



Newfoundland and Labrador Hydro
Hydro Place, 500 Columbus Drive
P.O. Box 12400, St. John's, NL
Canada A1B 4K7
t. 709.737.1400 | f. 709.737.1800
nlhydro.com

December 10, 2025

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: Reliability and Resource Adequacy Study Review – 2025–2026 Winter Readiness Planning Report – Final Report

Further to correspondence received from the Board of Commissioners of Public Utilities ("Board") on October 13, 2016 directing Newfoundland and Labrador Hydro ("Hydro") to provide an annual report detailing its winter readiness planning, and correspondence received on March 5, 2020 requesting additional detail, please find enclosed Hydro's 2025–2026 Winter Readiness Planning Report – Final Report.

Should you have any questions, please contact the undersigned.

Yours truly,

NEWFOUNDLAND AND LABRADOR HYDRO

Shirley A. Walsh
Senior Legal Counsel, Regulatory
SAW/rr

Encl.

ecc:

Board of Commissioners of Public Utilities
Jacqui H. Glynn
Ryan Oake
Board General

Island Industrial Customer Group
Paul L. Coxworthy, Stewart McKelvey
Denis J. Fleming, Cox & Palmer
Glen G. Seaborn, Poole Althouse

Labrador Interconnected Group
Senwung F. Luk, Olthuis Kleer Townshend LLP
Nicholas E. Kennedy, Olthuis Kleer Townshend LLP

Consumer Advocate
Dennis M. Browne, KC, Browne Fitzgerald Morgan & Avis
Stephen F. Fitzgerald, KC, Browne Fitzgerald Morgan & Avis
Sarah G. Fitzgerald, Browne Fitzgerald Morgan & Avis
Bernice Bailey, Browne Fitzgerald Morgan & Avis

Newfoundland Power Inc.
Dominic J. Foley
Douglas W. Wright
Regulatory Email

2025–2026 Winter Readiness Planning Report

December 10, 2025

A report to the Board of Commissioners of Public Utilities



Executive Summary

Newfoundland and Labrador Hydro (“Hydro”) closely monitors its supply-related assets and is confident in its ability to service customers during the 2025–2026 winter season. Each year, Hydro completes extensive winter readiness (“WR”) activities across its network of assets. This requires detailed scheduling and coordination from across all teams and sites to ensure safe completion of all tasks. These activities are primarily completed. While a small number of winter readiness activities remain, these outstanding activities are considered low risk. Hydro is confident in its ability to provide reliable service to its customers, as well as those of Newfoundland Power Inc., throughout this winter season.

Hydro’s regulated generating sources were available by December 1, 2025, with the exception of Unit 3 at the Holyrood Thermal Generating Station (“Holyrood TGS”), and Bay d’Espoir Units 1 and 2. Holyrood TGS Unit 3 is undergoing major overhaul of the steam turbine and valves, and Hydro has worked with the contractor to expedite its return to service date to late-January 2026. Bay d’Espoir Units 2 and 1 are expected to return to service on December 22 and January 12, respectively, upon the conclusion of the Penstock 1 Life Extension Project. Hydro will continue to monitor progress and mitigate work execution and operational risks. In advance of the return to service of these units, Hydro has sufficient generation reserves and appropriate plans in place to mitigate any risk to the system. The system is well positioned to meet the needs of all customers for the 2025–2026 winter season.

The Labrador-Island Link (“LIL”) continues to reliably support the Island Interconnected System, delivering both capacity and energy to meet system needs, and will be available for bipole operation up to 700 MW this winter. Subject to the completion of high-power testing, the LIL will be able to be operated up to 900 MW as system conditions permit. Hydro has determined that the high-power test of the LIL will be postponed until later in the winter as a result of its continued focus on WR activities and prioritization of reliable service to customers during the winter period, including supporting reservoir levels to meet peak load requirements.

Although Hydro has identified risks as outlined in this report, it is important to note that the identification of risks is a normal and important piece of Hydro’s comprehensive planning and preparedness processes. These processes help to ensure reliable operation during our winter operating seasons.

Hydro continues to track the remaining work activities and will provide an update to the Board in January 2026, at which time it expects that the majority of the remaining activities will be complete.

- 1 Hydro remains focused on the completion of the final activities of its annual maintenance program to
- 2 ensure the reliability of its existing assets and infrastructure throughout the 2025–2026 winter operating
- 3 season.

Contents

Executive Summary.....	i
1.0 Introduction	1
2.0 Holyrood Thermal Generating Station.....	3
2.1 Annual Work Plan and Winter Readiness Status	3
2.2 Critical Spares.....	6
2.3 Plant and Equipment Testing	7
2.4 Risk and Risk Mitigation	8
2.4.1 Unit 3 Turbine and Valves Overhaul	9
2.4.2 Unit Boiler Tubes.....	9
2.4.3 High Pressure Feedwater Heaters	10
2.4.4 Unit 1 Turbine Control Valve.....	11
2.4.5 Fuel Oil Contamination Storage Tank 3	11
2.4.6 Cooling Water Sump Structures.....	12
2.4.7 Fuel Oil Storage Tank 1	13
2.4.8 Flame Scanners	13
3.0 Combustion Turbine Generation	14
3.1 Annual Work Plan and Winter Readiness Status	14
3.2 Critical Spares.....	16
3.3 Plant and Equipment Testing	17
3.4 Risk and Risk Mitigation	17
3.4.1 Hardwoods Gas Turbine – Spare Engine Overhaul	17
4.0 Hydraulic Generation	18
4.1 Annual Work Plan and Winter Readiness Status	18
4.2 Critical Spares.....	21
4.3 Plant and Equipment Testing	21
4.4 Risk and Risk Mitigation	22
4.4.1 Bay d’Espoir Penstocks.....	22
4.4.2 Hinds Lake Unit Vibration and Shaft Seal Leakage.....	23
5.0 Muskrat Falls Assets.....	23
5.1 Annual Work Plan and Winter Readiness Status	23
5.2 Critical Spares.....	25

5.3	Plant and Equipment Testing	26
5.4	Risk and Risk Mitigation	26
5.4.1	Muskrat Falls Unit 1 Intake – Concrete Spalling	26
5.4.2	Optical Ground Wires Tower Peak and Top Plate Design	27
5.4.3	Electrode Conductors.....	27
5.4.4	DCCT Cold Weather Operation	28
5.4.5	Cable Switching	28
5.4.6	Synchronous Condenser Brush Gear Assemblies	29
6.0	Transmission and Terminal Stations	30
6.1	Annual Work Plan and Winter Readiness Status	30
6.2	Plant and Equipment Testing	32
6.3	Risk and Risk Mitigation	33
6.3.1	Generator Step-Up Transformer Spares	33
6.3.2	Western Avalon Terminal Station – Replace Bushing Connecting the Gas Insulated Switchgear to Transmission Line TL267	33
6.3.1	Deer Lake Terminal Station – Refurbish T1 Tap Changer	34
7.0	Operational Technology.....	34
7.1	Annual Work Plan and Winter Readiness Status	34
7.2	Plant and Equipment Testing	35
8.0	Status of Winter Readiness for Capital Projects and Programs.....	35
9.0	System Energy Capability	37
10.0	Conclusion.....	40

List of Appendices

Appendix A: Status of Capital Projects and Programs Related to Winter Readiness

Appendix B: Generation Outage Schedule

Appendix C: Critical Spares Status Listing for Thermal Generation

Appendix D: Status of Winter Readiness Testing of Plant and Equipment for Thermal Generation

Appendix E: Status of Winter Readiness Testing of Plant and Equipment for Hydraulic Generation

Appendix F: Critical Spares Status Listing for Muskrat Falls Generation

Appendix G: Status of Winter Readiness Testing of Plant and Equipment for Muskrat Falls Generation

1.0 Introduction

In 2016, the Board of Commissioners of Public Utilities (“Board”) directed Hydro to provide an annual report detailing its WR planning.¹ This report, for the 2025–2026 winter season, addresses the following items as requested by the Board:

- The status of annual work plan items, for Hydro’s generating plant and transmission and terminal stations, including the completion to date, outstanding items to complete, and any risks to completion or as a result of failure to complete.
- A description and schedule for all outstanding [2025] capital projects for Hydro’s generating plant and transmission and terminal stations, including progress on completion status to date and expected completion date.
- Identification of all equipment and plant testing to be carried out in advance of the winter period (generation plant, emergency diesels, black start generators, fire systems, transmission system equipment), including progress on completion status to date.
- The planned generation outage schedule for the period September 1 to December 31, [2025], including an explanation for any planned outages extending beyond December 1, [2025].²
- An update of critical spares assessment and procurement.
- Identification of any risks that could impact the winter readiness of assets as of December 1, [2025] and associated contingency plans.³

¹ “Investigation and Hearing into Supply Issues and Power Outages on the Island Interconnected System – Directions further to the Board’s Phase One Report,” Board of Commissioners of Public Utilities, October 13, 2016, p. 2, item iii.

² In previous years, Hydro’s WR report included a Near-Term Reliability and Resource Adequacy section. The Board approved the removal of the duplicate information in “Newfoundland and Labrador Hydro - Reliability and Resource Adequacy Study Review – Schedule for Future Updates,” Board of Commissioners of Public Utilities, August 17, 2023. The information has been provided in the “Reliability and Resource Adequacy Study Review – 2024 Near-Term Reliability Report,” Newfoundland and Labrador Hydro, November 20, 2024.

³ “Request to Hydro to file Winter Readiness Planning 2016-2017,” Board of Commissioners of Public Utilities, September 13, 2016.

Hydro’s Annual Work Plan (“AWP”) integrates all planned activities for the year (i.e., corrective maintenance (“CM”), preventive maintenance (“PM”), and capital project support) that are critical to the safe and reliable production and transmission of electricity. Hydro regularly measures the progress of its AWP execution in comparison with the plan, and is able to track the AWP status down to the level of individual work plan items. The individual AWP items for various assets are incorporated into an integrated AWP. While some AWP activities are planned for completion through December 2025, those tagged as WR activities are generally planned for completion by December 1, 2025.

To ensure WR, Hydro follows a structured checklist for planning and documenting its testing and inspection of plant and equipment in its thermal and hydroelectric generation facilities.

In its transmission, terminal station, operational technology, and combustion turbine (“CT”) operations, Hydro relies on its AWP process to plan and track its WR testing and inspection of these assets. The AWP items in these areas include planned PM activities and CM items, both of which involve inspection and testing. Planned PMs and CMs, and any other activities pertaining to WR, are flagged inside the respective AWP items and may be tracked separately from other AWP items that are not WR related.

Except where otherwise noted, information presented in this report covers both the Island Interconnected System and the Labrador Interconnected System for the period ending December 1, 2025. This report is organized by operating area (i.e., Holyrood TGS, CT Generation, Hydraulic Generation, Muskrat Falls Assets, Transmission and Rural Operations, and Operational Technology), and WR activities for each operating area are discussed in Sections 2.0 through 7.0 and relevant appendices, which contain applicable information on:

- **Annual Work Plan and Winter Readiness Status:** This report provides a consolidated summary of operation and maintenance progress, both for the entire AWP and the WR tasks for each area. Each status chart includes the completed and remaining operations and maintenance AWP and WR tasks, as well as an indication of the planned task completion target to date.⁴
- **Critical Spares:** An update on the status of Hydro’s critical spares for the 2025–2026 winter season is provided in this report. Items are categorized as In Stock, Non-Stock or Procurement

⁴ AWP and WR task completion target is 90% and 99.5%, respectively.

Ongoing. In Stock status indicates the part is in inventory. Non-stock status is used when parts are critical but not necessary to keep in stock (e.g., because the part is readily available locally). Procurement Ongoing status indicates the part is required to be in stock but is not, and is at a varying stage of the procurement process.⁵ This report includes an update on the status of the critical spares for each operating area, with a detailed listing of critical spares with status of Procurement Ongoing.⁶

- **Plant and Equipment Testing:** Discussion of equipment and plant testing to be carried out in advance of the winter period, including structured checklist for planning and documenting its testing and inspection of plant and equipment in its thermal and hydroelectric generation facilities.

- **Risk and Risk Mitigation:** Discussion of items influencing WR and/or reliable operations.

In line with Board direction, Hydro also provides an update on its capital programs and projects impacting WR in Section 8.0 and Appendix A. As reflected throughout this report, a number of generating unit annual maintenance programs have been completed across the fleet and Hydro plans to complete annual maintenance on all of its regulated generating assets in advance of the winter season, with the exception of Holyrood TGS Unit 3 and Bay d’Espoir Units 1 and 2. The Generation Outage Schedule for September 1 to December 31, 2025 is provided as Appendix B.

2.0 Holyrood Thermal Generating Station

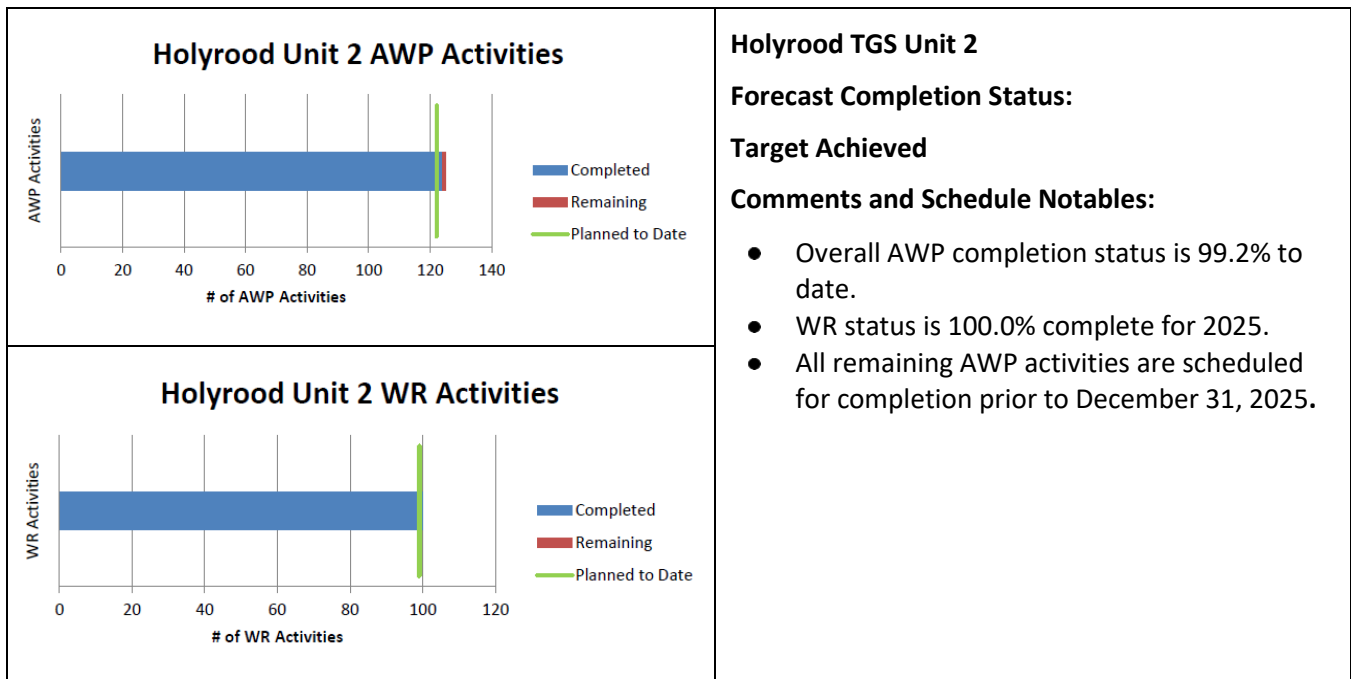
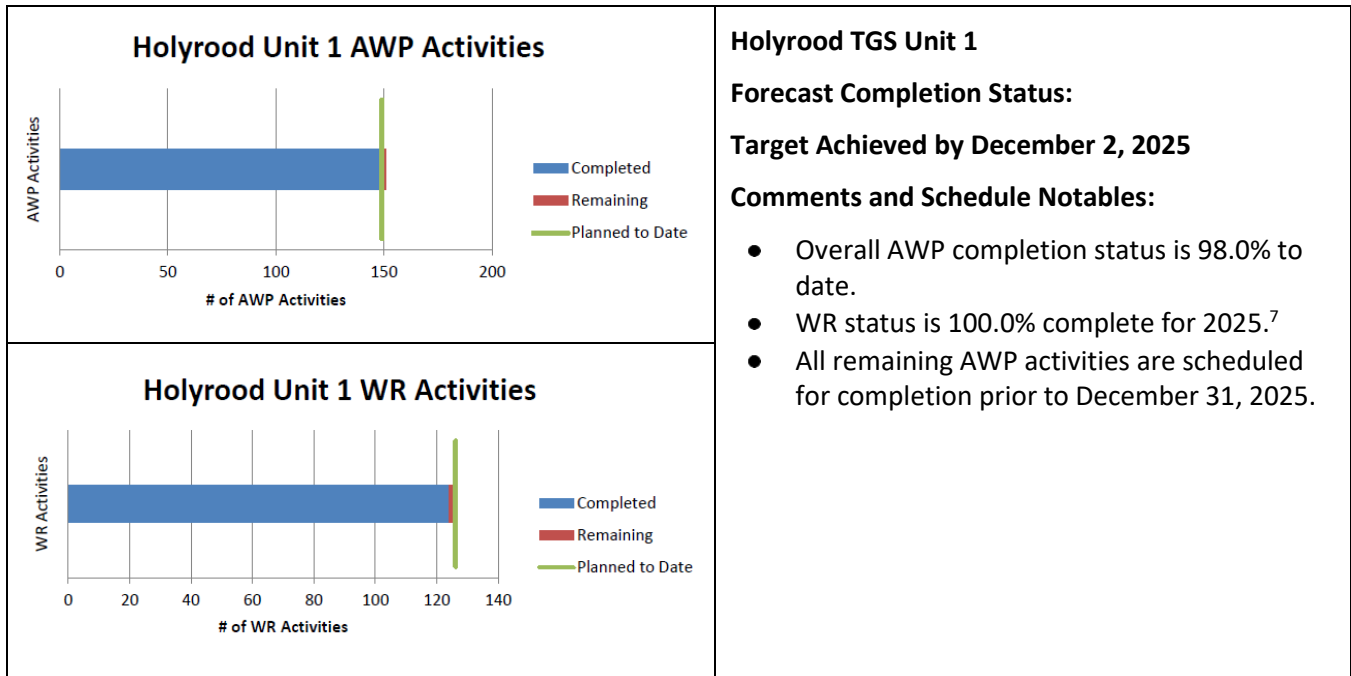
2.1 Annual Work Plan and Winter Readiness Status

The status of AWP and WR execution at the Holyrood TGS is summarized in the following charts, including:

- Units 1, 2, and 3; and
- Balance of Plant, including black start diesels.

