

October 23, 2025

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Lana Myatt
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Nova Scotia Power Inc.
PO Box 910
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Dear Ms. Myatt:

M12455 – Nova Scotia Power Inc. - CI C0059783 – HYD Upper Lake Falls 2 Overhaul – \$1,582,014

The Board has reviewed an application by Nova Scotia Power Inc. (NS Power) dated September 2, 2025, in which Board approval was requested for subsequent approval for the following non-confidential work order:

CI C0059783 HYD Upper Lake Falls 2 Overhaul \$1,582,014

This capital item was included in NS Power's 2025 ACE Plan with a budget of \$1,678,153. NS Power indicated that a decrease of \$96,139 in the budgeted amount is due to the reduction of the original scope of the project.

NS Power noted that the Upper Lake Falls Unit 2 is part of the Mersey River Hydro Station Link. NS Power proposes the refurbishment project to ensure the reliability and safety of the Mersey River Hydro system. Pursuant to s.6(2) of the *Energy and Regulatory Boards Act*, the Board must give "appropriate consideration" to certain factors when approving capital expenditures. The objective of the proposed refurbishment is consistent with the only applicable factor about ensuring the provision of a "... safe, secure, reliable and economical energy supply ...". As a reliability investment, it is also consistent with the direction in s. 64A(3A)(b) of the *Public Utilities Act*.

Board staff issued Information Requests (IRs) regarding this matter on September 16, 2025, and received responses on October 8, 2025.

In its response, NS Power provided information about hydropower system major components and explained the factors used to determine the service life of these components. NS Power noted that according to industry standards, a major overhaul on a

hydro turbine would normally happen about every 25 years, but the wearing parts will require more frequent service, between 8 and 15 years. The last overhaul of Unit 2 was completed in 1999, however, according to a condition assessment report conducted in September 2023, the system will require another overhaul in 2025.

In addition, NS Power noted that Upper Lake Falls Unit 2 is one of the six hydro stations along the Mersey River Hydro Station Link. The refurbishment is important to maintain a controlled water discharge through the generation turbine during regular operation, and operating the unit to failure would pose multiple safety concerns, including public safety, environmental impacts, mechanical hazards, electrical hazards, hydraulic hazards, and operational risks. Furthermore, the proper functioning of Unit 2 is critical to maintain:

- Downstream safety: Prevents excessive head pond elevations that could pose dam safety risks and mitigates the risk of uncontrolled releases.
- System resilience: Maintains generation continuity and operational flexibility across the Mersey system, especially during storm events or high precipitation periods.

NS Power explained that as a remote site, it is not practical to perform a manual spill gate operation during critical situations due to various straining factors, “distance (e.g., Upper Lake Falls is 22 km from the operations center), weather conditions, accessibility and available resources.”

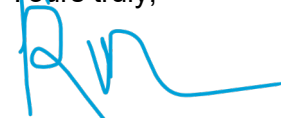
In IR-7, NS Power analyzed the options between full replacement of the unit or onsite refurbishment.

- (b) ... Installation of a new unit requires significantly higher capital investment but does not extend the refurbishment interval beyond 25 years. Also, known issues with alkali-aggregate reaction (AAR) reaction within the powerhouse concrete at Upper Lake Falls make full unit replacement an unsuitable option as the concrete could continue to see movement and growth due to the AAR.

NS Power concluded that due to technical and economical reasons, the proposed refurbishment is the most practical option.

In considering the information above, the Board finds that the project is necessary, and the corresponding cost is justified. Accordingly, this will confirm that the Board has approved NS Power’s request in the amount of \$1,582,014 with respect to this capital expenditure request.

Yours truly,



Richard J. Melanson, LL.B.
Member





NSEB APPROVAL SHEET

Project Title: HYD Upper Lake Falls 2 Overhaul

CI Number: C0059783

Date: September 2, 2025

Expenditure Profile			Type of Filing	
Year	Budget Amount	Project Estimate	☒	Capital Project Authorization
2024	46,084	449	☐	Unforeseen and Unbudgeted (U&U)
2025	976,892	531,636	☐	Planned & Advanced (P&A)
2026	655,177	914,221	☒	Subsequent Approval Item
2027		135,708	☐	Authorization to Overspend (ATO)
			☐	Scope Change
			☐	Final Cost (FIN)
Total	\$1,678,153	\$1,582,014		

COMMENTS

Submitted on behalf of NOVA SCOTIA POWER INCORPORATED

Authorized Signatory
Dave Pickles
Chief Operating Officer

DATE
August 28, 2025

Approved on behalf of NOVA SCOTIA ENERGY BOARD

DATE
September 2, 2025