Financial Analysis and Asset Valuation

Construction of detailed utility financial simulation models to forecast regional bulk-power prices and profits for Utilities and Independent Power Producers to judge market entry positions and create successful negotiating strategies for purchases and sales in unregulated generation markets.

A profitability study for an electric utility to assess effects on shareholder returns and economic value added (EVA) of various marketing activities of the utility. These studies resulted in re-engineering the marketing department to yield higher returns and be more consistent with corporate goals.

Several asset valuation studies for electric utilities to determine whether a market existed to sell existing generating assets, what they were worth, and whether they would be competitive with existing and new generation in the region. Results were presented to senior management and used to revise the strategic planning direction.

Competitive Market Assessments
Expert testimony to the Arkansas and Louisiana Public Service Commissions on the market clearing prices for generation in a competitive market, and the relative competitive positions of many of the generating companies in the SPP and ERCOT regions. To perform this work, Mr. Brockman used sophisticated computer models and a database containing over 120,000 MW of capacity in the region.

A study on the effects of retail competition on the states of North and South Carolina, presented to the South Carolina Legislature and performed for Carolina Power and Light Company. The study required research on the behavior of prices in other formerly regulated industries and detailed modeling of the market prices and financial effects on the utilities, as well as the effects on state and local taxes.

An independent review of the effectiveness and reliability of a large Mid-Western utility's Power Marketing and Purchases Department in deregulated generation markets, performed as a joint project with the utility and the state's attorney general.

Numerous market outlook and generator profitability studies of the ERCOT, Eastern Interconnect, and WSCC markets for merchant plant developers, using the GEMAPS transmission-constrained production cost simulation tool.

An analysis for a large Canadian utility of the profitability of increased transmission line investments to move power into various competitive markets in the US and Canada.

Computer Simulation of Power Systems
Mr. Brockman is an expert in the use of utility simulation software for: planning; operations; and financial analysis including: PROMOD; PROVIEW; PROSCREEN II; PMDAM; PROSYM; EVALUATOR; GEMAPS, IREMM, and several Power Flow programs.

Strategic Planning
A strategic planning project for a large South-Eastern electric utility identifying strengths, weaknesses, opportunities, and threats, in competitive open-access power markets. For each utility in the region, the project identified which customers would be gained and lost, and assessed the impacts of alternative transmission, and contracting strategies. The entire South Eastern US generating and major transmission systems were simulated. Over $1.5 Billion of potential customer revenue migration was identified at the client utility. Strategies for maintaining the utility’s profitability were recommended and accepted by senior management.

Development of several successful strategies and power supply bid evaluation procedures in use at investor-owned and rural electric cooperatives, to ensure that winning bids are consistent with the utility's business goals and objectives.

Operational Studies
A salt dome natural gas storage study for a South Central electric utility. The study identified the hourly operational characteristics necessary for favorable economics of the required storage facility. Estimated savings in excess of $100 Million were identified. The facility was constructed and has been successfully benchmarked against the study results.

Merger and Acquisition Analysis
Mr. Brockman has participated in several merger and acquisition studies assessing the production cost and planning and operational synergies arising from the merger. He testified before the FERC on the accuracy and appropriateness of the production costing computer simulations a merger application. He also participated in a regulated/non-regulated cost separation study for a shared services group of a major utility.

Expert Litigation Assistance
Project manager of an antitrust case involving investigation of all phases of power supply planning covering a 40-year historical period and a successful defense against an over $3 Billion damage suit involving alleged actions by an investor owned utility.

Managed a successful defense against a co-generator seeking to convince regulators that a utility's ratepayers should pay over $1.5 Billion in unnecessary and uneconomic new generation avoided costs.

Project manager for a precedent-setting FERC case defending a utility from an attempt to abrogate a long-term bulk power contract worth over $400 Million. Mr. Brockman's team was able to convince the FERC that contract abrogation was not in the public interest, that the plaintiff was not going bankrupt, and that the plaintiff's difficulties were the result of arbitrary and capricious state regulation.

Co-authored an investigation comparing the Prudence of the Georgia Power Vogtle Nuclear Units 3 and 4 with the South Carolina Summer units in 2016.

