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November 26, 2024

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

Attention: Jo-Anne Galarneau

**Executive Director and Board Secretary** 

Re: 2025 Capital Budget Application – Hydro's Final Written Submission

Newfoundland and Labrador Hydro ("Hydro") filed its 2025 Capital Budget Application ("CBA") with the Board of Commissioners of Public Utilities ("Board") on July 16, 2024, seeking approval of \$135.7 million in capital expenditures for 2025. In that filing, Hydro also sought approval of its 2023 average rate base in the amount of \$2,329,352,000.

### **Legislative Framework**

Section 37 of the *Public Utilities Act* ("Act") requires Hydro to provide electrical service and facilities that are reasonably safe and adequate and just and reasonable. Section 41 of the *Act* requires Hydro to obtain approval from the Board for its annual capital budget. In addition, section 3 of the *Electrical Power Control Act, 1994* ("EPCA") requires that Hydro provide electrical service that is efficient, that allows for its customers to have equitable access to an adequate supply of power, and that is provided at the lowest possible cost in an environmentally responsible manner consistent with reliable service.

Hydro submits that the projects included in its 2025 CBA are required to meet Hydro's obligations under the *Act* and the *EPCA*. Hydro further submits—and will discuss in more detail herein—that all projects proposed in the 2025 CBA are justified through the inclusion of all necessary and applicable evidence.

## **Cost Management**

Hydro strives to operate in a manner that results in power being delivered to consumers at the lowest possible cost in an environmentally responsible manner consistent with reliable service. Cost management is an area of focus within all stages of Hydro's capital program, including planning, capital budget proposals, and execution. In its aim to balance the provision of reliable service with cost management and environmental considerations, Hydro focuses on sound utility asset management practices, condition-based investments (versus age-based investments) where appropriate, and operational and system requirements.

Hydro also seeks to engage with stakeholders and customers to inform its capital investment considerations. As part of the ongoing *Reliability and Resource Adequacy Study Review* proceeding, Hydro conducted a digital engagement process, finding that customers largely prioritize the lowest impact on electricity rates rather than other factors.<sup>2</sup> Hydro is mindful of this concern as it continues

<sup>&</sup>lt;sup>1</sup> "2025 Capital Budget Application," Newfoundland and Labrador Hydro, July 16, 2024.

<sup>&</sup>lt;sup>2</sup> "2024 Resource Adequacy Plan – An Update to the Reliability and Resource Adequacy Study," Newfoundland and Labrador Hydro, rev. August 26, 2024 (originally filed July 9, 2024), 2024 Resource Plan Overview, sec. 1.0, pp. 1–2.

asset management planning and has applied these practices, particularly in recent years, to work toward reduced investment to the minimum prudent capital level to not compromise customer reliability, safety, or the environment.

As in previous years, Hydro evaluated each project to determine whether deferral was an option, in light of the condition of the asset and its criticality to the system. Hydro's review of the proposals originally planned to commence in 2025 resulted in the deferral of capital expenditures totalling approximately \$13.5 million.<sup>3</sup> Where deferral of a program or project is determined to be low risk, that option is selected in an effort to balance the cost impact to customers with the level of reliability required.

Upon further assessment of planned capital expenditures, Hydro also cancelled capital projects or programs totalling approximately \$4.8 million.<sup>4</sup>

#### **Intervenor Written Submissions**

Hydro notes that Newfoundland Power Inc. ("Newfoundland Power") and the Consumer Advocate filed submissions; no submissions were received from the Island Industrial Customer Group or the Labrador Interconnected Group. Newfoundland Power advised that it does not object to any of the capital expenditures proposed in Hydro's 2025 CBA. Similarly, the Consumer Advocate did not oppose the specific capital expenditures detailed in the 2025 CBA for which Hydro requested approval; however, the Consumer Advocate detailed five points of specific concern for the Board's consideration. Hydro's reply to issues raised by the Consumer Advocate is provided herein.