⁵ Hydro utilizes a number of its spare parts to address deficiencies found during the maintenance season; as such, fall maintenance outages may result in the requirement to replenish additional spare components.

⁶ A detailed listing of all critical spares for each area of generation operations are provided within Appendices C, E, F and G of “Reliability and Resource Adequacy Study Review – 2025–2026 Winter Readiness Planning Report,” Newfoundland and Labrador Hydro, October 14, 2025. (“October WR Report”).

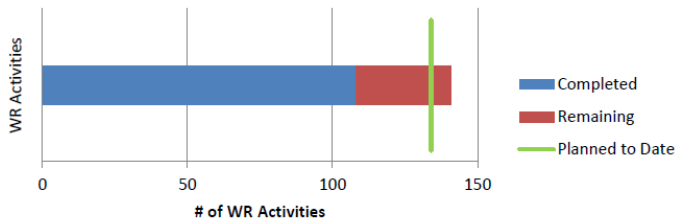


⁷ WR status is 100.0% as of December 2, 2025; two outstanding activities related to reheater safety valve testing were completed on that date, as system conditions allowed.

Holyrood Unit 3 AWP Activities



Holyrood Unit 3 WR Activities



Holyrood TGS Unit 3

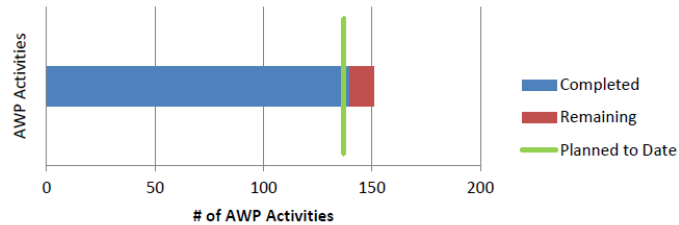
Forecast Completion Status:

On Target for Completion by Return to Service

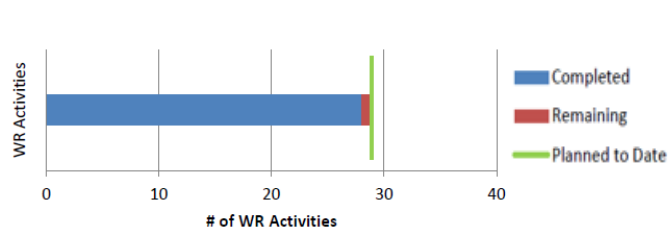
Comments and Schedule Notables:

- Overall AWP completion status is 79.3% to date.
- WR status is 76.6% complete for 2025.
- Unit 3 is scheduled to come online upon completion of its annual maintenance outage on January 31, 2026.
- All remaining activities are scheduled to be completed prior to the unit being returned to service.

Holyrood Balance of Plant AWP Activities



Holyrood Balance of Plant WR Activities



Holyrood Balance of Plant

Forecast Completion Status:

On Target for Completion by December 10, 2025

Comments and Schedule Notables:

- Overall AWP completion status is 92.7% to date.
- WR status is 96.6% complete for 2025.
- All remaining AWP activities are scheduled for completion prior to December 31, 2025.

2.2 Critical Spares

The status of critical spares for the Holyrood TGS is provided in Table 1.

Table 1: Critical Spares for Thermal Generation

Status	Quantity
In Stock	732
Non-Stock	17
Procurement Ongoing	26
Total	775

There are 26 critical spare stock items currently with procurement ongoing, which are detailed in Appendix C. Three items have purchase orders issued; one item is now expected to be delivered January 7, 2026 as a result of supplier delays due to material availability. Risk of failure of this component while in service is low. These couplings are typically replaced during annual outages following an inspection by the boiler service provider. One item is expected to be delivered in March 2026; this item is a boiler feed pump (“BFP”) recirculation valve which was just replaced on Unit 2. Replacement of these valves are very rare, therefore Hydro considers the risk to WR to be low. Shipping date of the third item is pending, as quality control issues have resulted in re-manufacturing of the part. This item is being expedited. Risk of failure of this component while in service is low, and measurements can be taken manually in the event of failure.

Two items have been sent to third-party vendors for refurbishment; one item is now expected to be delivered December 17, 2025 due to additional work required. Risk of failure of this component while in service is low. The spare volute was installed during the regular BFP overhaul to reduce the outage duration. Refurbishment of the spare component for return to inventory is normal, and does not present a considerable risk. The remaining item was determined to be unrepairable, and now requires replacement. A quote for this item is in progress, and delivery date remains to be determined. Due to the extended outage of HRD Unit 3, there is no risk of not having a spare motor at this time.

The remaining 21 items were recently consumed during the Overhaul Unit 3 Turbine and Valves program. A purchase order has been issued to the original equipment manufacturer (“OEM”) for these 21 items, all of which are expected to be delivered by July 2026. As these outstanding items are typically used during outages only, Hydro considers the risk to WR to be low.

2.3 Plant and Equipment Testing

WR testing of generating equipment in thermal generation is focused primarily around annual unit maintenance outages. Following these annual outages, units are run up and synchronized and all systems are verified before the unit's operating status is determined and preparedness is confirmed. Unit load tests are performed at this time as well; however, all required load testing is not completed until later in the fall when system conditions allow. The WR testing protocol includes the testing of appropriate Balance of Plant components, including the black start diesel generators.⁸ The current status of equipment/plant testing for thermal generation is indicated in Appendix D.

Unit 1 returned to service in mid-September 2025 after completion of its annual maintenance outage. The majority of the start-up checks for Unit 1 have been completed, as reflected in Appendix D. Soon after the unit returned to service, an issue was discovered with the turbine control valves, restricting the unit to 100 MW. Correction of this issue required a brief unit outage, which began November 24, 2025 as system conditions permitted, and concluded on November 27, 2025. Outstanding load testing, online safety valve testing, and confirmation of turbine control valve operation was completed by December 2, 2025. During load testing on Unit 1, a maximum load of 163 MW was reached, limited by condenser back pressure. Investigation into this issue is ongoing. Additionally, the Bowser Oil Conditioner is not yet in service on Unit 1. Work is ongoing to return the conditioner to service after the completion of annual maintenance, which is expected in mid-December 2025. Until the return to service of the conditioner, risk to lube oil condition is low due to an external filter cart in the lube oil system. High pressure ("HP") feedwater heaters Number 4 and 5 are not available for service this year due to the failure of Heater Number 4. Heater Number 6 will remain in service. This will not impact the ability of the unit to operate reliably at full load for this winter.

Unit 2 returned to service in mid-October 2025 following the conclusion of its annual maintenance outage. All start-up checks for Unit 2 were completed upon return to service of the unit, as indicated in Appendix D, with the exception of the Bowser Oil Conditioner. Work is ongoing to return the conditioner to service after the completion of annual maintenance, which is expected in mid-December 2025. Until

⁸ The black start diesel generators are run up to speed and synchronized on a weekly basis to confirm their availability. The function of all associated breakers are also tested and confirmed.

the return to service of the conditioner, risk to lube oil condition is low due to an external filter cart in the lube oil system. All HP feedwater heaters are expected to be in service for Unit 2 for this winter.

Unit 3’s return to service is expected in late-January 2026 due to the additional work required during the Overhaul Unit 3 Turbine and Valves Program, and failure of the turbine hall crane at the Holyrood TGS. As indicated in Appendix D, the majority of start-up checks on Unit 3 have not been completed due to the ongoing outage. The start-up checks will commence in preparation to return the unit to service, with the remainder completed when the unit is started up for system generation needs. HP feedwater heater Number 6 on Unit 3 will not be available for service this year due to failure. Heaters Number 4 and 5 are expected to be in service. The unit is expected to be available for full load when returned to service.

2.4 Risk and Risk Mitigation

In accordance with capacity requirements as specified by Hydro in its 2024 Resource Adequacy Plan,⁹ Hydro has recommended that all three Holyrood TGS units remain available through the “Bridging Period”¹⁰ while Hydro seeks to develop new long-term sources of supply.

In 2021, Hatch Ltd. (“Hatch”) completed its Life Extension Condition Assessment Study (“LECA”),¹¹ including a capital plan to support the standby operation of the Holyrood TGS to 2030. In 2024, Hatch completed a refresh to their capital plan, which also considered operations to 2035 to inform the capital costs of operating beyond 2030, should this be required.¹² It is recognized that increased age can result in an increased risk of in-service failures. Hydro mitigates this risk through regular overhaul programs on major components, increased condition assessment work, and a robust critical spares program.

Hydro anticipates that Units 1 and 2 at the Holyrood TGS will be fully available for the winter period. Unit 3 is undergoing major overhaul of the steam turbine and valves, and is expected return to service in

⁹ “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).

¹⁰ Hydro considers the Bridging Period to be from the present to 2030, or until such time that sufficient alternative generation is commissioned, adequate performance of the LIL is proven, and generation reserves are met. During the Bridging Period, the system would rely primarily on existing sources of generation capacity to maintain reliability while new generation capacity is being built. The primary, readily available supply options in this period are extending the retirements of the Holyrood TGS, Stephenville GT and the Hardwoods GT until their capacities can be adequately replaced.

¹¹ “Reliability and Resource Adequacy Study Review – Assessment to Determine the Potential Long-Term Viability of the Holyrood Thermal Generating Station,” Newfoundland and Labrador Hydro, March 31, 2022, att. 2.

¹² “Reliability and Resource Adequacy Study Review – Holyrood Thermal Generating Station Capital Plan Refresh,” Newfoundland and Labrador Hydro, March 7, 2025, att. 1.

late-January 2026. Items influencing WR and/or reliable operations are identified in the sections that follow.

2.4.1 Unit 3 Turbine and Valves Overhaul

The WR scope in this program is to clean, inspect, test, and refurbish or overhaul as required the turbine and turbine valves for Unit 3 at the Holyrood TGS. The planned inspection and overhaul of the turbine valves is substantially complete, with final commissioning to occur during the start up and return to service of Unit 3.

The planned turbine inspection has been completed and overhaul and reassembly work is in progress. During the project discovery phase, damage was discovered on a turbine rotor diaphragm that required additional time to refurbish at the OEM facility. The diaphragm refurbishment work is complete and the component has been returned to the Holyrood TGS. Installation of this component in the lower turbine casing has now been completed, but this unplanned refurbishment delayed the expected return to service of Unit 3.

Failure of the turbine hall overhead crane at the Holyrood TGS, which is required to reassemble the turbine, resulted in further delays in the expected return to service of the unit. Engineering of the repair and procurement of the necessary materials is complete, and the crane returned to service in early November 2025. On December 3, 2025 a grinding noise within the crane was identified and crane operations were suspended. The crane was repaired and returned to service on December 8, 2025.

Hydro continues to work with the contractor to expedite the return to service date of Unit 3. The new return to service date for Unit 3 is January 31, 2026.

Hydro continues to track this risk and will provide an update to the Board in January 2026.

2.4.2 Unit Boiler Tubes

Each of the three thermal generating units at the Holyrood TGS has a boiler that contains tubes, the failure of which are a common issue in thermal power plants.¹³ To mitigate the possibility of tube failures, Hydro conducts a thorough annual tube inspection and test program, which was executed

¹³ Boiler tube failures are a common issue in thermal power plants due to the inherent design, which requires relatively thin walls for heat transfer to be subjected to high temperatures and stresses.

1 during the 2025 annual outage season, and is scheduled to reoccur in 2026. Hydro has determined that
2 the boiler tube sections as a whole are in good condition; however, tube failures continue to pose a risk.
3 Hydro maintains a thorough selection of spare tube material and a contract with an experienced boiler
4 contractor for the provision of emergency repairs in the event of tube failures.

5 **2.4.3 High Pressure Feedwater Heaters**

6 In recent years, Hydro has experienced increasing difficulty in operating the HP feedwater heaters, with
7 the majority of the heaters unavailable for service during the 2023–2024 operating season due to tube
8 bundle leaks.¹⁴ In 2024, Hydro began a condition assessment program,¹⁵ under which all heaters will be
9 opened for internal inspection and tube testing over the next two years.

10 This program continued in 2025, with a total of six of the nine heaters assessed to date.¹⁶ Four of these
11 heaters were refurbished and returned to service; two had deteriorated severely and could not be
12 refurbished. Replacement of these heaters (Heater Number 4 on Unit 1, and Heater Number 6 on
13 Unit 3) is ongoing. Three heaters remain to be assessed in 2026, all of which are available for service. For
14 the 2025–2026 operating season Unit 1 will have one heater in service, Unit 2 will have three heaters in
15 service, and Unit 3 will have two heaters in service as a result of this ongoing work. Based on heater
16 lead-time and the need for installation during a unit outage, replacement of the two failed heaters is
17 expected to occur after the 2025–2026 operating season.

18 The units can be operated reliably at full load without the HP feedwater heaters in service; however,
19 extended operation through the Bridging Period without the heaters can cause premature failures of
20 turbine and boiler components, with one significant impact being risk of damage to the last stage blades
21 (“LSB”). Potential damage attributable to operation without HP feedwater heaters would not be
22 expected to cause sudden failure, and would occur on components that are regularly inspected,

¹⁴ The HP heaters transfer heat from steam outside of the tubes to the feedwater, which then passes through the tube bundles to the boiler. Each unit contains three heaters, which are intended to improve thermal efficiency.

¹⁵ “2024 Capital Budget Application,” Newfoundland and Labrador Hydro, rev. September 21, 2023 (originally filed July 12, 2023), sch. 6, prog. 6.

¹⁶ There are three heaters per unit, numbered 4 through 6. Heaters 4 and 5 are linked and must be operated in parallel.

including boiler tubes and turbine blades.¹⁷ As such, Hydro considers the risk to the Holyrood TGS for this winter operating season associated with the HP feedwater heaters to be low.

2.4.4 Unit 1 Turbine Control Valve

The completion of the Overhaul Unit 1 Turbine Valves and Generator 2024 Program included assessment and refurbishment of the main steam control valves. During the assessment of these components by the turbine service provider, it was discovered that the camshafts that control opening and closing of the control valves were bent outside of the OEM recommended tolerance for reliable operation. Two spare camshafts, OEM supplied, were used to rebuild the control valve assemblies.

During commissioning of the unit during April 2025, load was limited intermittently. The OEM investigated the issue and determined that pins on the new camshafts were interfering with the control valves, preventing full opening. The interference was corrected, and the unit successfully returned to service.

After this adjustment, the unit was operated for a brief period without the issue reoccurring before being shut down for the summer. Hydro believed that this issue was resolved; however, during the return to service of Unit 1 in September 2025 after completion of the annual outage, the same load limit was experienced, restricting the unit to 100 MW. In consultation with the OEM and service provider, correction of this issue required a brief unit outage, which began November 24, 2025 as system conditions allowed. Repairs were successfully completed and the unit returned to service at full capacity on November 27, 2025; as such, this risk is now resolved.

2.4.5 Fuel Oil Contamination Storage Tank 3

In March 2025, Hydro received a fuel delivery of just over 202,000 barrels. The bulk of this delivery (approximately 180,000 barrels) was allocated to Tank 3 while the remaining (approximately 22,000 barrels) was stored in Tank 1. While this fuel delivery fully complied with Hydro's specifications, issues with frequent strainer plugging were encountered immediately with fuel drawn from Tank 3, with contamination suspected. At that time, there were also leaks in the steam piping to Tank 3, which

¹⁷ Since 2023, Hydro has completed assessments of the LSBs on all three units, and replacements were completed on the Unit 1 and Unit 2 blades.

1 limited the amount of heating that could be provided to the fuel oil and may have contributed to the
2 strainer plugging; however, this has since been corrected.

3 When Unit 1 was returned to service in September 2025, Tank 4 was in service and there were no
4 concerns with fuel plugging. Upon switching fuel supply from Tank 4 to Tank 3, strainer plugging became
5 severe, leading to a trip of Unit 1 on September 25, 2025 due to insufficient fuel supply to the boiler.

6 Rather than discharge the fuel, operational strategies were followed to consume the fuel in Tank 3,
7 including using the fuel from Tank 3 in parallel with other tanks to dilute the contaminated fuel
8 and reduce the potential for fouling. A new fuel delivery was received on November 10, 2025 and Tank 3
9 has been independently supplying the plant with fuel without issue since that time;¹⁸ as such, this risk is
10 now resolved. As reported in previous WR Reports, Hydro is taking preventative measures to prevent
11 the receipt of contaminated fuel in future.

12 **2.4.6 Cooling Water Sump Structures**

13 The WR scope in this project is to clean, inspect, and perform a Level 2 Condition Assessment of the
14 Holyrood Stage 2 Pumphouse cooling water sump structures. This project was initially approved by the
15 Board to complete a Level 2 Condition Assessment of both the Stage 1 & Stage 2 cooling water sump
16 structures in 2025; however, as a result of the outcome of the procurement process, Hydro adjusted its
17 approach and proposed to proceed with the inspection of Pumphouse 2 only in 2025, and to extrapolate
18 the findings to define the scope of the Pumphouse 1 refurbishments.¹⁹ The risk associated with not
19 completing the condition assessment of Pumphouse 1 in 2025 is considered to be low, and was
20 mitigated by completing a UAV²⁰ inspection to identify any significant changes in the concrete condition
21 over the past 12 months. This inspection is now complete, with preliminary feedback indicating that no
22 major changes were observed.

23 The schedule delay associated with pausing the project construction activities to update, review and
24 approve the new project budget and scope has precluded the completion of restoration work in

¹⁸ At the time of the fuel delivery, approximately 50,000 barrels of fuel remained in Tank 3. Approximately 150,000 barrels of new fuel was added to the tank.

¹⁹ The Board approved Hydro's proposal and updated budget in Board Order No. P.U. 29(2025).

²⁰ Unmanned Aerial Vehicle.

Pumphouse 2 in 2025.²¹ The cooling water sump within Pumphouse 2 is expected to be available for service by December 12, 2025. To mitigate risk in advance of the completion of restoration work, existing measures established to limit areas of the pumphouse to foot traffic only will be maintained during the 2025–2026 winter season.

2.4.7 Fuel Oil Storage Tank 1

During a tanker delivery in November 2024, while filling Tank 1, it was determined that both suction heaters²² on this tank had tube leaks. The leaking tubes were removed from service by plugging, which allowed the suction heaters to be returned to service; however, the number of tubes removed from service in each heater was significant, and has reduced their heating capability. As such, for reliable winter operation, the Tank 1 suction heaters need to be replaced.

Hydro purchased replacement suction heaters, which were delivered to the Holyrood TGS in October 2025. Hydro prioritized the consumption of fuel from Tank 1 early in the operating season to reduce the fuel in the tank to minimum storage levels, where the suction heaters can be replaced. This replacement work was completed in late November 2025; as such, this risk is now resolved.

