

Bay d'Espoir Penstock 1 Life Extension Project Update

November 17, 2025

A report to the Board of Commissioners of Public Utilities



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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 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 springline³ from Can 18 to Can 25 was completed, and placement and sloping of common fill continued from Can 2 up to Can 25. Hauling and stockpiling of common material from the quarry at Upper Salmon also continued during this reporting period.

Cans 26 through 28 were lifted, fitted, and welded into place, with non-destructive examination (“NDE”) also completed up to Can 28. Exterior coating product was applied to the circumferential weld joints in the

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.

- 1 replacement section from Cans 23 to 28. Removal of interior bracing was completed from Can 16 to 18
- 2 and continued up to Can 28.
- 3 All weld repairs that were identified in the refurbishment section of the penstock have been completed and
- 4 passed final NDE testing. Additional repairs in the surge tank transition area of the penstock are in progress.
- 5 Work scope associated with the internal coatings of the refurbishment section continued during this period.
- 6 Coatings were completed in the area from Cut 2, station 4+28, to Temporary Opening 3, station 5+39.
- 7 Sandblasting and coating of the area from the Intake, station 00+12 to Cut 1, station 00+65 was also
- 8 completed. Additionally, the area near the powerhouse at bend 10, station 11+00 to station 11+43, was
- 9 sandblasted and partially coated.
- 10 Figure 1 to Figure 6 show progress within the current reporting period.



Figure 1: Placement of Can 26



Figure 2: Prepping Existing Penstock at Cut 2 for Can 28 Install



Figure 3: Placing Final Can 28



Figure 4: Common Backfill Placement Near Can 14



Figure 5: Common Backfill Placement and Sloping



Figure 6: Backfilling and Sloping to Final Grade

1 Since the end of the reporting period, the hauling, placement, and compaction of sand and common
2 backfill material has been substantially completed. In addition, the final grading and sloping of the
3 backfill material and placement of topsoil cover has been substantially completed. These milestones
4 mark another significant step forward in ensuring readiness for return to service and continue to
5 provide more certainty to the project budget and schedule.

6 The sandblasting and surface preparation, as well as the coating work in the refurbishment section, is
7 progressing slower than planned. Since the end of the reporting period, the planned productivity rates
8 associated with sandblasting and coating activities within the refurbishment section of the penstock
9 have not been achieved. This shortfall resulted in schedule slippage and a delay to the planned return-
10 to-service date. In response, the Contractor has implemented recovery strategies and mitigations,
11 including extending the work shift to 12 hrs per day, adding a second work shift (night shift), and
12 increasing resources by adding both equipment and personnel to the work teams. Additional automated
13 blasting equipment, as well as manual blasting and coating equipment, have been procured to enable
14 the execution of multiple work fronts simultaneously. Although these actions have helped to mitigate
15 much of the schedule slippage, the return to service date is still trending beyond the winter readiness
16 date of December 1, 2025, as discussed in Section 3.0.

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 EPCM⁶ consultant to assess alternative refurbishment options to achieve performance outcomes without replacing this section.	Closed – The development of alternatives to refurbish this section of the penstock has been completed and based on results of the additional phased array testing, repairs have been completed.
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.

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").

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. The development of alternatives to refurbish this section of the penstock was completed, with the repairs expected to 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, as was the coating application.

There was no impact to the overall schedule, as the repair of this section was completed using the same means and methods and labour as the remainder of the refurbishment section. There was also minimal impact on project cost as the repairs required were within the estimated weld repair quantities included in the original scope of work.

3.0 Project Schedule

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

Considering delays related to sandblasting and coating activities, overall construction completion remains forecast for the fourth quarter of 2025, specifically anticipated for the first week of December. Based on that completion date, the release-for-service date of Units 1 and 2 is now expected to be mid-December.⁷ Project closeout is expected to be in the first quarter of 2026 to provide sufficient time for final billings, commissioning and general project documentation handover to occur.

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 targets, and Hydro continues to actively manage risks to maintain compliance with all regulatory requirements.

⁷ Commissioning activities, in coordination with other ongoing capital projects in Bay d’Espoir, are anticipated to take two to three weeks. Hydro will provide an update within its next 2025–2026 Winter Readiness Report.

5.0 Project Expenditures

As of September 30, 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 September 30, 2025, and the contributors to the variance between the current forecast and the approved budget. As this is commercially sensitive information, Appendix B has been redacted.