Prior Positions Held
Managing Consultant PA Consulting, 2000-2002. Mr. Brockman managed a group of consultants engaged in the analysis of transmission-constrained competitive generation markets, as well as managing several litigation cases involving electric utilities.

President of Brockman Consulting 1997-2000. Mr. Brockman assisted clients with strategic planning and regulatory assistance.

Managing Director and Vice President 1994-1996, EDS Management Consulting Services (formerly EMA). Responsible for the Atlanta consulting office, engaged in

providing technical consulting services in planning, regulatory assistance, marketing, competitive assessments, reliability, bid evaluation, financial simulation, and expert testimony.

Vice President Energy Management Associates (EMA) Consulting Department 1985-1994. Started as lead consultant and rose to position of Vice President. Marketed and provided strategic planning, regulatory assistance, and operational consulting to electric and gas utilities worldwide.

Assistant Director Electric and Gas Department, Florida Public Service Commission 1981-1985. Supervised 48 employees engaged in all phases of electric and gas regulation. Made recommendations to the Commission on rate cases and resource planning dockets for all electric and gas utilities in Florida. Responsible for financial and management audit scopes, prudence reviews of rate base, expenses, revenue requirements, and final rate design. Also advised Commission on economic effects of regulatory and energy policy actions.

Corporate Planning Engineer 1979-1981, Gainesville Regional Utilities. Developed, analyzed, and presented to senior management and the City Council, ideas, plans, and studies affecting the growth, financial well-being and efficient operation of the city-owned electric system. Performed detailed simulations and studies of new substations, transmission lines, voltage conversions, re-conductoring, and power factor correction. Mr. Brockman conducted public hearings and testified before the City Council on proposed transmission lines, substations, and rate designs.

Special Consultant 1979-1980, University of Florida Public Utilities Research Center. Under a grant from Florida Power Corporation and the Florida Public Service Commission, performed a detailed review of marginal cost study techniques for electric utilities and completed a marginal cost study for Florida Power Corporation.

Transmission Planning Engineer 1973-1976, Jacksonville Electric Authority. Responsible for bulk transmission planning, including extensive use of power-flow, fault current and transient stability computer programs. Chairman of the Florida Electric Coordinating Group's Long Range Transmission Planning Task Force 1974.

Adjunct Faculty Member 1976, University of North Florida. Taught courses in industrial and commercial building wiring design and conformance with National Electrical Codes.

Expert Witness Appearances

City of Gainesville City Council, 1980, testified on behalf of Gainesville Regional Utilities concerning a joint utility and citizen's collaborative effort on cost of service and rate design.

City of Gainesville City Council, 1981, developed and testified on a Long-Range Transmission and Distribution Plan and proposals to construct a new substation.

Florida Public Service Commission, Florida Power and Light, 1981 Docket No. 810002, Rate Case, testified on cost-of-service.

City of Tallahassee - Surcharge Outside the City Limits, 1983. Testified concerning marginal and embedded costs inside and outside the city limits.

Florida Public Service Commission, 1988, West Florida Natural Gas Company. Testified on cost-of-service and rate design and why the utility needed flexibility to meet competition.

Oklahoma Corporation Commission, 1988, Avoided Cost Proceeding. Testified on the appropriate use of computer models to determine avoided cost of generation.

Nova Scotia Board of Commissioners of Public Utilities, 1989, Nova Scotia Power Rate Case. Testified on cost of service and rate design.

Nova Scotia Board of Commissioners of Public Utilities, 1990, Nova Scotia Power Rate Case. Testified on integrated resource planning, cost of service and rate design.

Nova Scotia Board of Commissioners of Public Utilities, 1993, Nova Scotia Power Rate Case. Testified on cost of service and rate design.

Board of Commissioners of Public Utilities of the Province of Newfoundland and Labrador, 1990 Newfoundland and Labrador Hydro rate case. Testified on integrated resource planning and rate design.

Board of Commissioners of Public Utilities of the Province of Newfoundland and Labrador, 1992, Newfoundland and Labrador Hydro rate case. Testified on Cost of Service and Rate Design.