2.4.8 Flame Scanners

The combustion of fuel in the boilers at Holyrood TGS is supervised by safety devices called flame scanners. Each burner has its own flame scanner, which is an optical device that detects the presence of flame. If the flame scanner does not detect flame, then it will shut off the fuel going to that burner. This prevents the accumulation of unburned fuel inside the boiler, which could lead to an explosive condition. These devices are required by code. Unit 1 and Unit 2 each have twelve burners, while Unit 3 has nine. To reliably generate full load, all burners are required to be operational.

Hydro's existing flame scanner system is no longer supported by the OEM, and it is no longer possible to purchase additional scanners. To mitigate the risk of obsolescence and the minimal availability of spare parts, the flame scanners on Unit 2 were identified for replacement with a newer model procured from the OEM. The new system was installed on Unit 2 during the 2025 annual outage; however, during start-

²¹ At this time, Hydro anticipates proposing the completion of restoration work in Pumphouse 1 through a supplemental application in 2026, and Pumphouse 2 refurbishment as part of its 2027 Capital Budget Application.

²² The suction heaters utilize steam to heat the oil to a sufficient temperature, allowing the oil to flow freely from the tank farm to the plant for combustion in the boilers.

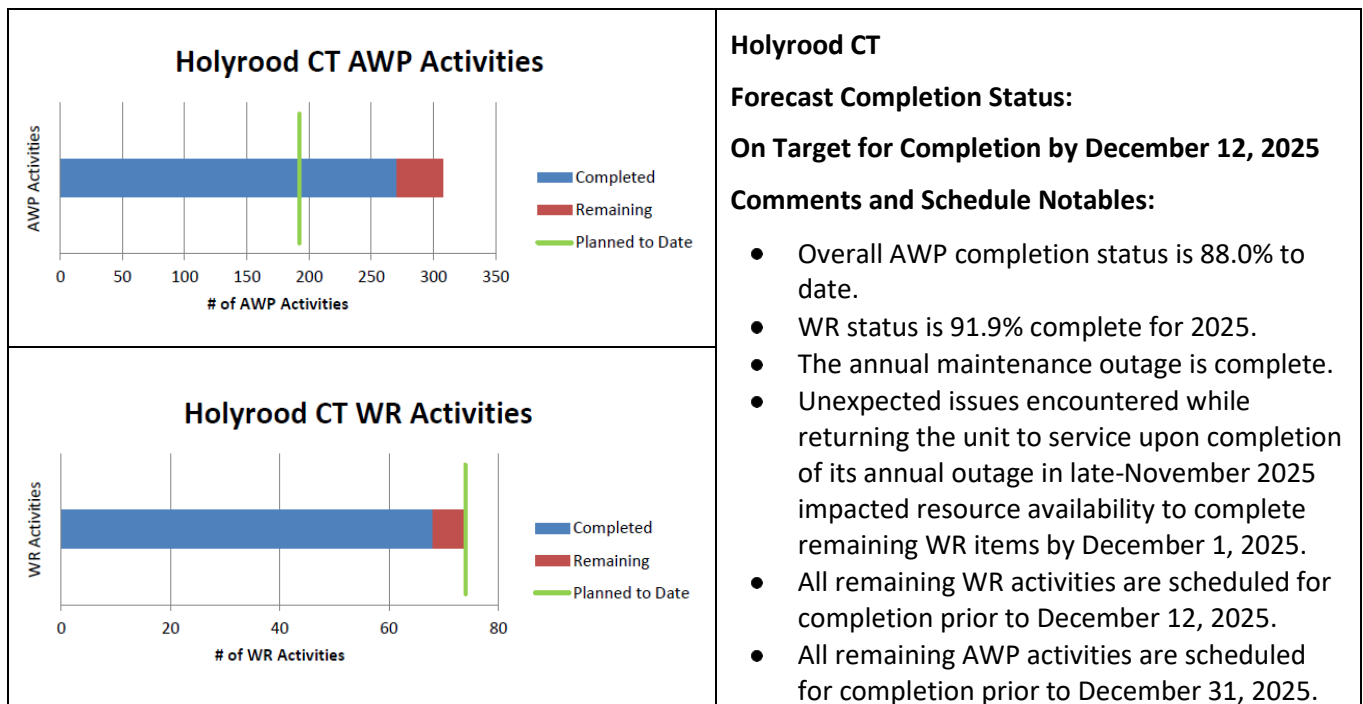
up of the unit in October 2025, technical issues occurred which prevented the unit from returning to service. After several days of troubleshooting supported by the OEM, it was agreed to return to the original scanner system to enable the unit to return to service. Hydro will continue to work with the OEM to resolve the technical issues and enable the new system for changeover and commissioning during the next annual unit outage, or a maintenance outage earlier in 2026.

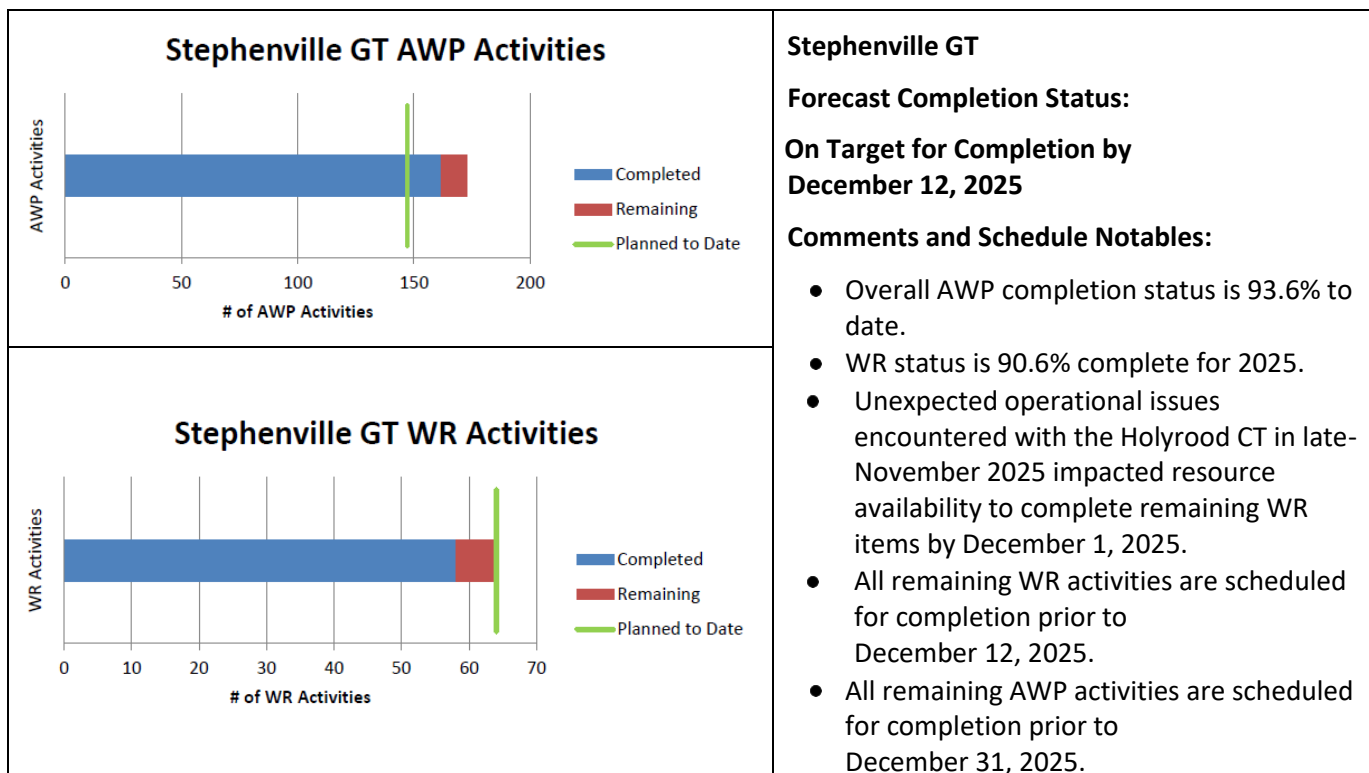
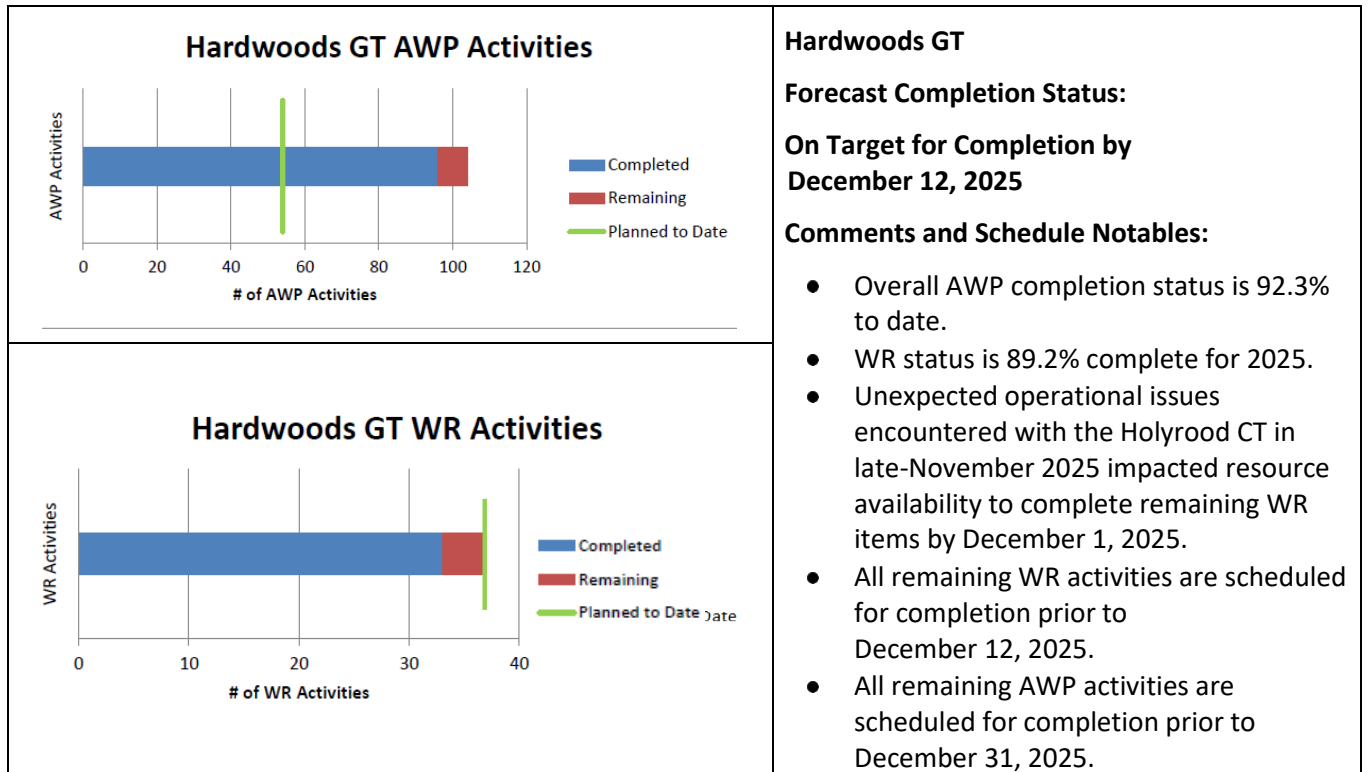
Hydro has sufficient scanners for burners on all three units, with 10 additional spares, and a total of 33 currently in-service across the three burners. All scanners for Unit 3 and the 10 additional spares have been tested and confirmed to be operational. Based on operational experience, Hydro will carefully monitor for scanner failures but expects this is a sufficient number of spares to maintain the availability of all burners for the winter operating season, especially given the delay in return to service of Unit 3. As such, Hydro considers the risk to the Holyrood TGS for this winter operating season to be low.

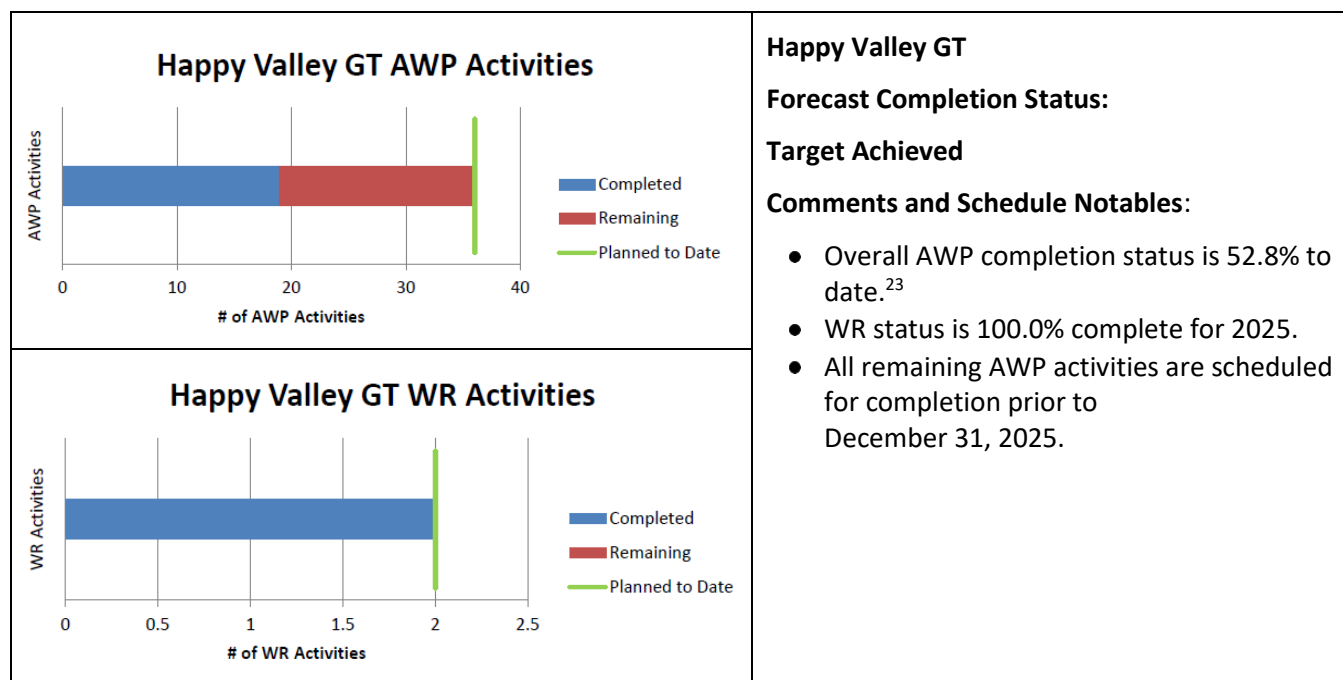
3.0 Combustion Turbine Generation

3.1 Annual Work Plan and Winter Readiness Status

The status of AWP and WR execution at the Holyrood CT, Hardwoods GT, Stephenville GT, and Happy Valley GT is summarized in the following charts.







3.2 Critical Spares

- As shown in Table 2, all critical spares are in stock for the Hardwoods GT, Stephenville GT, Holyrood CT, and Happy Valley GT.

Table 2: Critical Spares for CT Generation

Status	Hardwoods/ Stephenville	Holyrood	Happy Valley	Total
In Stock	90	403	54	547
Procurement Ongoing	0	0	0	0
Total	90	403	54	547

- Hydro has utilized some of its critical spares during recent fall maintenance outages; however, these items have been identified and the spare components have been replenished.

²³ In total, 17 AWP activities remain to be completed for the Happy Valley GT.

3.3 Plant and Equipment Testing

Examples of WR activities that are included in the AWP for the Holyrood CT, Hardwoods GT, Stephenville GT, and Happy Valley GT include the following:

- PMs and CMs for major components and auxiliary systems;
- Black start testing;
- Monthly operational testing; and
- Execution of capital upgrades and refurbishment.

Black start testing of the Holyrood CT, Happy Valley GT, Hardwoods GT, and Stephenville GT is complete. Operational testing of all CTs was performed throughout the year as planned and all WR capital upgrades and refurbishments were completed by December 1, 2025.

3.4 Risk and Risk Mitigation

Existing risk to WR and/or reliable operations related to CT operations is discussed in the section that follows.

3.4.1 Hardwoods Gas Turbine – Spare Engine Overhaul

During a 2024 inspection, internal damage was found on the high-pressure turbine normal guide vane seals of the engine installed in End A at the Hardwoods GT. While the damage was relatively minor in nature, the location of the damage and age of the engine required that the engine be removed from service and sent to a facility for overhaul, to eliminate the risk of a catastrophic failure. The damaged engine was removed and its spare installed during the planned maintenance outage which concluded in early November 2024, and the engine arrived at the repair facility in January 2025.

The engine was expected to be returned from the overhaul facility in October 2025; however, during final inspections, an issue was detected with the fit of the turbine guide vanes. This issue requires the disassembly and replacement of components inside the engine. As a result, the engine is not expected to be returned from the overhaul facility until late December 2025 or early January 2026.

Hydro will not have a spare engine onsite until the return of the repaired engine, which also functions as a spare for the Stephenville GT, and has developed contingency plans should an operational issue occur.

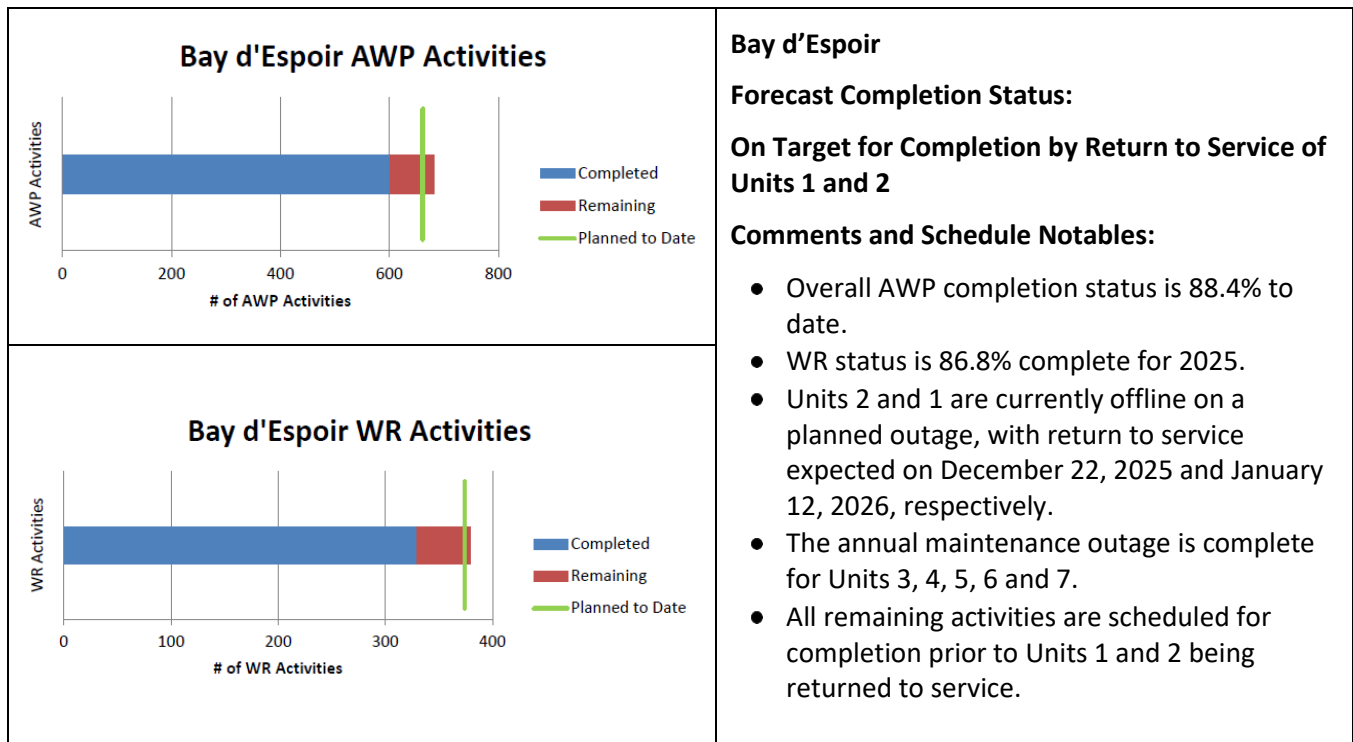
Hydro’s service provider has an additional lease engine available which Hydro can avail of should operational issues occur which requires an engine replacement prior to the return of the spare engine.

