Bay d'Espoir Penstock 1 Life Extension Project Update

Period Ended August 31, 2025

October 21, 2025

A report to the Board of Commissioners of Public Utilities

newfoundland labrador hydro

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1.0 Progress to Date

As part of ongoing project execution activities, the following update outlines the current status of key project plans, engineering deliverables, penstock fabrication progress, and site works through the reporting period.[1]

Development, submission, and review of key project plans and procedures are effectively complete. Plans and procedures will be updated as needed throughout the project.

Plan submission and review timelines are being actively managed and are tracking in accordance with agreed timelines as per the contract agreement.

1.1 Fabrication

As indicated in the previous reporting period, all fabrication and coating work has been completed, and all penstock sections have been delivered to the site.

1.2 Site Works

In order to track working points for penstock fabrication and installation, and to provide the location of the work along the length of the penstock, stations are used as a reference. The stations begin at the intake structure, 0+00 and continue the full length of the penstock to the powerhouse, station 11+58.[2] The replacement section starts at station 0+65 (Cut 1) and continues to station 4+28 (Cut 2). The refurbishment section starts at station 4+28 and continues the full length of the penstock to station 11+58.

On-site construction continued during the reporting period with excavation and backfilling, can placement, as well as refurbishment activities. Placement and compaction of bedding sand to the springline[3] from Can 2 to Can 18 was completed, and placement of common fill continued from Can 2 up

[1] The reporting period refers to the monthly timeframe summarized in the Project Schedule Milestone Table and Detailed Cost Information attached as appendices to this report. To complete those reports, Newfoundland and Labrador Hydro ("Hydro") reviews the contractor(s)' progress reports to assess compliance with project milestones, timelines, and contractual obligations. The time between the end of the reporting period and the date of this report to the Board of Commissioners of Public Utilities ("Board") includes both the time taken by the contractor to prepare the report and the time Hydro requires to review and incorporate the data into the monthly summary. Hydro will provide the information in this report based on the reporting period, to align with the appendices, with additional updates for any material developments that occur after the reporting period up to the filing of the report.

[2] In these references X+Y, X = hundreds of meters, and Y = meters. 11+58 = 1,158 meters from the intake.

[3] Springline is the center of the penstock in the vertical plane.

to Can 15. Hauling and stockpiling of common material from the quarry at Upper Salmon also continued during this reporting period.

Cans 19 through 25 were lifted, fitted, and tack-welded into place, with welding and non-destructive examination ("NDE") also completed up to Can 23. Exterior coating product was applied to the circumferential weld joints in the replacement section from Cans 16 to 22. Removal of interior bracing was completed from Can 2 to 15, and continued up to Can 23.

Pressure washing of the interior of the cans was completed during this reporting period, and buffing, cleaning, and non-destructive testing of the existing welds on the entire refurbishment section have also been completed. Submittal of the associated Quality Surveillance Reports ("QSR") is ongoing; 284 QSRs have been submitted, which include the inspection of 308 cans. Weld repairs also continued on areas identified through the inspection process in numerous locations along the penstock length.

Work scope associated with the internal coatings of the refurbishment section also started during this period. Sandblasting of the penstock was completed in the area from Cut 2, station 4+28, to Temporary Opening, station 5+39 and a 45-meter section in this area was coated.

Figure 1 to Figure 6 show progress within the current reporting period.

Figure 1: Placement of Can 21 and 22

Figure 2: Placement of Can 25

Figure 3: Internal Bracing Removed in New Cans

Figure 4: Exterior Coating Wrap on Cans 18–19

Figure 5: Placement of Bedding Sand to Springline Near Cans 18–21

Figure 6: Placing Common Backfill on the South Side of Penstock

Since the end of the reporting period, all new cans have been installed, welded, and NDE has been completed. Additionally, all weld repairs that were identified in the refurbishment section of the penstock have been completed and passed final NDE testing. These milestones mark another significant step forward in ensuring readiness for return to service and continue to provide more certainty to the project budget and schedule.

2.0 Project Risks and Mitigations

2.1 Key Risks and Mitigations

A summary of key risks identified during the planning and execution of the project, as well as associated mitigations and status, are provided in Table 1.

Table 1: Key Risks[4,5]

Risk Title/Description	Mitigations	Status
Ability of penstock near toe of dam that was unable to be replaced to meet project performance expectations, including service life and removal of operational restrictions.	• Hydro is working with the EPCM[6] consultant to assess alternative refurbishment options to achieve performance outcomes without replacing this section.	Open – Discussions are ongoing with the EPCM consultant regarding mitigations and options, as further outlined in Section 2.2. Risks have been reduced based on results of the additional inspection.
Penstock coating quality and/or application efficiency.	• Quality concerns are to be mitigated by the Contractor implementing a quality assurance/quality control program, development of an Inspection Test Plan, and using National Association of Corrosion Engineers-qualified inspectors to perform testing on the surface preparation/blasting and coating application, as well as including on-site manufacturer support of the coating product. Contractors with previous experience in applying the specified coating are to be selected. Robotic blasting and coating application methods are to be used to mitigate quality concerns and provide more certainty on application rates. Backup equipment to be on site in case of breakdown.	Open – Requirements included in the contract and reflected in the contractor's schedule. Contractor is actively monitoring productivity rates and making adjustments to crew size, number of work fronts, and equipment on site. Hydro will continue to monitor as work progresses.