Board of Commissioners of Public Utilities of the Province of Newfoundland and Labrador, 1992, Generic Hearing on Cost of Service and Rate Design.

Board of Commissioners of Public Utilities of the Province of Newfoundland and Labrador, 1995, In the Matter of an Inquiry into Issues Relating to Rural Rate Subsidies.

Public Service Commission Colorado, 1994, testified on behalf of Public Service Company of Colorado on the proper use of dynamic programming models in the utility's integrated resource planning process.

Federal Energy Regulatory Commission, 1994, Merger Case, Testified on behalf of Central and Southwest utility concerning production cost merger benefits.

Nova Scotia Board of Commissioners of Public Utilities, 1995, Nova Scotia Power Rate Case. Testified on cost of service and rate design.

Board of Commissioners of Public Utilities of the Province of Newfoundland and Labrador, 1996, Newfoundland Power Rate Case, testified on cost of service and rate design.

Arkansas Public Service Commission, 1997, Arkansas Power and Light Rate Case, testified concerning the market clearing prices for power in deregulated markets and the relative competitive positions of various generators in such markets.

Board of Commissioners of Public Utilities of the Province of Newfoundland and Labrador, 2001, Newfoundland and Labrador Hydro rate case, on behalf of Newfoundland Power concerning Cost of Service and Rate Design.

Board of Commissioners of Public Utilities of the Province of Newfoundland and Labrador, 2003, Newfoundland and Labrador Hydro rate case, on behalf of Newfoundland Power concerning rate design and marginal costs.

Board of Commissioners of Public Utilities of the Province of Newfoundland and Labrador, 2003, Newfoundland Power rate case, concerning Cost of Service and Rate Design.

North Carolina Docket No. E-22, Sub 412. Draft testimony on behalf of Dominion North Carolina, February 2005, concerning rates to a large steel company. Case was settled before final evidence was submitted.

Board of Commissioners of Public Utilities of the Province of Newfoundland and Labrador, 2006, Newfoundland and Labrador Hydro rate case, on behalf of Newfoundland Power concerning rate design and marginal costs.

Board of Commissioners of Public Utilities of the Province of Newfoundland and Labrador, 2009, on behalf of Newfoundland Power concerning Newfoundland and Labrador Hydro's Industrial Rates.

Board of Commissioners of Public Utilities of the Province of Newfoundland and Labrador, 2014, on behalf of Newfoundland Power concerning Newfoundland and Labrador Hydro's proposal for a refund of the Newfoundland Power RSP Surplus.

Board of Commissioners of Public Utilities of the Province of Newfoundland and Labrador, 2014 Investigation and Hearing into Supply Issues and Power Outages on the Island Interconnected System, on behalf of Newfoundland Power.

Board of Commissioners of Public Utilities of the Province of Newfoundland and Labrador, 2019, Newfoundland and Labrador Hydro Cost of Service Methodology Review, on behalf of Newfoundland Power concerning cost of service methodology.

Clients Mr. Brockman has Performed Consulting Services for Include:

Ahlstrom Pyro Power

Alabama Electric Cooperative

Alberta Power Company

Balch and Bingham

Black and Veatch

California Energy Commission

Carolina Power and Light Company

Central and Southwest Company

Central Vermont Power Company

Chugach Electric Cooperative

Cincinnati Gas and Electric Company

Citibank

Commonwealth Edison Company

Duke Power Company

Enron

Entergy

Florida Public Service Commission

Georgia Power Company

Gainesville Gas Company

Hawaiian Electric Company

Howery and Simon

Hydro One

McKinsey and Company

Mission Energy

Nevada Power Company

New Brunswick Power Company

New York State Electric and Gas

Newfoundland Power

Niagara Mohawk

Nova Scotia Power Company

Oklahoma Gas and Electric Company

Ontario Power Generation

Pacific Gas and Electric Company

Public Service Company of Colorado

Public Service Company of New Mexico

Rochester Gas and Electric

SCANA

Southern California Edison

Tampa Electric Company

The City of Austin

The Southern Company

TransEnergie

West Florida Natural Gas Company

The World Bank