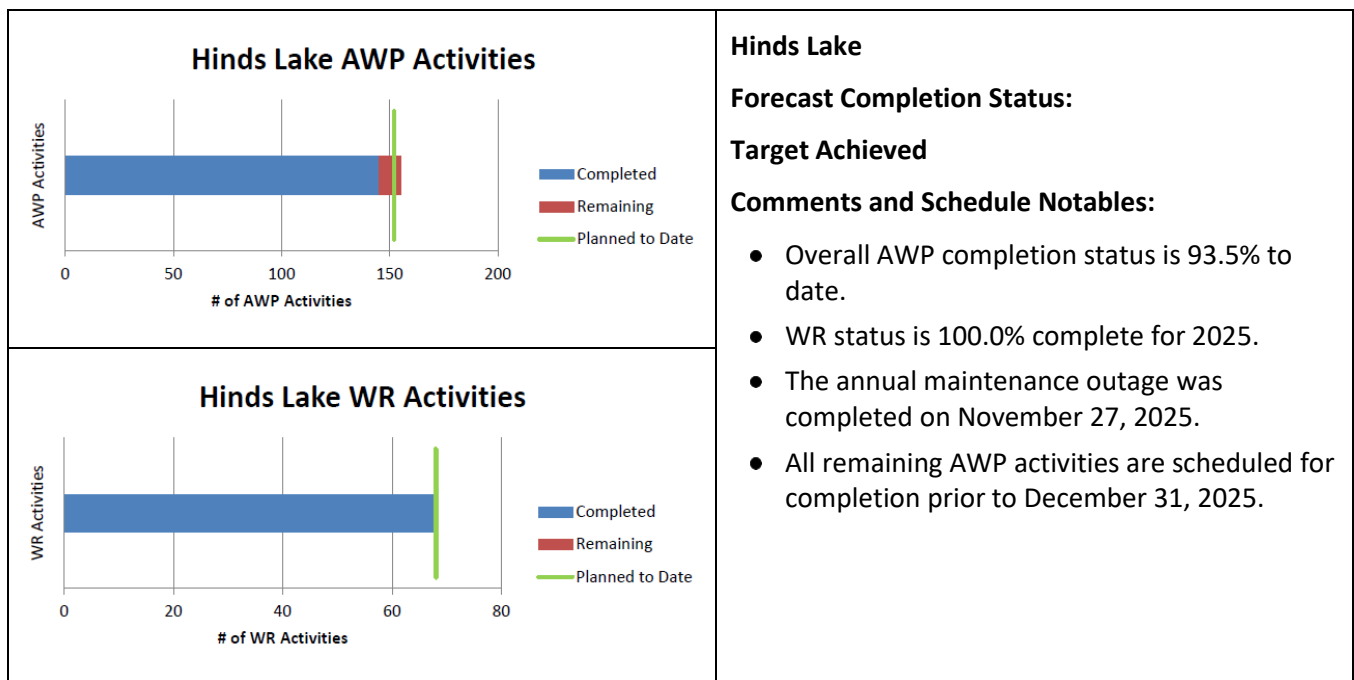
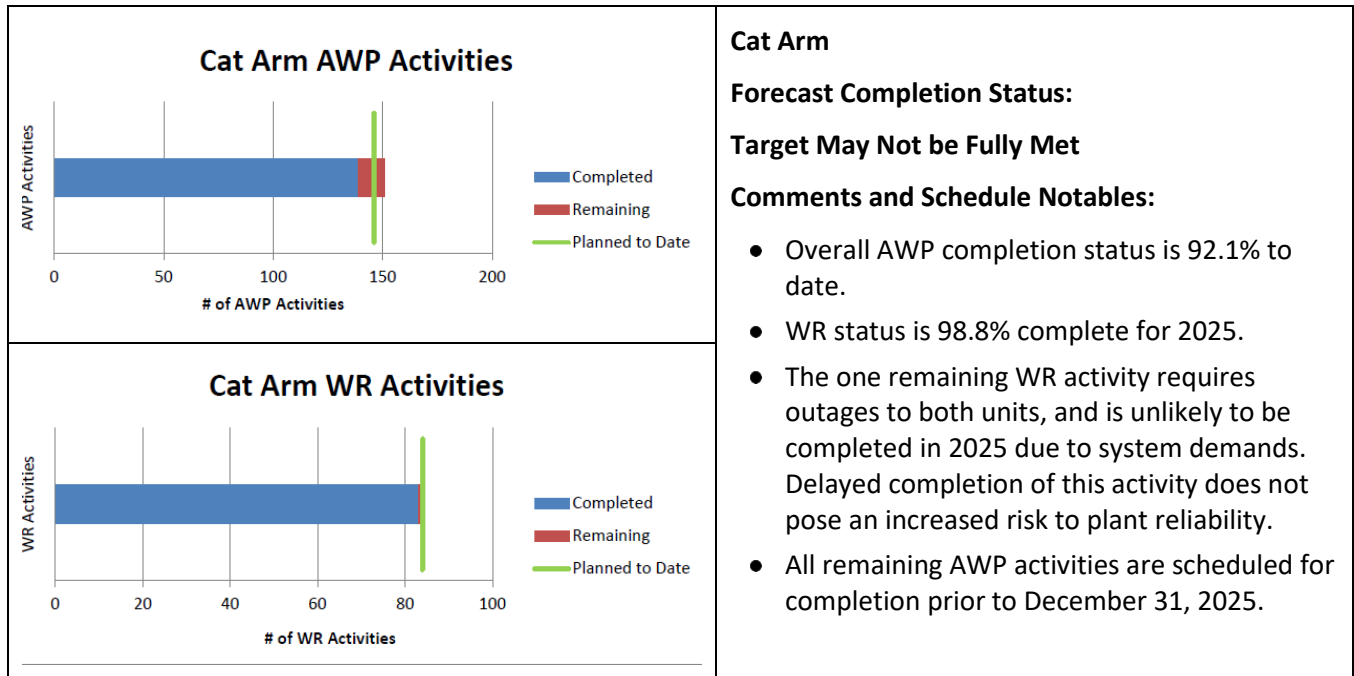
4.0 Hydraulic Generation

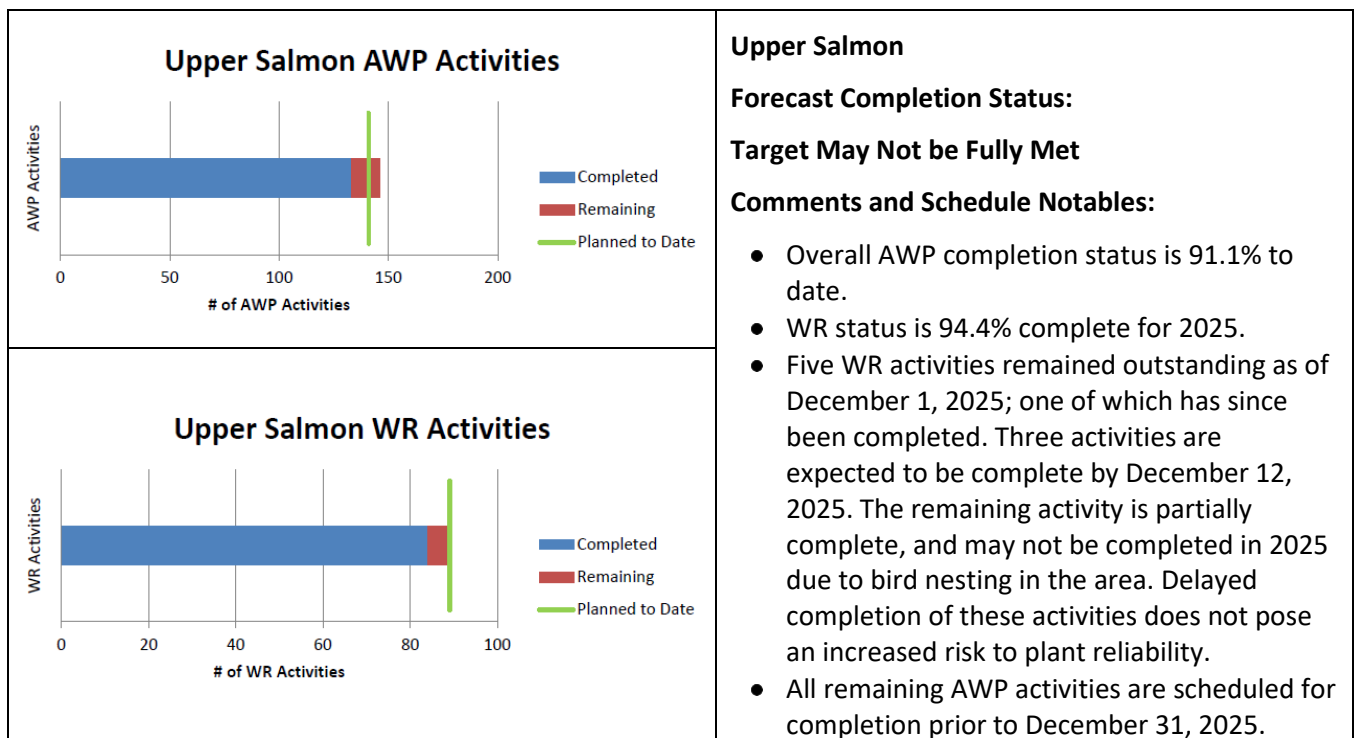
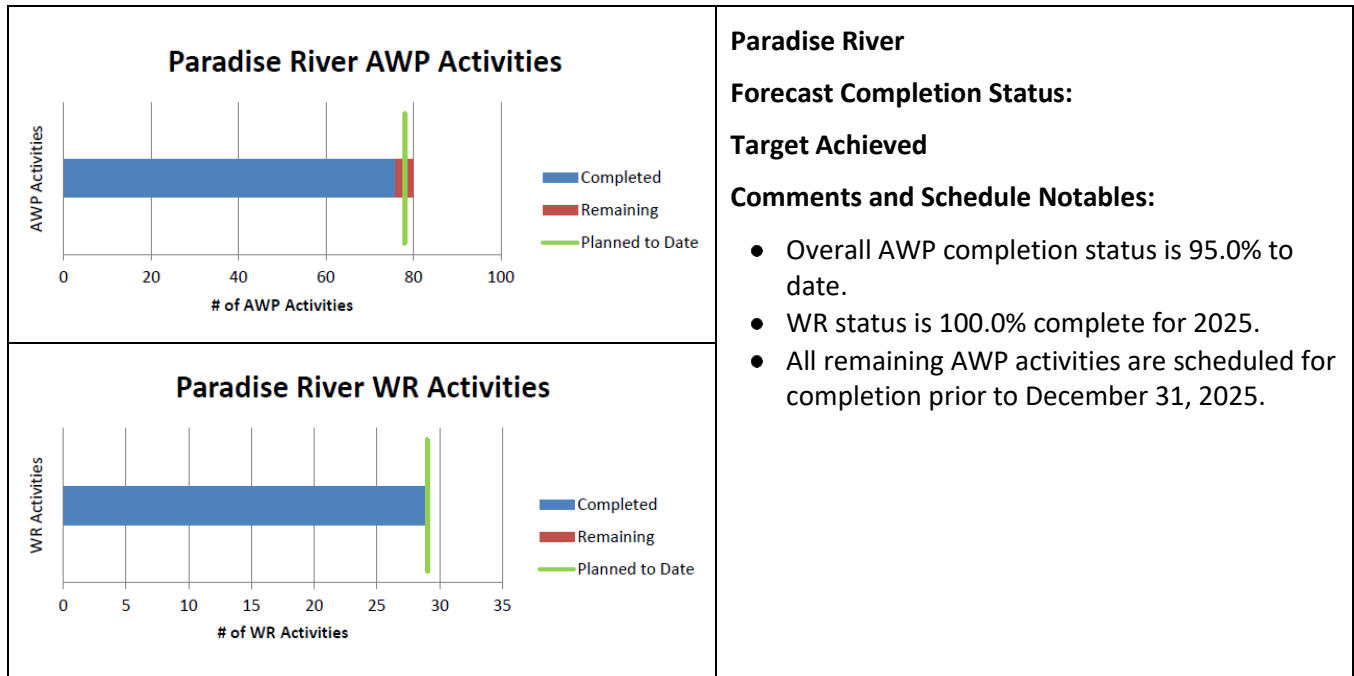
4.1 Annual Work Plan and Winter Readiness Status

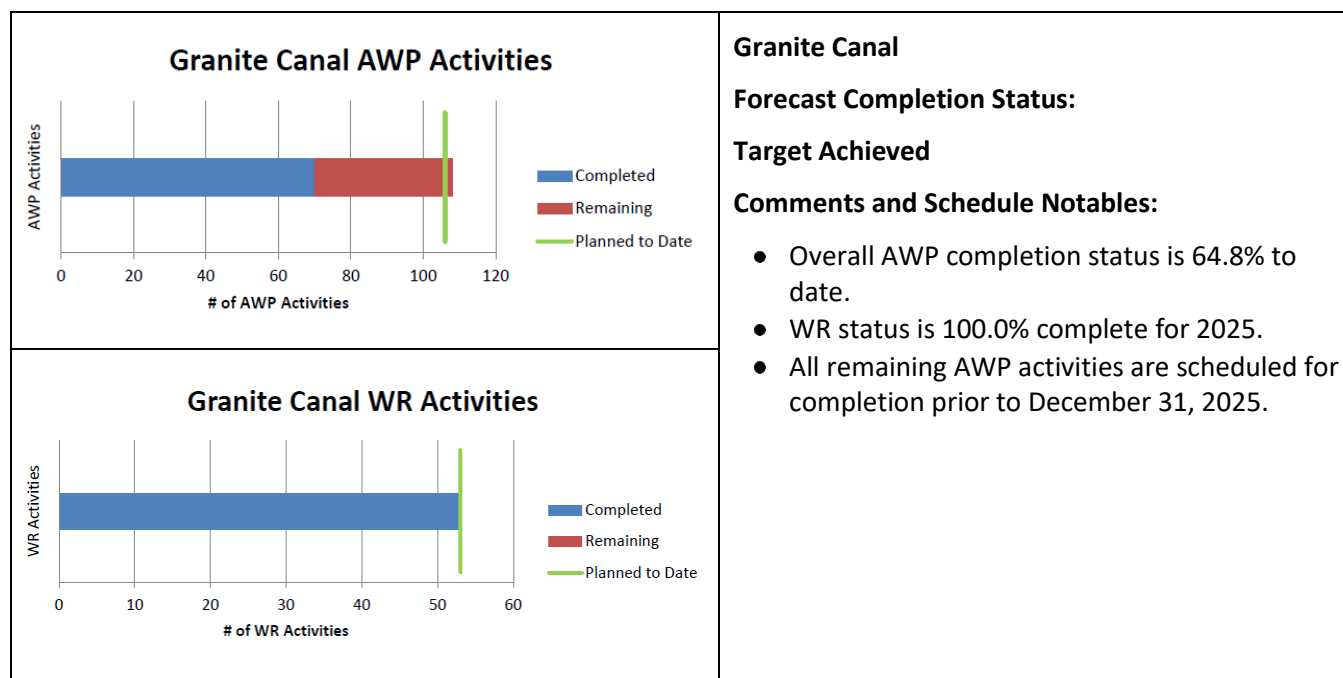
The status of AWP and WR execution at hydraulic generation facilities is summarized in the following charts, including:

- Bay d’Espoir Hydroelectric Generating Station (“Bay d’Espoir”);
- Cat Arm Hydroelectric Generating Station (“Cat Arm”);
- Hinds Lake Hydroelectric Generating Station (“Hinds Lake”);
- Paradise River Hydroelectric Generating Station (“Paradise River”);
- Upper Salmon Hydroelectric Generating Station (“Upper Salmon”); and
- Granite Canal Hydroelectric Generating Station (“Granite Canal”).









1 4.2 Critical Spares

2 As shown in Table 3, all critical spares for hydraulic generation are in stock.²⁴

Table 3: Critical Spares for Hydraulic Generation

Status	Quantity
In Stock	1,228
Procurement Ongoing	0
Total	1,228

3 4.3 Plant and Equipment Testing

4 WR testing of generating equipment in hydraulic generation is focused primarily around annual unit
 5 maintenance outages. Following these annual outages, units are run up and synchronized and all
 6 systems are verified before the unit's operating status is determined and preparedness is confirmed.
 7 Unit load tests are also performed as system conditions permit. The WR testing protocol includes the
 8 testing of appropriate Balance of Plant components.

²⁴ While minor deficiencies remain on Upper Salmon T2 Spare, this unit can enter service as required.

The status of plant and equipment testing for hydraulic generation is indicated in Appendix E. All inspection and testing of hydraulic generating facilities was complete by December 1, 2025, with the exception of Bay d’Espoir Units 1 and 2. All remaining plant and equipment testing are scheduled for completion upon the return to service of Units 1 and 2.

4.4 Risk and Risk Mitigation

Existing risk to WR and/or reliable operations related to Hydro’s Hydraulic Generation assets are discussed in the sections that follow.