2.2 Geotechnical Assessment and Execution Planning

As indicated in previous reports, the adjustment to relocate the splice location will result in approximately 17 meters of the existing penstock remaining in place. Hydro, in collaboration with the EPCM consultants, and based on the additional phased array inspection, have completed the development of alternatives to refurbish this section of the penstock. The repairs completed in this

[4] This table is intended to highlight only key risks that may impact project success. Hydro uses a more comprehensive project risk register to facilitate risk management. Hydro regularly updates the risk register, and should a risk escalate in ranking or a new high risk be identified, it will be added to this table in future updates.
[5] Risks which have been shown as closed in a previous report have been removed.
[6] Engineering, Procurement and Construction Management ("EPCM").

section will meet project performance criteria, including expected service life and the removal of any existing operational restrictions. The weld repairs that were identified during the inspection have been completed in this section during the reporting period; surface preparation for coating application, as per the specifications, as well as coating application, have also been completed.

The potential impact on project cost and schedule remains under evaluation, but is not considered to be significant at this time and will still be within the approved budget.

3.0 Project Schedule

The Contractor's Project Schedule Milestone Table is provided in Appendix A. Based on progress to the end of August, the contractor is trending generally on schedule to meet the project's approved milestones and overall timeline for project completion in the fourth quarter of 2025.

4.0 Project Budget

The Board approved a revised project budget of $65,876,021. Hydro is progressing the work in alignment with the approved budget, with no deviations noted for the reporting period. The project remains on track to meet approved cost and schedule targets, and Hydro continues to actively manage risks to maintain compliance with all regulatory requirements.

5.0 Project Expenditures

As of August 31, 2025, the project expenditure forecast remains below the approved project budget. While Hydro is reasonably confident in its outlook, construction risks remain and will continue to be managed closely.

Appendix B provides further detailed cost information, including an overview of costs incurred to August 31, 2025. Please note that Appendix B has been redacted as it contains commercially sensitive information.

6.0 Conclusion

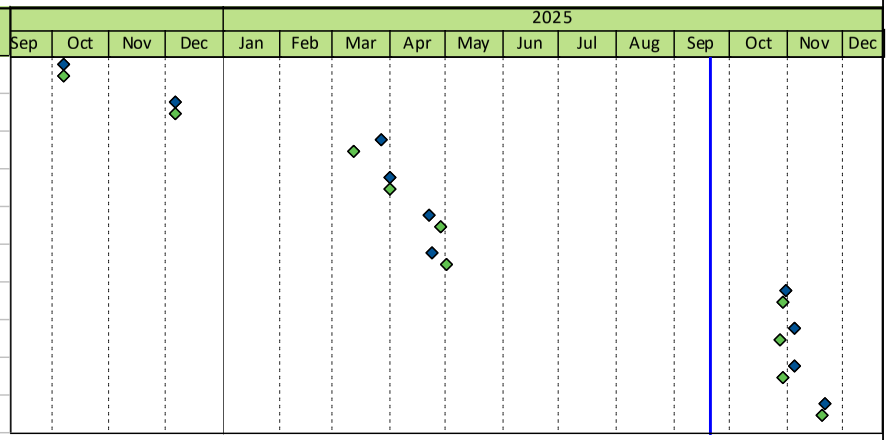
As of the end of the reporting period, the Penstock 1 Life Extension Project remains on track to achieve the project deliverables, meet approved cost and schedule targets, and Hydro continues to actively manage risks to maintain compliance with all regulatory requirements.

Appendix A

Project Schedule Milestone Table

Bay d'Espoir Penstock 1 Life Extension Project Schedule
August 2025
Milestones

Activity Name	Baseline	Forecast	Variance
LNTP Execution Approval	07-Oct-24	07-Oct-24 A	0d
Contract Award	06-Dec-24	06-Dec-24 A	0d
Mobilization to Site	12-Mar-25	27-Mar-25 A	-11d
Penstock Site Handover to Contractor	01-Apr-25	01-Apr-25 A	0d
Start of Replacement Section Works	28-Apr-25	22-Apr-25 A	6d
Start of Refurbishment Section Works	01-May-25	24-Apr-25 A	6d
Completion of Replacement Section	29-Oct-25	31-Oct-25	-2d
Completion of Refurbishment Section Works	28-Oct-25	04-Nov-25	-7d
Completion of Construction Works	29-Oct-25	04-Nov-25	-4d
Completion of all Works and Demobilization	19-Nov-25	21-Nov-25	-2d



Notes:

1 The Project Schedule Report presents a forecast that indicates a variance against the baseline. Forecasts are data-driven and subject to fluctuation as the project evolves. The variance represents a snapshot of the project's schedule status at a specific point in time. As progress continues and additional information becomes available, adjustments will be reflected accordingly.
2 Blue line in the milestone schedule represents the project status date.

Appendix B

Detailed Cost Information

Redacted

Redacted