The five areas the Consumer Advocate detailed for the Board's consideration were as follows:5

- 1) Finalization of the Provisional CBA Guidelines;<sup>6</sup>
- 2) Project execution improvement;
- **3)** The need for improved estimates;
- 4) Metering; and
- 5) Falling behind other provinces.

# Finalization of the Provisional CBA Guidelines

The Consumer Advocate's comments on this area were similar to those presented in their submission on Hydro's 2024 CBA and reference Hydro's work to improve its asset management practices. As the finalization of the CBA Guidelines is underway in a process separate from the 2025 CBA, Hydro does not have any further response regarding these guidelines as part of this proceeding. Hydro's actions to improve its asset management, as noted in Hydro's response to CA-NLH-026 of this proceeding, are not directly driven by the requirements set out in the Provisional CBA Guidelines. Hydro continues to work towards improving asset management as detailed in the response to request for information noted above.

<sup>&</sup>lt;sup>3</sup> A listing of deferred proposals is provided in the "2025 Capital Budget Application," Newfoundland and Labrador Hydro, July 16, 2024, sch. 1, p. 22, Table 6.

<sup>&</sup>lt;sup>4</sup> A listing of cancelled proposals is provided in "2025 Capital Budget Application," Newfoundland and Labrador Hydro, July 16, 2024, sch. 1, p. 23, Table 7.

<sup>&</sup>lt;sup>5</sup> "Newfoundland and Labrador Hydro – 2025 Capital Budget Application," Office of the Consumer Advocate, November 19, 2024.

<sup>&</sup>lt;sup>6</sup> "Capital Budget Application Guidelines (Provisional)," Board of Commissioners of Public Utilities, January 2022.

### **Project Execution Improvement**

The Consumer Advocate's submission for Hydro's 2025 CBA, similar to that provided in their submission on Hydro's 2024 CBA, expressed concern with Hydro's project execution practices, particularly as they relate to capital expenditure carryover and the perceived impact of carryover on system reliability. The Consumer Advocate requested that the Board ". . . encourage Hydro to address project execution issues to ensure that customers are not confronted with widespread power outages."

As described by Hydro in its response to CA-NLH-060 of this proceeding, Hydro utilizes established project management practices and procedures to monitor, control, and manage the carryover of work each year. The causal factors of capital expenditure carryover are varied and must be considered when assessing the impact of carryover on system reliability. A portion of carryover work is strategic, in which Hydro can execute work in the originally planned year but intentionally carries over the work due to changes in the required timing of the project. Hydro utilizes an established project change management process to facilitate decisions when contemplating the strategic carryover of work. A portion of carryover results from external risk events over which Hydro has little or no control. A further portion of carryover results from internal risk events such as resource constraints and equipment outages to enable the work. The Board, in Order No. P.U. 35(2023), noted that:

... carryovers are an inevitable part of any capital program and good planning and oversight are critical to provide for well managed capital execution to minimize cost escalation and impacts on subsequent year project execution.<sup>8</sup>

Hydro's response to CA-NLH-060 referenced Hydro's 2023 Capital Expenditures Report, which summarized Hydro's analysis of 2023 capital expenditures. The two main themes related to carryover identified were supply chain challenges and strategic carryover of work to future years. Hydro continues to review its capital budget planning and execution methodologies and use its expenditures analysis to identify opportunities that may contribute to a carryover. Hydro does not anticipate that carryover work will continue to compound in future years. Hydro's experience is that the total carryover amount varies from year to year in an unpredictable manner consistent with the inherent randomness of risk events. Years with high carryover are not always followed by more years with high carryover, as can be seen in Hydro's 2024 Capital Expenditures Overview.<sup>10</sup>

In evaluating carryover and the deferral of project completion, whether within or outside of Hydro's control, Hydro evaluates the risks associated with deferral and project carryover and applies mitigations where necessary and appropriate; as such, Hydro has been successful in minimizing the impacts of carryover on system reliability. As part of its annual work planning cycle, in the early part of the calendar year, Hydro determines the risk associated with a one-year delay in completing each capital program and project work scope. This allows Hydro to minimize the risk of carryover if constraints prevent Hydro from executing all planned work. Hydro utilizes an established project change management process to identify the impacts of carryover and to develop temporary mitigation plans to reduce the impact where possible until the work can be completed. As such, none of the projects or programs carried over into

<sup>&</sup>lt;sup>7</sup> "Newfoundland and Labrador Hydro – 2025 Capital Budget Application," Office of the Consumer Advocate, November 19, 2024, p. 3.