4.4.1 Bay d’Espoir Penstocks

As a result of previous ruptures of the Bay d’Espoir Penstocks, with the most recent being September 2019, Hydro decided to complete annual inspections of Bay d’Espoir Penstocks 1, 2, and 3 to monitor penstock condition and ensure reliability in the short-term. One notable change in 2025 is the removal of Bay d’Espoir Penstock 1 from the annual inspection program, since it is currently undergoing major capital investment to extend the reliable service life, which includes inspection activities.²⁵

Penstock 2 was inspected in May 2025; during the inspection, two new indications were discovered and repaired. As well, four indications discovered in 2024, which posed no material concerns at that time, were also repaired during the 2025 inspection.

Penstock 3 was inspected in November 2025; during the inspection, six new indications were discovered. In consultation with Hydro’s third-party inspector, it was determined the indications posed no material concerns at this time and the penstock could safely be returned to service.

Although Hydro has mitigated the risk of penstock failure to the extent possible, there is residual risk that a failure could occur on Penstocks 2 or 3 before further life extension work is completed. Modifications remain in place, which are designed to limit the amount of rough zone operation, as well as a more prescriptive operating regime for Units 5 and 6 due to the results of annual inspections of

²⁵ In Board Order No. P.U. 6(2023), Hydro received approval for the refurbishment of Penstock 1 at Bay d’Espoir in 2023, and the project is now complete. Following completion of required commissioning activities, Bay d’Espoir Bay d’Espoir Units 2 and 1 are expected to return to service on December 22 and January 12, respectively.

Penstock 3 in recent years.²⁶ Hydro has estimated a 13- to 23-day repair timeline depending on circumstances, should a new failure occur, and has continued to take proactive measures to reduce generating unit downtime in the event of failure.

4.4.2 Hinds Lake Unit Vibration and Shaft Seal Leakage

The Hinds Lake unit has been experiencing higher-than-normal vibration levels and shaft seal leakage rates, which has resulted in operational modifications.²⁷ Inspection and interventions were completed during the annual planned maintenance outage, which began on November 2 and concluded November 27, 2025.

While work on the unit in 2025 did not yield reductions in unit vibration, information gathered during the outage has provided clarification on the current settings for the bearing clearance of the unit. Based on this information, the Hinds Lake Unit will be available at full capacity this coming winter.²⁸

Hydro continues to monitor both issues, and to mitigate risk, has proceeded with the procurement of bearing components and replacement parts for the shaft seal to ensure they are on hand in the event an outage is required. A plan has been detailed for 2026 to replace the shaft seal and rebuild the bearing, which is expected to assist in reducing unit vibration levels.

5.0 Muskrat Falls Assets

5.1 Annual Work Plan and Winter Readiness Status

The status of AWP and WR execution for the Muskrat Falls Assets is summarized in the following charts, including:

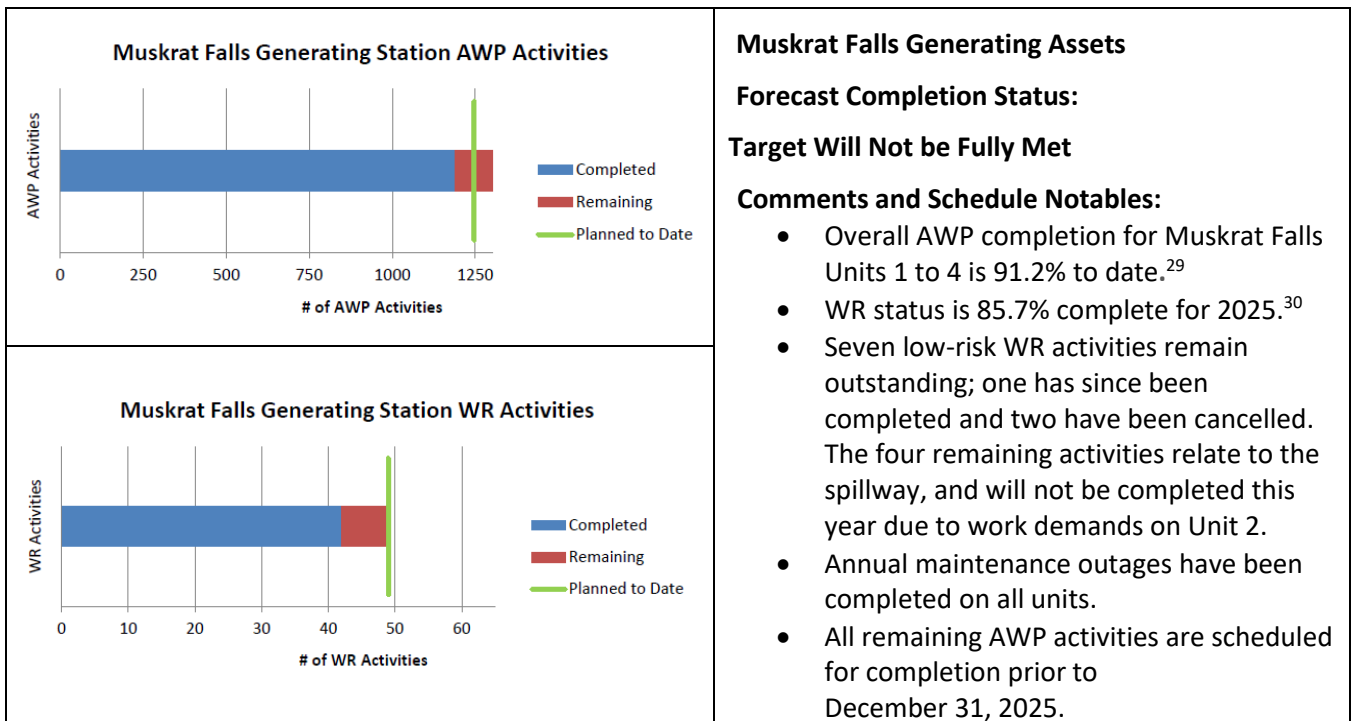
- Muskrat Falls Hydroelectric Generating Station (“Muskrat Falls”);
- Labrador-Island Link;
- Labrador Transmission Assets (“LTA”); and

²⁶ Under this operating regime, once dispatched, Units 5 and 6 are limited to a minimum loading of 50 MW and are not cycled or shut down as part of normal system operations. In previous years, operational modifications were in place on Penstock 1 (ie. Units 1 and 2); however, these modifications will no longer be required after capital investment is completed in 2025.

²⁷ Under this operating regime, once dispatched, the Hinds Lake Unit is fixed at 22 MW to reduce the impact of elevated vibration levels.

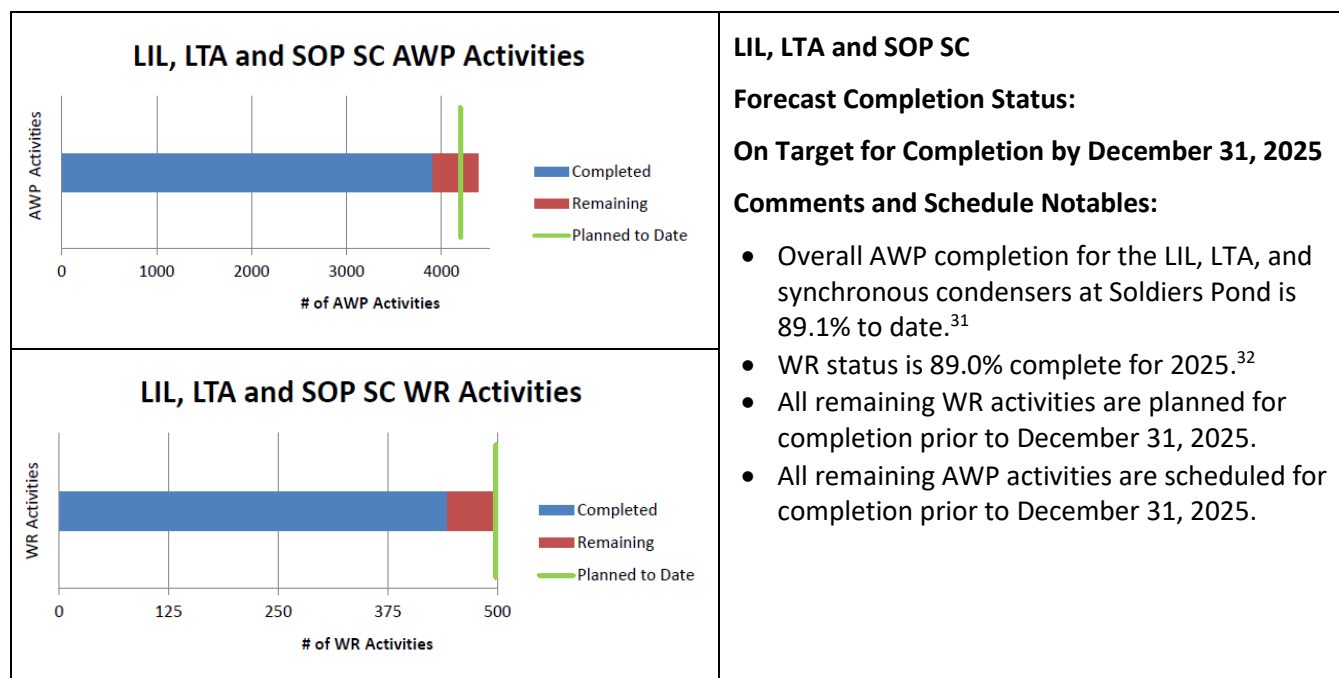
²⁸ Generally, the unit is safe to operate if vibration is less than 50% of the bearing diametrical clearance. This clearance was confirmed for the Hinds Lake Unit during the 2025 outage.

- 1 ○ Soldiers Pond Synchronous Condensers (“SOP SC”).
- 2 LIL will be available for bipole operation up to 700 MW this winter. Subject to the completion of high-
- 3 power testing, the LIL will be able to be operated up to 900 MW as system conditions permit. Hydro has
- 4 determined that the high-power test of the LIL will be postponed until later in the winter as a result of
- 5 its continued focus on WR activities and prioritization of reliable service to customers during the winter
- 6 period, including supporting reservoir levels to meet peak load requirements.
- 7 As the Muskrat Falls assets are in early operation, and considering trends in the occurrence of break-in
- 8 work, the timing and frequency of the OEM recommended PM activities and the scheduling of
- 9 maintenance resources are under review to determine an optimal AWP schedule.



²⁹ AWP activity status is as of November 30, 2025.

³⁰ WR activity status is as of December 2, 2025.



5.2 Critical Spares

A significant fire in spring 2024 in the community of Happy Valley-Goose Bay resulted in the total loss of the storage facility housing Hydro's Muskrat Falls generation critical spares. As a result, a significant effort has been undertaken to replenish the critical spares inventory, and Hydro has in stock nearly three-quarters of its critical spares. The remaining parts are at various steps within the procurement process.

The status of critical spares for Muskrat Falls generation is provided in Table 4 and Appendix F contains a detailed list of spares for which procurement is ongoing. Hydro has prioritized ordering of items based on WR, and continues to evaluate its identification of critical spares to set an appropriate target for the purpose of WR. 348 items are at various steps within the procurement process, with 73 items expected to be delivered prior to year end.

Table 4: Critical Spares for Muskrat Falls Generation

Status	Quantity
In Stock	1,076
Procurement Ongoing	348
Total	1,424

³¹ AWP activity status is as of November 30, 2025.

³² WR activity status is as of November 30, 2025.

5.3 Plant and Equipment Testing

WR testing of generating equipment in hydraulic generation is focused primarily around annual unit maintenance outages. Following these annual outages, units are run up and synchronized and all systems are verified before the unit's operating status is determined and preparedness is confirmed. Unit load tests are also performed as system conditions permit. The WR testing protocol includes the testing of appropriate Balance of Plant components.

The status of equipment and plant testing for Muskrat Falls generating assets is indicated in Appendix G. All inspection and testing of hydraulic generating facilities was completed upon the return to service of Unit 1 on December 5, 2025.

5.4 Risk and Risk Mitigation

Existing risk to WR and/or reliable operations related to these assets is discussed in the sections that follow.

5.4.1 Muskrat Falls Unit 1 Intake – Concrete Spalling

During the 2024 planned annual outage to Unit 1, concrete debris was observed in the turbine scroll case. Further inspection indicated some scuffing on the wicket gate lower operating ring caused by the passage of this debris through the turbine, which has since been repaired. This damage did not affect the unit's output or availability.

Remote operated vehicle inspection of the intake civil works identified an area where concrete had cracked and dislodged. In October 2024, a specialized team assessed the condition of the remaining concrete in the area where spalling had been observed. Upon completion of further concrete cutting and removal, sounding of the entire Intake Bay 3 lintel beam was completed with no further areas identified for remedial action. Unit 1 was returned to service on October 16, 2024, with a final repair to the intake civil works planned during the 2025 annual outage.

Due to the unforeseen extension of the planned outage to repair the Muskrat Falls Unit 2 turbine runner, there was insufficient time to complete final repairs on the Unit 1 intake structures in 2025. An inspection to assess the current condition of the intake civil works was carried out during the 2025 annual outage for Unit 1; during the inspection, some minor issues were found and rectified. A further

remote access assessment was completed in late November 2025, which found no major risks. The annual maintenance outage for Unit 1 in 2026 will have time allotted to complete the repairs.

To mitigate risk should a similar incident occur this coming winter, Hydro has a response plan in place, and has proceeded with the procurement of required materials to ensure they are on hand in the event a repair is required.

5.4.2 Optical Ground Wires Tower Peak and Top Plate Design

Since 2022, several incidents of damage to the optical ground wires (“OPGW”) tower peaks occurred in heavy ice loading conditions, and there were two failures at the connection of the OPGW top plate during an icing event on the line in December 2022. The incidents involving these tower components did not cause a prolonged LIL outage; however, brief outages were required to repair the damage.³³

As a result, a new design to reinforce tower peaks and replace the impacted top plates has been completed. Installation work to rectify the tower peaks and two remaining top plates is expected to begin in 2026 with expected completion in 2028.³⁴ To mitigate risk to near-term reliability, Hydro has its Emergency Response Plan in place, and has proceeded with the procurement of required materials to ensure they are on hand in the event a repair is required.

5.4.3 Electrode Conductors

During December 2022, March 2024, and January 2025 there were issues with the electrode conductor during significant ice loading, the root cause of which was determined to be overloading due to ice and ice shedding.

Three alternative suspension clamp designs were installed on the electrode conductor at ten structures, and will be inspected yearly for performance. An assessment of the electrode suspension assembly and a re-design of the assembly was completed in 2025, with the assemblies to be purchased and installed

³³ As the OPGW relates to communications functionality, Hydro does not anticipate that further occurrences of similar damage would result in a prolonged power interruption or customer outage.

³⁴ Analysis confirmed that 63 towers across two tower types (A3 and A4) were identified to have top plates replaced; as of the end of 2024, 61 of 63 were replaced, which represents all A3 towers. The two remaining top plates are on A4 tower types.

as required through a capital project. Additional conductor testing has been completed from these incidents, with further recommendations outlined within the most recent investigation report.³⁵

To mitigate risk to near-term reliability, Hydro has its Emergency Response Plan in place, and has proceeded with the procurement of required materials to ensure they are on hand in the event a repair is required.

5.4.4 DCCT Cold Weather Operation

In 2023, the OEM and Hydro determined that extremely low air temperatures were influencing the measurement accuracy of some Direct Current Current Transformers (“DCCT”), resulting in false protection trips and power control issues on the LIL. The OEM identified the root cause of the issue to be a manufacturing defect with the Delay Coil Fiber Optical Cable located within the DCCTs; this issue occurred with a select batch of fiber optic cables, affecting six DCCTs at the Muskrat Falls HVdc Converter Station, which have since been replaced.³⁶

In November 2025, General Electric (“GE”) provided a revised plan to address DCCTs which have low risk indicators of the issues related to cold weather operation. GE has indicated that the plan includes working with a new DCCT provider and delivery of contractual spares in spring 2026. Hydro will continue to work with the OEM to ensure proper mitigation of the issue.

5.4.5 Cable Switching

As reported in Hydro’s final 2024–2025 Winter Readiness Report,³⁷ new equipment was successfully installed to mitigate cable switching transients at the LIL Transition Compounds in mid-October 2024. Since that time, Hydro has identified an icing issue with transition compound disconnects that can impact cable switching in winter conditions. A solution to resolve this issue is currently being fabricated, and will be finalized in the fourth quarter of 2025 in consultation with GE. Installation of the improved

³⁵ For further information, please refer to Attachment 1 of “Quarterly Report on Asset Performance in Support of Resource Adequacy for the Twelve Months Ended September 30, 2025”, Newfoundland and Labrador Hydro, October 31, 2025.

³⁶ One of these DCCTs has an operation rating to -40°C, and will be replaced with a DCCT rated to -50°C in late 2025 or early 2026, as system conditions permit.

³⁷ Reliability and Resource Adequacy Study Review – 2024–2025 Winter Readiness Planning Report – Final Report,” Newfoundland and Labrador Hydro, December 10, 2024.

ice guard design is planned for early 2026, as system conditions allow. In the interim, Hydro is developing operating procedures to ensure reliable operation in winter conditions.

5.4.6 Synchronous Condenser Brush Gear Assemblies

Brush equipment performance on the Soldiers Pond synchronous condensers decreased in December 2023, resulting in several scheduled outages to replace damaged brushes, springs and brush holders.

Hydro, in consultation with the OEMs for the brush equipment and the synchronous condensers, has been working to identify the root cause of the brush performance issues. Hydro has continued with the modified brush configurations and operational controls to ensure optimal operating conditions for patina development. These changes have had positive results with regards to brush performance in 2025.