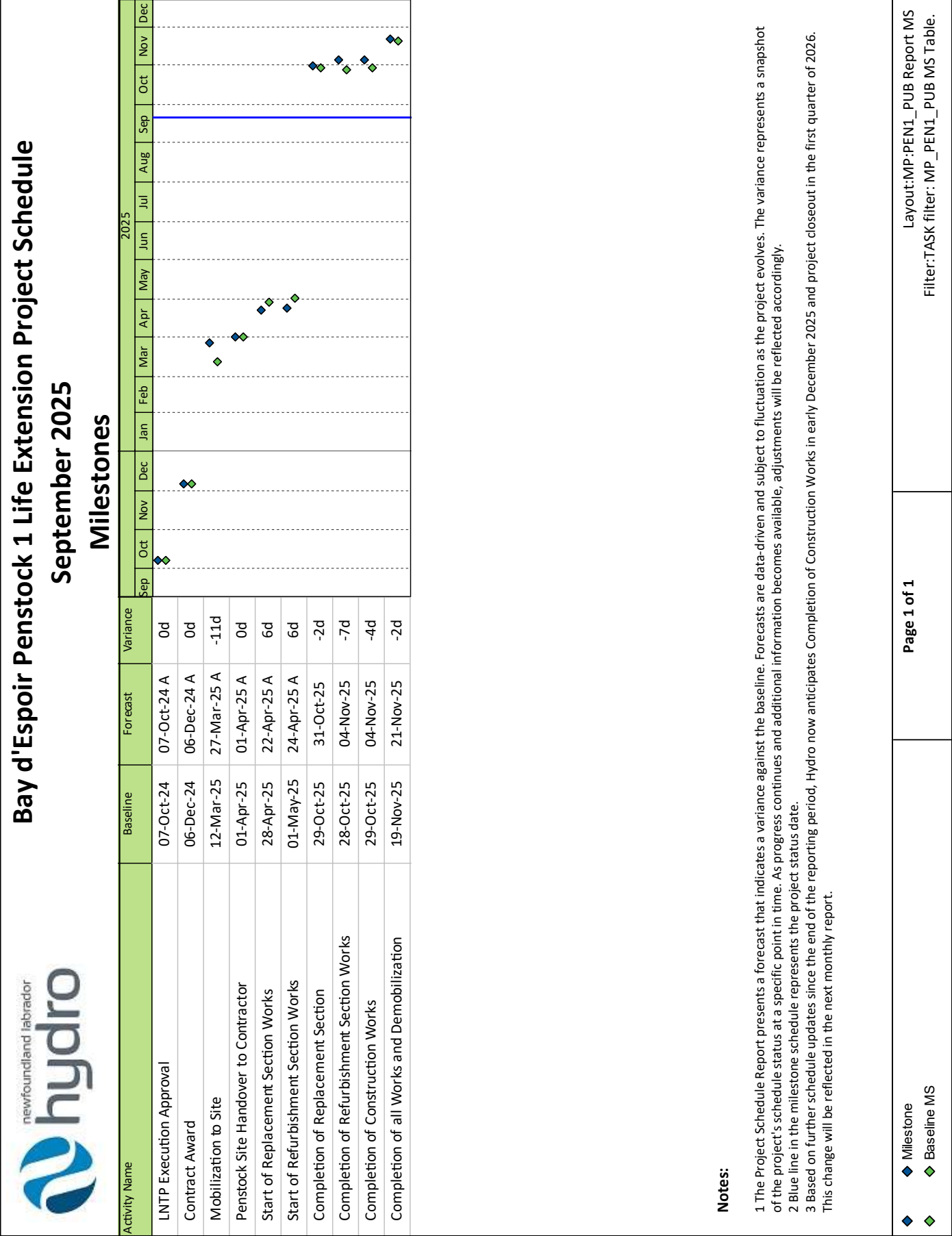
6.0 Conclusion

As of the end of the reporting period, the Penstock 1 Life Extension Project remains on track to achieve the project deliverables and meet approved cost targets. While Units 1 and 2 will not be returned to service prior to December 1, 2025, the units are on track to be returned to service prior to year-end. Hydro continues to actively manage risks to maintain compliance with all regulatory requirements.

Appendix A

Project Schedule Milestone Table





Appendix B

Detailed Cost Information



Redacted

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