<sup>&</sup>lt;sup>8</sup> Board Order No. P.U. 35(2023), p. 14/5–7.

<sup>&</sup>lt;sup>9</sup> "2025 Capital Budget Application," Newfoundland and Labrador Hydro, July 16, 2024, sch. 5, app. B, sec. 1.3, p. B-9/11.

<sup>&</sup>lt;sup>10</sup> "2025 Capital Budget Application," Newfoundland and Labrador Hydro, July 16, 2024, sch. 5, app. B, sec. 7.0, p. B-53, Chart 20.

2024 represent a significant risk to the supply of electricity to customers. Hydro closely monitors the execution of its Capital Plan and will continue to prioritize projects to maximize reliability.

### The Need for Improved Estimates

The Consumer Advocate expressed concern regarding the accuracy of Hydro's cost estimation processes, as a result of Hydro's recent application to the Board for approval of the increased estimated cost of the Section Replacement and Weld Refurbishment for Bay d'Espoir Hydroelectric Generating Facility Penstock 1. The Consumer Advocate stated their belief that the cost estimation process for Hydro's capital budget proposals for existing assets should be scrutinized and improved in the same manner that Hydro has communicated within the *Reliability and Resource Adequacy Study Review* proceeding is being done for major projects.

The increased estimated cost of the Section Replacement and Weld Refurbishment for the Bay d'Espoir Hydroelectric Generating Facility Penstock 1 project were for reasons specific to that particular project, including higher-than-anticipated contract pricing. Hydro noted in its response to CA-NLH-055 of this proceeding, that a number of 2024 projects and programs are forecast to exceed their budgets due to contract pricing that is higher than the original budget estimate. While Hydro continues to experience elevated contract costs, Hydro is unable to speculate on the permanency of the increase in such costs going forward.

In its response to CA-NLH-029 of this proceeding, Hydro explained that the upper range (+30%) of its estimate accuracy range is consistent with the American Association for Advancement of Cost Engineering ("AACE") Class 3 estimate, which is the degree of accuracy typically required for budgetary authorization or control. The lower range of Hydro's estimate accuracy range (-40%), is within the range of accuracy expected for an AACE Class 5 estimate, which is the degree of accuracy typically required for concept screening. Hydro continues to utilize historical capital expenditures and experience, combined with front-end engineering design, vendor quotes and contractor quotes, to develop future capital budget estimates. Due to the timing of activities necessary for the completion of the current year's capital budget cycle, Hydro is unable to fully incorporate lessons learned from the immediately previous execution season. However, the lessons learned from previous capital budget cycles are utilized in the development of subsequent CBAs.

# Metering

The Consumer Advocate reiterated their support for, and belief in, the importance of implementation of smart meters and expressed concern that Newfoundland and Labrador is falling behind other jurisdictions in incorporating that technology. The Consumer Advocate suggested that the Board should only approve Hydro's request for approval of expenditure in 2025 for the Replace Metering System project, on the condition that the funds be used for smart meters as recommended by Util-Assist Inc.