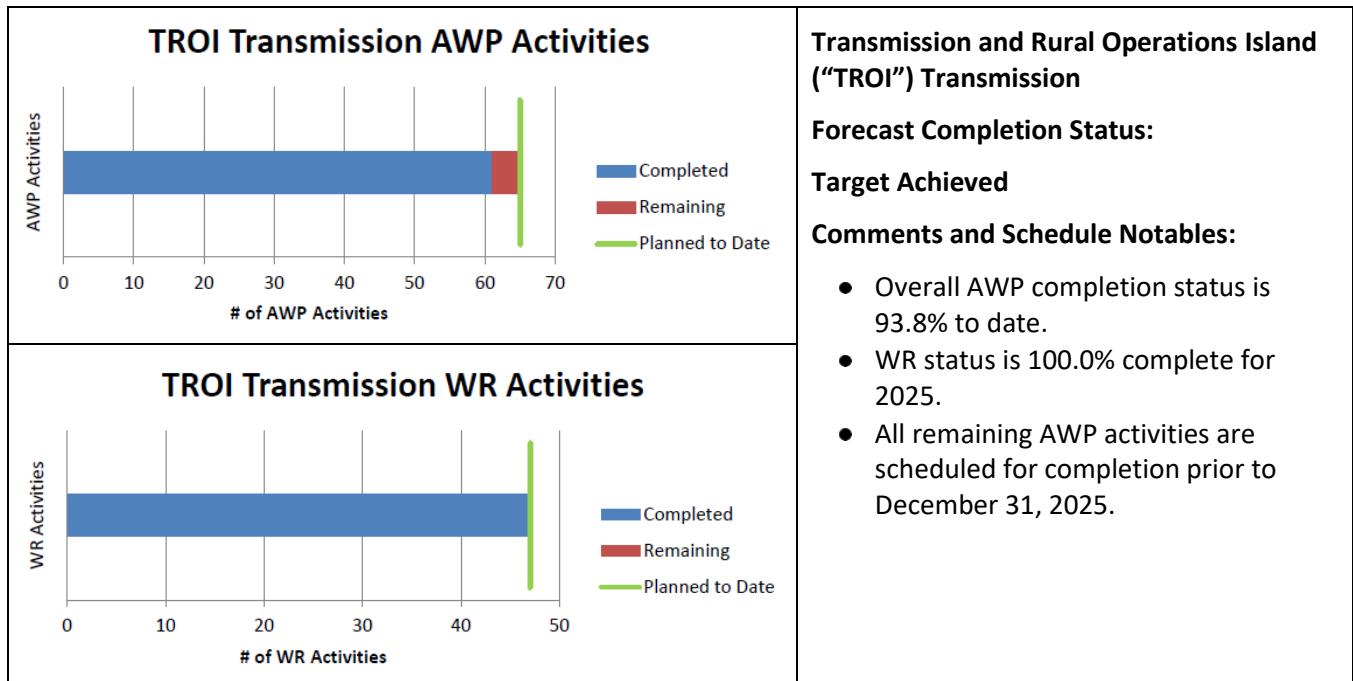
In spring 2024, the existing slip ring was removed from synchronous condenser 1 (“SC1”), and sent for machining to correct a runout causing excessive brush vibration. At this time, a modified brush with the ability to operate in a higher vibration environment was also provided by the OEM and installed. These modifications have resulted in improved performance to date. Hydro will continue to monitor the overall impact of these changes.

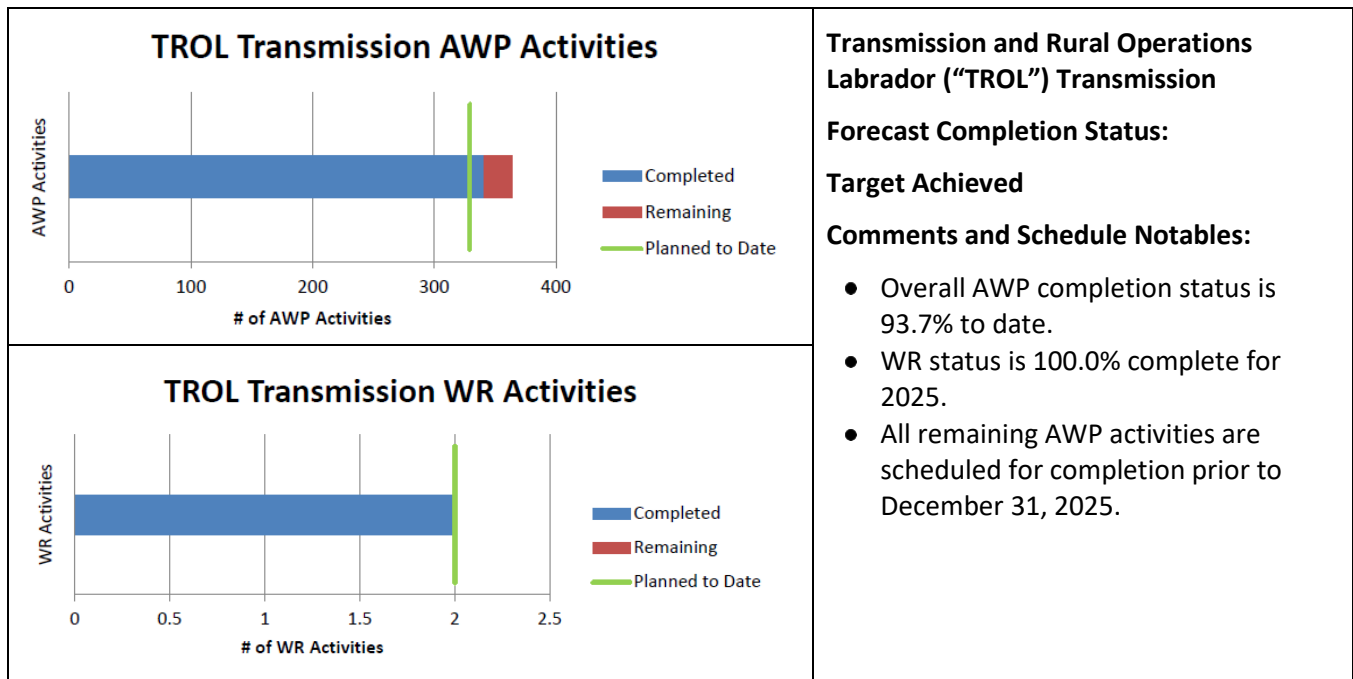
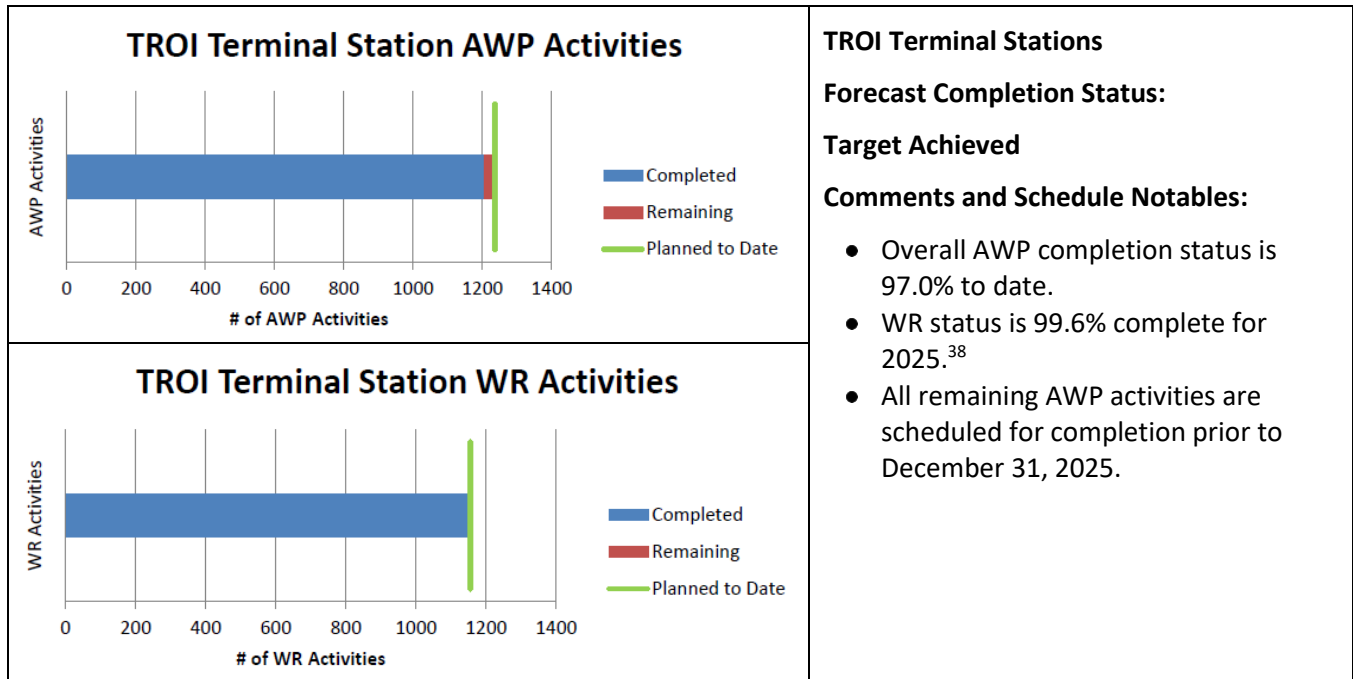
Corrective actions on all three units have yielded positive results, and changes performed in 2024 have aided in achieving acceptable brush performance across all three synchronous condensers. Inspections completed on SC1 and SC2 in November 2025 indicated continued improved performance from the brushgear. Inspection of the SC3 brushgear is planned in mid-December 2025.

6.0 Transmission and Terminal Stations

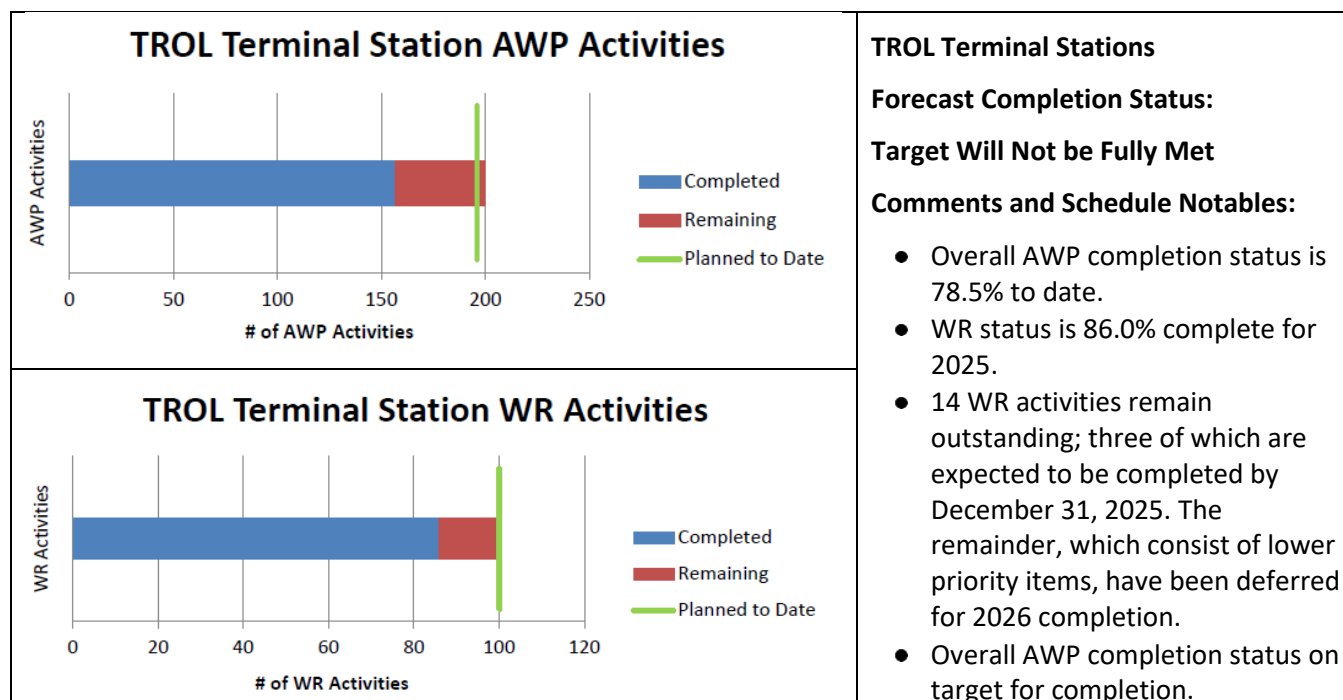
6.1 Annual Work Plan and Winter Readiness Status

The status of AWP and WR execution for transmission line and terminal station facilities on both the Island Interconnected System and the Labrador Interconnected System is summarized in the following charts.





³⁸ Remaining WR items are low risk and are scheduled for completion in 2026.



6.2 Plant and Equipment Testing

The AWP for both transmission and terminal stations are predominantly comprised of PMs and CMs, which inherently involve inspection and testing.³⁹ Examples of WR activities that are included in the AWP work scopes include the following:

- Transformer PMs and CMs;
- Annual exercises on all high-voltage circuit breakers;
- Exercise of 230 kV circuit breakers from protection during PM inspections;
- Infrared scans at all terminal stations;
- Annual ultrasonic leak testing on all terminal station air systems; and
- Annual helicopter patrol of transmission lines prior to the winter season.

³⁹ The “Terminal Station Asset Management Strategy – 2025 Update” document outlines the maintenance, refurbishment, and replacement criteria used by Hydro for terminal station assets. For the most recent report please refer to the “2026 Capital Budget Application,” Newfoundland and Labrador Hydro, July 15, 2025, sch. 1, app. F.

6.3 Risk and Risk Mitigation

Existing risk to WR and/or reliable operations related to Hydro’s Transmission and Terminal Station assets are discussed in the sections that follow.

6.3.1 Generator Step-Up Transformer Spares

Generator Step-Up Transformer 6 was repaired by the OEM in January 2024 following its failure in July 2023, and is available for use as a spare at Bay d’Espoir, Granite Canal, or Upper Salmon.⁴⁰

Hydro does not currently have a spare for the Holyrood TGS generator step-up transformers, and is in the process of procuring a spare.⁴¹ This spare is not expected to be delivered until the third quarter of 2028 due to increasing power transformer lead times.

6.3.2 Western Avalon Terminal Station – Replace Bushing Connecting the Gas Insulated Switchgear to Transmission Line TL267

The Western Avalon Terminal Station C phase bushing connecting the gas insulated switchgear to Transmission Line TL267 experienced a failed top terminal seal in July 2023. Leakage of its SF₆ insulating gas was stopped using a temporary seal of a metal repair composite material. While this temporary seal has been effective since its implementation in October 2023, if the leak was to reoccur prior to receiving the replacement bushing, it can be repaired through a short outage to TL267.

Hydro placed an order with the supplier in March 2024 and expected to receive the bushings in time for 2025 installation; however, the order was not properly processed by the supplier. This error has since been corrected and the new expected delivery date is September 2026. Once received, Hydro plans to install the bushings in 2026 when system conditions allow. To mitigate the risk of failure prior to the completion of the bushing replacement work, Hydro performs regular visual inspections, and will apply additional repair material as necessary.

⁴⁰ Cat Arm also has a spare on site; however, the spare can only be used at that facility due to the connection to the Gas Insulated Switchgear at that location.

⁴¹ “Purchase Spare Generator Step-Up Transformer,” Newfoundland and Labrador Hydro, September 21, 2023, approved in Board Order No. P.U. 28(2023).

6.3.1 Deer Lake Terminal Station – Refurbish T1 Tap Changer

Power transformer T1 at the Deer Lake Terminal Station requires tap changer refurbishment due to deteriorated condition. This refurbishment was scheduled for November 2025; however, unavailability of the OEM field technician requires deferral of this work to spring 2026.

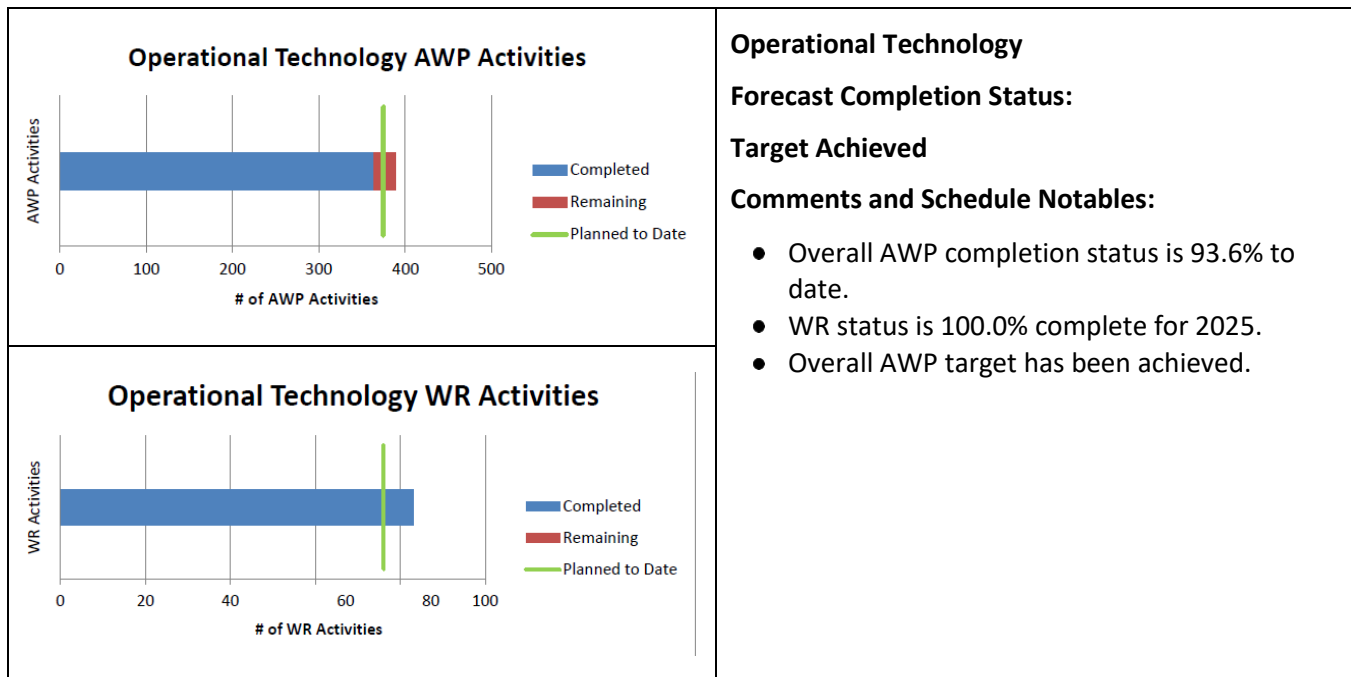
Condition data indicates that the severity of the deterioration is not increasing at this time. While refurbishment remains required, inspection of the tap changer by the OEM in September 2025 to determine the refurbishment scope did not identify imminent reliability concerns. To mitigate the risk of failure prior to the completion of the refurbishment work, Hydro will continue to monitor the condition of T1 by completing oil sample PM activities every three months.⁴²

7.0 Operational Technology

7.1 Annual Work Plan and Winter Readiness Status

The status of AWP and WR execution for Operational Technology is summarized in the following charts.

All planned WR activities were complete by December 1, 2025.



⁴² Hydro typically completes power transformer oil sample PM activities on an annual basis.

7.2 Plant and Equipment Testing

The AWP for Operational Technology is comprised of PMs and CMs, which inherently involve inspection and testing of various assets and systems. Examples of WR activities that are included in the AWP work scopes include the following:

- Annual Preventative Maintenance on all 48V battery banks; and
- Replenish nitrogen and generator fuel reserves at all microwave repeater sites.

8.0 Status of Winter Readiness for Capital Projects and Programs

The status of 2025 planned capital project and program scopes of work related to 2025–2026 WR for the Island Interconnected System and the Labrador Interconnected System are provided in Appendix A. Table 5 summarizes the status of the WR scope of these projects and programs by asset category. A discussion of the risk and risk mitigation associated with each capital project and program to be completed after December 1, 2025 has been provided within the sections above by operating area.

Table 5: Status of Planned Capital Projects and Programs with WR Scope

Asset Category	Complete as of December 1, 2025	Incomplete, Expected Completion after December 1, 2025	Total
Regulated Hydraulic Generation	-	3	3
Regulated Thermal Generation	4	2	6
Regulated Terminal Stations	2	1	3
Muskrat Falls Generation Assets ⁴³	-	-	-
Muskrat Falls Transmission Assets ⁴⁴	1	-	1
Total	7	6	13

As of December 1, 2025, WR scope for seven of the thirteen planned capital projects and programs is complete. A portion of the WR scope within six projects and programs is expected to be completed after December 1, 2025, including:

⁴³ There are currently no capital projects or programs that will impact 2025–2026 WR for Muskrat Falls Generation Assets.

⁴⁴ The Muskrat Falls Transmission assets include the LIL, LTA, and SOP SC.

- 1 • Overhaul Hydraulic Units (2025) – Bay d'Espoir⁴⁵
- 2 • Overhaul Major Pumps (2025)⁴⁶
- 3 • Upgrade Power Transformers (2024-2025)⁴⁷
- 4 • Overhaul Turbine and Valves – Unit 3 (2025) – Holyrood⁴⁸
- 5 • Refurbish Intake 1 - Bay d'Espoir⁴⁹
- 6 • Penstock 1 Life Extension⁵⁰
- 7 In addition to the planned scopes of work required for WR, Hydro is executing five unplanned scopes
- 8 under In-Service Failures Programs that are expected to be completed after December 1, 2025:
- 9 • Western Avalon Terminal Station – Replace Gas Insulated Switchgear TL267 Phase C Wall
- 10 Bushing⁵¹
- 11 • Hardwoods Gas Turbine – Spare Engine Overhaul⁵²
- 12 • Holyrood - Upgrade Unit 2 Boiler Flame Scanners⁵³
- 13 • Holyrood - Replace Air Compressor 3⁵⁴
- 14 • Holyrood - Replace Unit 3 Auxiliary Steam Desuperheater Spray Valve⁵⁵

⁴⁵ A portion of the overhaul scope for Bay d'Espoir Unit 2 will now be completed during the 2026 unit annual outage. Deferral of this work does not impose additional risk to unit operation.

⁴⁶ A portion of the pump overhaul scopes of work is complete, the remaining scope is scheduled to be completed prior to the return to service of Unit 3.

⁴⁷ Refurbishment of the T1 tap changer at the Deer Lake Terminal Station has been deferred to spring 2026.

⁴⁸ The expected return to service of Unit 3 is January 25, 2026.

⁴⁹ Construction is complete; final wet commissioning of the intake gate equipment is expected to occur after the return to service of Bay d'Espoir Unit 2 on December 22, 2025.

⁵⁰ Work on the Penstock 1 Life Extension project is now complete.

⁵¹ Hydro plans to install the bushings in 2026 when system conditions allow.

⁵² The engine is expected to be returned from the overhaul facility in late December 2025 or early January 2026.

⁵³ This work is expected to be completed during the next annual unit outage, or a maintenance outage earlier in 2026.

⁵⁴ The compressor is installed, commissioned, and in-service; however, some work remains to allow automatic sequencing of all compressors. This work is expected to be completed by the end of December 2025, and does not impact the availability of the compressor to deliver compressed air.

⁵⁵ Work to replace this valve is complete; however, commissioning cannot be completed until the return to service of Unit 3.

9.0 System Energy Capability

In order to reliably serve customers, Hydro maintains minimum limits for aggregate energy storage in its major hydroelectric reservoirs on the Island Interconnected System. These limits are developed annually to ensure that Hydro is capable of meeting customer demands throughout the year in the event of a repeat of Hydro’s critical dry sequence.⁵⁶ The limits are established such that Hydro will have sufficient hydraulic storage to be able to meet load in this critical sequence, or another less severe sequence, through the use of Island hydraulic production supplemented with maximized deliveries of energy to the Island from Labrador over the LIL. This includes energy from Muskrat Falls as well as recapture energy available to Hydro from the Churchill Falls Hydroelectric Generating Station.

The established limits assume that two Holyrood TGS units will be online, operating at minimum output (70 MW) during winter 2025–2026, and do not include the use of standby thermal generation to support reservoir storage, or the third unit at Holyrood TGS. The minimum storage methodology ensures Hydro’s reservoirs can continue to provide reliable least-cost service to customers in an environmentally responsible manner by supporting Island load with hydroelectric energy instead of thermal energy to the extent possible.⁵⁷

For the period May to October 2025, Hydro’s Island reservoirs experienced persistent below average inflows, as reported in Hydro’s Monthly Energy Supply reports. The entirety of the island portion of the province experienced some level of drought conditions throughout the summer and early fall. The portions of the province where Hydro’s reservoirs are located experienced moderate to extreme drought conditions as of the end of October based on Agriculture and Agri-Food Canada’s Canadian Drought Monitor. Overall inflows to the reservoirs of the Island Interconnected System were 68% below the historical average from May 2025 to October 2025.

Island system storage steadily declined due to ongoing low inflows from May to October 2025. However, there were five notable rain events throughout the month of November across Hydro’s reservoir system

⁵⁶ Hydro’s long-term critical dry sequence is defined as January 1959 to March 1962 (39 months). Other dry periods are also considered during this analysis to ensure that no other shorter-term historic dry sequence could result in insufficient storage.

⁵⁷ The limits also do not consider the availability of imports over the Maritime Link, though imports can provide an additional opportunity to supplement storage and economically reduce the amount of thermal generation required to maintain sufficient energy in storage in the event that import opportunities arise.

which resulted in an overall increase in system energy storage of 506 GWh from October 31, 2025 to November 30, 2025. A summary of these events are as follows:

- November 1, 2025 – 11-17 mm
- November 4-5, 2025 – 35-37 mm
- November 11-15, 2025 – 57-139 mm
- November 17-18, 2025 – 16-44 mm
- November 22-23, 2025 – 8-25 mm

As of November 30, 2025, aggregate reservoir storage was 1,513 GWh, which is 62% of the maximum operating level and 30% above the minimum storage limit. Figure 1 plots the 2024 and 2025 storage levels, minimum storage limits, maximum operating level storage, and the 20-year average aggregate storage for comparison. Please note that the minimum storage limits for 2025–2026 have been updated as of September 30, 2025 utilizing the LIL transmission limits associated with the “full” or final under-frequency load shedding (“UFLS”) scheme as opposed to the previously presented and “interim” UFLS scheme. The final UFLS scheme was implemented on November 24, 2025. The final UFLS scheme allows for incrementally more LIL energy to be brought to the Island without conversely needing to export more energy over the Maritime Link export path. This resulted in a small adjustment downwards of the monthly minimum storage limits.

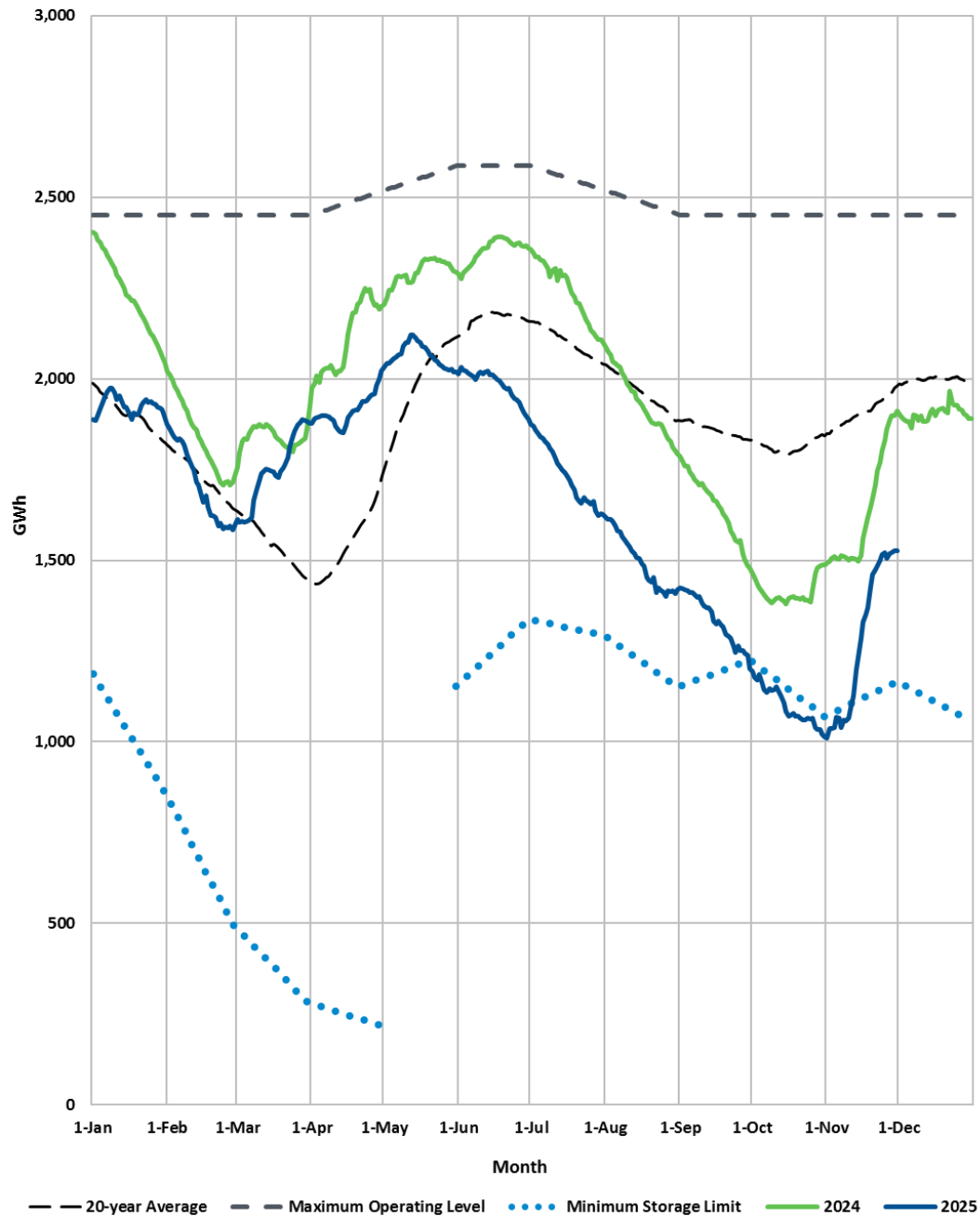


Figure 1: Total System Energy Storage⁵⁸

⁵⁸ Data points in Figure 1 represent storage at the beginning of each day. The body of the report text reports the end-of-day storage value, which results in a small difference between the storage data presented in the text and Figure 1.

Deliveries of energy to the Island Interconnected System from Labrador via the LIL were maximized to the extent possible to support Island reservoir storage until November 19, 2025 at which time deliveries were reduced to manage storage in the Lond Pond Reservoir. Exports from Island sources continue to be on hold since July 2025.

With the exception of a planned outage on Holyrood TGS Unit 1 from November 24 to 27, 2025, Holyrood TGS Units 1 and 2 were online during the month of November and operating above minimum, as system conditions required, until November 18, 2025, to support reservoir storage. Total energy production from Holyrood TGS for the month was 116.8 GWh.

On October 1, 2025, Hydro entered into a third six-month power purchase agreement with Corner Brook Pulp and Paper Limited (“CBPP”) as directed by the Government of Newfoundland and Labrador. The power purchase agreement with CBPP provides Hydro with 80 GWh of non-firm energy from October 1, 2025 through March 31, 2026 inclusive.⁵⁹

Currently, the Exploits firm capacity is derated to conserve reservoir storage. However, due to high inflows throughout November, the level of deration was reduced throughout the month of November 2025.

Hydro will continue to closely monitor Island storage and inflows at both the overall system and the individual reservoir levels to ensure the continued operation of its hydroelectric assets throughout the winter season at full rated output. At this time, additional thermal generation or the use of standby generation is not deemed to be required to support reservoir storage.

10.0 Conclusion

Hydro is confident in its ability to serve its customers during the 2025–2026 winter season. The results of Hydro's review of the year-to-date planned completion status of its AWP and WR for both the Labrador Interconnected System and the Island Interconnected System indicate that Hydro is sufficiently positioned for winter. While a small number of WR activities remain for completion, these activities are considered low risk.

⁵⁹ Hydro has also renewed a Capacity Assistance Agreement with Vale for the 2025-2026 winter season.

Hydro's critical spares status leading into the 2025–2026 winter season is strong. For Holyrood TGS, CTs, and hydraulic generation, 2,550 critical spares have been identified by Hydro's three generation operations areas. Of this total, 2,524 items are in stock (>99%) and 26 items are in the procurement process, and Hydro considers the risk to WR associated with critical spares which are not in stock to be low.

Additionally, for the Muskrat Falls generation assets, 1,424 critical spares have been identified; 1,076 items are in stock and 348 items are in the procurement process. As previously reported, a significant fire this spring in the community of Happy Valley-Goose Bay resulted in the total loss of the storage facility housing Hydro's Muskrat Falls generation critical spares.

Hydro's regulated generating sources were available by December 1, 2025, with the exception of Unit 3 at the Holyrood TGS, and Bay d'Espoir Units 1 and 2. Unit 3 is undergoing major overhaul of the steam turbine and valves, and Hydro has worked with the contractor to expedite its return to service date to late-January 2026. Bay d'Espoir Units 2 and 1 are expected to return to service on December 22, 2025 and January 12, 2026, respectively. Hydro will continue to monitor progress and mitigate work execution and operational risks.

Hydro continues to track remaining work activities and will provide an update to the Board in January 2026.

Appendix A

Status of Capital Projects and Programs Related to Winter Readiness





**Status of Planned Winter Readiness Scope
in 2025 Capital Projects and Programs
on the Island and Labrador Interconnected Systems**

Asset Category	Project or Program Title	Expected Completion of Winter Readiness Scope (10-Dec-2025 Update)
Regulated Hydraulic Generation	Bay d'Espoir - Refurbish Intake 1 (2024-2025)	23-Dec-2025
	Bay d'Espoir - Overhaul Hydraulic Units (2025)	2026 TBD
	Bay d'Espoir - Penstock 1 Life Extension	10-Dec-2025
Regulated Thermal Generation	Holyrood - Upgrade Unit 1 Control System (2024-2025)	Complete
	Holyrood - Overhaul Unit 1 Turbine Valves and Generator (2024)	Complete
	Holyrood - Perform Boiler Condition Assessment and Miscellaneous Upgrades (2025)	Complete
	Holyrood - Perform Level 2 Condition Assessment – Stage 1 & 2 Cooling Water Sump Structures (2025)	Complete
	Holyrood - Overhaul Major Pumps (2025)	31-Jan-2026
	Holyrood - Overhaul Turbine and Valves - Unit 3 (2025)	31-Jan-2026
Regulated Terminal Stations	Various Locations - Replace Terminal Station Battery Banks and Chargers (2024-2025)	Complete
	Wabush - Perform Major Inspection – Synchronous Condenser 2 (2025–2026)	Complete
	Various Locations - Upgrade Power Transformers (2024-2025)	31-May-2026
Muskrat Falls Transmission Assets	Various Locations – Replace Turnbuckles and Install Airflow Spoilers	Complete

Appendix B

Generation Outage Schedule



2025 Generation Outage Schedule ¹																					
Location	Asset	Month Week Starting Capacity (MW)	1	7	14	21	28	5	12	19	26	2	9	16	23	30	7	14	21	28	Scheduled Annual Maintenance Outages
Holyrood	GT ¹	170.0																			May 4 to September 17 / November 24 to 28
	GT ²	170.0																			June 8 to October 15 / December 10 to 13
	G3	150.0																			March 30, 2025 to January 31, 2026
	GT	123.5																			October 15 to November 12
Bay d'Espoir	G1	76.5																			March 31, 2025 to January 12, 2026
	G2	76.5																			March 31 to December 22
	G3	76.5																			
	G4	76.5																			November 14 to 23
	G5	76.5																			November 14 to 23
	G6	76.5																			October 17 to 31
	G7	154.4																			
Upper Salmon	Unit	84.0																		November 2 to November 28	
Granite Canal	Unit	40.0																			
Hinds Lake	Unit	75.0																			
Cat Arm	G1	67.0																			
G2	67.0																				
Paradise River	Unit	8.0																			
Hardwoods	GT	50.0																		November 25 to December 6	
Stephenville	GT	50.0																		September 2 to 12	
Star Lake	Unit	18.0																		September 8 to October 28	
Exploits	Units	63.0																			
CBPP	CBPP ⁴ CoGen	8.0																			
Hawkes Bay, Holyrood, St. Anthony	Diesels ⁵	24.7																			
Newfoundland Power	Hydro & Standby ⁶	119.3																			
CBPP	CBPP 60 Hz	99.1																			
Available Island Capacity ⁷		2,000.0	1,279.0	1,261.0	1,311.0	1,401.1	1,541.3	1,541.3	1,256.3	1,256.3	1,275.8	1,373.2	1,373.2	1,370.9	1,414.0	1,659.0	1,674.0	1,504.0	1,750.5	1,750.5	Based on 58.0 Hr Block Limits (Sept 1 - Nov 23) Based on Full UPLS Limits (Nov 24-Dec 31)
Maximum LIL Contribution to Island Reserves at Peak ⁸			306.7	316.3	15.0	0.0	0.0	15.0	366.1	366.1	372.5	386.2	392.6	397.9	511.7	511.7	511.7	511.7	511.7	511.7	
Forecasted Gross Island Peak Load			937.0	965.0	1008.7	1044.5	1088.3	1187.6	1239.3	1291.1	1334.8	1440.2	1490.7	1541.2	1591.7	1591.7	1841.0	1841.0	1841.0	1841.0	
Total Island Reserves ^{9,11}			698.7	662.2	367.3	406.6	503.0	418.7	433.1	381.3	363.5	319.3	375.1	327.6	434.0	679.0	444.7	274.7	521.2	521.2	
Largest Operating Unit			154.4	154.4	154.4	154.4	160.0	160.0	160.0	160.0	160.0	160.0	160.0	170.0	170.0	170.0	170.0	170.0	170.0	170.0	
Island N-1 Reserves ¹²			544.3	507.8	212.9	252.2	343.0	258.7	273.1	221.3	203.5	159.3	215.1	157.6	264.0	509.0	274.7	104.7	351.2	351.2	P1 outage Sept 15-21; Bipole outage Sept 21-30; P2 outage Oct 1-14
Labrador Island Link		700.0																			To Be Determined
Happy Valley		25																			November 04 to December 05
G1		206																			
G2		206																			August 28 to September 28
Muskat Falls																					September 30 to November 03
G3		206																			
G4		206																			

Legend

Available

Unavailable

Derailed

Unplanned Extension

White

Dark Blue

Light Blue

Grey

¹ Preventive maintenance items that require short duration outages are not reflected. They are planned in conjunction with system operation for an appropriate time.