Hydro's request is specifically for the replacement of manually-read meters and TS1 meters with a drive-by automatic meter reading ("AMR") system; the project was originally proposed in Hydro's 2022 CBA and approved by the Board in Order No. P.U. 37(2021). As Hydro described in its response to CA-NLH-058 of this proceeding, Hydro considered smart metering as an alternative in the initial cost-benefit analysis presented in the Replace Metering System Project proposal in the 2022 CBA. At that time, the least-cost solution was determined to be a drive-by AMR system. Hydro has updated its cost-benefit analysis to confirm the least-cost alternative for the replacement of its metering system and a drive-by AMR system remains the least-cost option by a cumulative present worth margin of approximately \$2.1 million. The Util-Assist Inc. report referenced by the Consumer Advocate was only

one piece of information on which Hydro based its decision. The AMR system, as Hydro noted in its response to CA-NLH-086 of this proceeding, was and continues to be the least-cost alternative, consistent with Hydro's statutory mandate as set out in section 3(b)(iii) of the *EPCA*.

## **Falling Behind Other Provinces**

The Consumer Advocate detailed concerns that:

NL's power sector is falling behind other jurisdictions, particularly as it relates to smart grid applications that enable optimum use of existing assets and expansion of renewable energy sources to take advantage of customer-owned generation opportunities.<sup>11</sup>

The Consumer Advocate suggests that Hydro is operating in a manner that does not result in "lowest overall costs for consumers and a cleaner environment." 12

Hydro, in its response to CA-NLH-096 of this proceeding, agreed that technological advancements, including those categorized as "smart grid" technologies, provide alternatives to investment in traditional utility infrastructure. Hydro's perspective is that such investments should be pursued based on cost-benefit analyses or through pilot programs to aid in the collection of cost and operational data before a broad deployment. Hydro has implemented smart grid technologies where such technologies have been demonstrated to be cost-effective, and through the *Reliability and Resource Adequacy Study Review* proceeding, Hydro has evaluated and continues to evaluate, technological advancements to enable enhanced demand management. To date, those technologies have not been determined to be more cost-effective than other traditional supply options within Hydro's supply stack.

The *EPCA*, more specifically the mandate in section 15 3(b)(iii) of the *EPCA*, requires all sources and facilities for the production, transmission and distribution of power in the province to be managed and operated in a manner that results in power being delivered to consumers at the lowest possible cost in an environmentally responsible manner, consistent with reliable service. Hydro will evaluate technologies with holistic consideration of the costs and benefits of each technology on a case-by-case basis to determine if they would meet Hydro's statutory obligation for least-cost, reliable, and environmentally responsible service. When the implementation of such technologies is determined to meet those criteria, Hydro will plan to propose their implementation.

### Conclusion

Hydro submits that the issues raised by the Consumer Advocate regarding Hydro's carryover amounts and cost estimation processes have been addressed as detailed herein as well as in Hydro's application and responses to requests for information, and no additional action, other than what is already underway, is necessary. Hydro further submits that the Consumer Advocate's suggestions to divert funding from Hydro's proposed AMR project proposal to advanced metering infrastructure technology and to direct Hydro to employ integrated distribution planning processes are not supported by the evidence and argument on the record of this proceeding.

<sup>&</sup>lt;sup>11</sup> "Newfoundland and Labrador Hydro – 2025 Capital Budget Application," Office of the Consumer Advocate, November 19, 2024, p. 7.

<sup>&</sup>lt;sup>12</sup> "Newfoundland and Labrador Hydro – 2025 Capital Budget Application," Office of the Consumer Advocate, November 19, 2024, p. 8.

Hydro submits that the capital work for which Hydro has sought approval in its 2025 CBA is necessary to ensure that it can continue to provide service that is reasonably safe and adequate, and just and reasonable, as required by section 37 of the *Act*. Hydro further submits that, as illustrated through the information provided in the 2025 CBA and the process that followed, the proposed projects are necessary to enable its customers to have equitable access to an adequate supply of power and that the proposed projects are the lowest possible cost options consistent with reliable service in an environmentally responsible manner, as required by the *EPCA*.

Hydro respectfully requests that the Board approve the 2025 CBA as submitted.

Should you have any questions, please contact the undersigned.

Yours truly,

#### **NEWFOUNDLAND AND LABRADOR HYDRO**

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