² Holyrood G1 derailed to 100 MW due to issue with the main steam control valve sticking. Holyrood G1 will be taken offline to complete repairs during a scheduled outage on November 24 to 28. Unit to be returned to service at full rated capacity.

³ Holyrood G2 was derailed to 163 MW due to water flow issues. Water flow issue has been resolved and unit is rated for full capacity.

⁴ Corner Brook Pulp and Paper Limited ("CBPP").

⁵ 24.7 MW includes Hawkes Bay (5 MW), Holyrood Diesels (10 MW), and St. Anthony (9.7 MW).

⁶ 118.3 MW includes Newfoundland Power Hydro (77.8 MW) and Newfoundland Power Standby (41.5 MW).

⁷ Available Island Capacity only includes Island Resources and does not include any contribution from Soldiers Pond Labrador Island Link, Happy Valley or Muskrat Falls Units.

⁸ Maximum LIL contribution to island reserves at peak is a function of island load, LIL operating mode, number of available Muskrat Falls units and Maritime Link exports, and is measured at Soldier's Pond.

⁹ NL Hydro has the option to use the LIL economic limits during a monopole outage, which would increase the "Maximum LIL Contribution to Island Reserves at Peak."

¹⁰ September and October Total Island Reserves include CBPP Capacity Assistance (60 MW).

¹¹ September and December Total Island Reserves include CBPP Capacity Assistance (80 MW) and System Voltage Reduction (20 MW).

¹² The available N-1 reserves are the result of available generation and the forecasted island peak load. Outages are granted to proceed based on the short-term load forecast, which ensures there isn't a violation of the N-1 reserves should unit availability differ from what was previously planned.

Appendix C

Critical Spares Status Listing for Thermal Generation



Appendix C

Critical Spares Status Listing for Thermal Generation



Critical Spares - Thermal Generation¹

System	Asset		Critical Spare			Inventory Status
	Sub-System	Asset	Defined Spare	Notes	Inventory Description	
Raw and Makeup Water System & Water Treatment Plant	Demineralization System	Instrumentation/Controls	Sodium Monitor	Non-Stock is OK since there are non critical uses for this TX which can be	ANALYZER,ORION 2111LEN	Procurement Ongoing
Units 1 & 2 Air & Flue Gas	Rotary Air Heaters	Drive System	Coupling		COUPLING,STEELFLEX 1-1/8 S-4	Procurement Ongoing
Units 1 & 2 H.P. Feedwater System	Boiler Feed	Boiler Feed Pumps - Unit 1 E & W	Element Assembly (Volute)	Rebuildable Item If this is not in stock, it is out for rebuild.	ELEMENT ASSY,VOLUTE/ROTATING	Procurement Ongoing
Turbine Generator System Stage 2	Governor	Governor	Bushing		BUSHING,HITACHI	Procurement Ongoing
Turbine Generator System Stage 2	Governor	Governor	Bushing		BUSHING,HITACHI	Procurement Ongoing
Turbine Generator System Stage 2	Governor	Governor	Bearing		BEARING,HITACHI LOAD LIMIT	Procurement Ongoing
Turbine Generator System Stage 2	Governor	Governor	Bearing		BEARING,HITACHI LOAD LIMIT	Procurement Ongoing
Turbine Generator System Stage 2	Governor	Governor	Piston		PISTON RING,HITACHI	Procurement Ongoing
Turbine Generator System Stage 2	Governor	Governor	Bearing		BEARING,BALL HITACHI	Procurement Ongoing
Turbine Generator System Stage 2	Governor	Governor	Bearing		BEARING,BALL HITACHI	Procurement Ongoing
Turbine Generator System Stage 2	Governor	Governor	Oil Seal		OIL SEAL,HITACHI	Procurement Ongoing
Turbine Generator System Stage 2	Turbine Lube Oil System	Shaft Driven Oil Pump	O-Ring		O-RING,HITACHI	Procurement Ongoing
Turbine Generator System Stage 2	Turbine Lube Oil System	Shaft Driven Oil Pump	Ring		RING,HIT 10P 067-551-13	Procurement Ongoing
Turbine Generator System Stage 2	Turbine Lube Oil System	Shaft Driven Oil Pump	Ring		RING,HIT 10P 067-551-17	Procurement Ongoing
Turbine Generator System Stage 2	Turbine Lube Oil System	Shaft Driven Oil Pump	Ring		RING,HIT 10P 067-551-18	Procurement Ongoing
Turbine Generator System Stage 2	Turbine Lube Oil System	Auxiliary Oil Pump	Motor	Refurbishable item. If it is not in stock, it is out for refurbishment.	MOTOR,AUX OIL YELLOW	Procurement Ongoing
Turbine Generator System Stage 2	Main Steam Chest Assembly	Control Valve - Lower	Crosshead		CROSSHEAD,HIT 10P0612283	Procurement Ongoing
Turbine Generator System Stage 2	Main Steam Chest Assembly	Stop Valves	Gasket		GASKET,HIT 10P-038-197-16	Procurement Ongoing
Turbine Generator System Stage 2	Main Steam Chest Assembly	Stop Valves	Gasket		GASKET,HIT 10P-038-197-71	Procurement Ongoing
Turbine Generator System Stage 2	Main Steam Chest Assembly	Stop Valves	Seal Ring		SEAL RING,10P-038-197/14	Procurement Ongoing

Critical Spares - Thermal Generation¹

Asset			Critical Spare		
System	Sub-System	Asset	Defined Spare	Notes	Inventory Description
Turbine Generator System Stage 2	Reheat Steam Chest Assembly	Reheat/ICV Valves	Bushing		BUSHING,HIT 10P0611582
Turbine Generator System Stage 2	Reheat Steam Chest Assembly	Reheat/ICV Valves	Bushing		BUSHING,HIT 10P0611586
Turbine Generator System Stage 2	Reheat Steam Chest Assembly	Reheat/ICV Valves	Bushing		BUSHING,HIT 10P06115814
Turbine Generator System Stage 2	Reheat Steam Chest Assembly	Reheat/ICV Valves	Rivet		RIVET,HIT 10P-061-158-63
Turbine Generator System Stage 2	Reheat Steam Chest Assembly	Reheat/ICV Valves	Pin		PIN,HIT 10P06115872
Unit 3 H.P. Feedwater System	Boiler Feed	DA Recirculation Block Valve	Body		BODY,VALVE MASON 37-79264

¹ A detailed listing of all critical spares for Thermal Generation is available within Appendix C of "Reliability and Resource Adequacy Study Review - 2025–2026 Winter Readiness Planning Report," Newfoundland and Labrador Hydro, October 14, 2025, ("October WR Report").

Appendix D

Status of Winter Readiness Testing of Plant and Equipment Testing for Thermal Generation



2-Dec-25

Status of Test			
Unit 1	Unit 2	Unit 3	Balance of Plant

Plant: Holyrood Operations			
Following Annual Outages, Unit is Run Up, Synchronized and all Systems Verified Before Operating Status Determined, as per Energy Control Centre ("ECC"), Prior to Coming Winter Operating Season to Ensure Preparedness. A Unit Load Test is Performed at This Time.			
Black Start Test of the Black Start Systems is Performed Prior to the Winter Operating Season	N/A	N/A	Y
Perform Megger Testing of 600 V Motors Prior to the Winter Operating Season	N/A	N/A	N/A

Safety			
Boiler Service Pressure Test Performed as Required by Regulator	Y	Y	S/U
Safety Valves Testing as Required (Post Start-Up)	Y	Y	S/U
Boiler Operational Offline High/Low Drum Level Trip Tests	Y	Y	S/U
Hydrogen ("H ₂ ") Emergency Venting Valving	Y	Y	S/U
Breaker and Disconnect Operation Verified by Operations Department and Whitbourne Crew	Y	Y	S/U

Service Air and Instrument Air Systems			
All Stationary Air Compressors Available	N/A	N/A	N
All Portable Air Compressors Available	N/A	N/A	Y
Air Compressor Operational Checks Performed (e.g., Oil Levels, Cooling Water, etc.)	N/A	N/A	Y
Air Compressor Standby/Sequencing Capability	N/A	N/A	Y

Raw and Makeup Water System			
Quarry Brook Dam Integrity	N/A	N/A	Y
Raw Water Sump Water Supply Control Valve Operational	N/A	N/A	Y
Raw Water Pumps Operational	N/A	N/A	Y
Adequate Supply of Chemicals (1172, 1179, Polymer, etc.)	N/A	N/A	Y
1172, 1179, Polymer Injection Pumping Sets, Pumps, Valves, Lines, Agitators, etc. Operational	Y	Y	Y
Portable Diesel Pump Check of Emergency Plant Water Supply from Quarry Brook Dam	N/A	N/A	Y
Adequate and Readily Available Supply of Hoses for the Portable Diesel Pump from Quarry Brook Dam to Plant	N/A	N/A	Y

S/U - Final confirmation completed during Start Up. When possible, test also completed during annual outage.

Y - Test completed.

N/A - Not Applicable for specific unit or Balance of Plant, as indicated.

2-Dec-25

Status of Test			
Unit 1	Unit 2	Unit 3	Balance of Plant

Raw and Makeup Water System and Water Treatment Plant				
Instrumentation and Controls Operational	Y	Y	S/U	N/A
Analytical Rack Sample Cooler Filters Cleaned/Replaced as Required	Y	Y	S/U	N/A
Analytical Rack Sample Coolers Cooling Water In Service	Y	Y	S/U	N/A
Two Sample Cooling Water Pumps Availability	N/A	N/A	N/A	Y

Clarifier				
Clarifier Recirculator, Variable Frequency Drive ("VFD") Motor, VFD Controller	N/A	N/A	N/A	Y
Clarifier Recirculator Scraper	N/A	N/A	N/A	Y
Clarifier Badger Meter and Clearwell Instrumentation	N/A	N/A	N/A	Y

Sand Filters				
Sand Filters (Nos. 1, 2 and 3) Resin Integrity	N/A	N/A	N/A	Y
Sand Filters (Nos. 1, 2 and 3) Valve Operation (Normal and Backwashing, etc.)	N/A	N/A	N/A	Y
Two Clearwell Pumps Available	N/A	N/A	N/A	Y

Demineralization System				
Cation and Anion Trains (A, B and C) Resin Integrity	N/A	N/A	N/A	Y
Adequate Supply of Chemicals (Caustic Soda, Sulphuric Acid, 1172, 1179, Polymer, etc.)	N/A	N/A	N/A	Y
Sulphuric Acid and Caustic Soda Transfer Pumps, Valves, Lines, etc.	N/A	N/A	N/A	Y
Sulphuric Acid and Caustic Soda Regeneration Sets, Pumps, Valves, Lines, etc.	N/A	N/A	N/A	N
Caustic Injection Pumping Sets, Pumps, Valves, Lines, Agitators, etc.	N/A	N/A	N/A	Y
Brine Injection Pumping Sets, Pumps, Valves, Lines, Agitators, etc.	N/A	N/A	N/A	Y

S/U - Final confirmation completed during Start Up. When possible, test also completed during annual outage.
Y - Test completed.
N/A - Not Applicable for specific unit or Balance of Plant, as indicated.

2-Dec-25

Status of Test			
Unit 1	Unit 2	Unit 3	Balance of Plant

Reserve Feedwater System ("RFW")			
RFW Transfer Pump Oil Normal Operating Level	Y	Y	N/A
RFW Transfer Pumps Operational	Y	Y	N/A

Circulating Water ("CW") and Screen Wash System			
Vacuum Seal Pits Operational	Y	Y	N/A
All CW Travelling Screens Operational	Y	Y	N/A
CW Pump Motorized Discharge Valves 'Manual' and 'Auto', 'Cracked' Position Operation Verified	Y	Y	N/A
CW Pump Motors Oil Normal Operating Level	Y	Y	N/A
CW Pumps Operational	Y	Y	N/A
CW Pump Discharge Vacuum Breakers Operational	Y	Y	N/A
CW Travelling Screens Wash Pumps Operational	Y	Y	N/A
Condenser Flushed	Y	Y	N/A
Condenser Backwashed	Y	Y	N/A
General Service ("GS") Coolers Backwashed, Cleaned, etc.	Y	Y	N/A
Turbine/Generator ("TG") Coolers Backwashed, Cleaned, etc.	Y	Y	N/A
Vacuum Pump Coolers Backwashed, Cleaned, etc.	Y	Y	N/A

Boiler			
Pre-Outage Valve Survey Conducted of Boiler Drains	Y	Y	N/A
Service Pressure Test on Boiler for Tube Leaks	Y	Y	N/A

Condenser Air Extraction System			
Vacuum Pumps Available and Tested for Standby 'Auto-Start'	Y	Y	N/A
Vacuum Pump Seal Water Tank Water Level Controller Operational	Y	Y	N/A
Vacuum Pump Seal Water Pump Operational	Y	Y	N/A
Condenser Vacuum Breakers Operational	Y	Y	N/A

S/U - Final confirmation completed during Start Up. When possible, test also completed during annual outage.

Y - Test completed.

N/A - Not Applicable for specific unit or Balance of Plant, as indicated.

2-Dec-25

Status of Test			
Unit 1	Unit 2	Unit 3	Balance of Plant

High Pressure ("HP") Feedwater System			
Boiler Feed Pumps			
Boiler Feed Pumps Available	Y	Y	S/U
Boiler Feed Pump Oil Tank Normal Operating Level and Checked for Moisture Content	Y	Y	S/U
Boiler Feed Pump Auxiliary Oil Pumps Available	Y	Y	S/U
Boiler Feed Pump Suction Valves and Limit Switches	Y	Y	S/U
Boiler Feed Pump Emergency Gland Seal Injection Pump Available	Y	Y	S/U
Boiler Feed Pump Emergency Gland Seal Pump Oil Normal Operating Level	Y	Y	S/U
Boiler Feed Pump Gland Seal Water Available from the Emergency Pump and Condensate Extraction Pumps	Y	Y	S/U
Boiler Feed Pump Gland Seal Water Control Valve Operational	Y	Y	S/U
Boiler Feed Pump Gland Seal Water Drains Tank Level Float Operated Valve Operational (Units 1 and 2)	Y	Y	N/A
Boiler Feed Pump Gland Seal Water Transfer Pumps Operational (Units 1 and 2)	Y	Y	N/A
Boiler Feed Pump Gland Seal Water Drains Tank Level Control Valve Operational (Unit 3)	N/A	N/A	S/U
Boiler Feed Pump Gland Seal Water Transfer Pumps Operational (Unit 3)	N/A	N/A	S/U
Boiler Feed Pump Recirculation Control Valves Operational	Y	Y	S/U
Boiler Feed Pump Motorized Discharge Pilot and Main Valves Operational	Y	Y	S/U
Low Load Feedwater Isolator and Control Valves Operational	Y	Y	S/U
Main Feedwater Isolator and Control Valves Operational	Y	Y	S/U
HP Heater Motorized Valves (Inlet, Outlet and Bypass) Checked for Proper Operation, Sequencing, etc.	Y	Y	S/U

S/U - Final confirmation completed during Start Up. When possible, test also completed during annual outage.

Y - Test completed.

N/A - Not Applicable for specific unit or Balance of Plant, as indicated.

2-Dec-25

Status of Test			
Unit 1	Unit 2	Unit 3	Balance of Plant

Miscellaneous				
Economizer 'Manual' Operated Valve Operational	Y	Y	S/U	N/A
Economizer Motorized Recirculation Valve Operational (Unit 3)	N/A	N/A	S/U	N/A
Boiler Drum Level Instrumentation Operational	Y	Y	S/U	N/A
HP Heater Bled Steam Check Valves Operational	Y	Y	S/U	N/A
Start-Up Desuperheater Steam and Water Valving Operation/Position Verified	Y	Y	S/U	N/A
Main Steam and Reheat Steam Desuperheater Spray Water Isolators and Control Valves Operational	Y	Y	S/U	N/A
Auxiliary Steam Desuperheater Spray Water Control Valve Operational	Y	Y	S/U	N/A

Low Pressure ("Lp") Feedwater System				
Condenser				
Condenser Hotwell Makeup/Surplus Control Valves Operation Verified	Y	Y	S/U	N/A
Condenser Hotwell Makeup Motorized Isolating Valve Operation Verified	Y	Y	S/U	N/A
Condenser Dye Test for Leaks, as Required	Y	Y	S/U	N/A

Ammonia and Control System				
Adequate Supply in Place	Y	Y	S/U	N/A
Pumps Operational	Y	Y	S/U	N/A
Control Instrumentation Operational	Y	Y	S/U	N/A

Condensate Extraction Pumps				
Condensate Extraction Pumps Available	Y	Y	S/U	N/A
Condensate Extraction Pump Motors Bearing Oil Normal Operating Level	Y	Y	S/U	N/A
Condensate Extraction Pump Motor Cooling Water Available (Unit 3)	N/A	N/A	S/U	N/A

S/U - Final confirmation completed during Start Up. When possible, test also completed during annual outage.
Y - Test completed.
N/A - Not Applicable for specific unit or Balance of Plant, as indicated.

2-Dec-25

Status of Test			
Unit 1	Unit 2	Unit 3	Balance of Plant

Condensate Polishers			
Resin Integrity Verified	Y	Y	S/U
Two Polishers Rinsed and Available	Y	Y	S/U
Valve Operation (Normal and Regenerating, etc.)	Y	Y	S/U
Regeneration System Skids Available (Valving, Pumps, Flowmeters, Tanks, etc.)	Y	Y	S/U
Condensate Polisher Bypass Control Valve Operational	Y	Y	S/U

LP Heaters			
Low Load Recirculation Control Valve Operation	Y	Y	S/U

Deaerator			
Deaerator Normal Operating Level	Y	Y	S/U
Deaerator Steam Coil Operational	Y	Y	S/U
Deaerator Pegging Steam Operational	Y	Y	S/U
Deaerator Low Level Trip Test	Y	Y	S/U

Miscellaneous			
Condenser Flash Tank Control Valve Operation/Position	Y	Y	S/U
Turbine LP Exhaust Hood Spray Motorized Valve Operation	Y	Y	S/U
Start-Up Desuperheater Steam and Water Valving Operational (Units 1 and 2)	Y	Y	N/A
LP Heater Bled Steam Check Valves Operational	Y	Y	S/U

Bled Steam and Heater Drains System			
LP and HP Instrumentation and Control Operational	Y	Y	S/U
LP and HP Heater Level Control Operational	Y	Y	S/U
LP Heater Condensate Drains Pumps Operational	N	N	N
#4 HP Heater Condensate Drains Pump Operational	N	Y	S/U

S/U - Final confirmation completed during Start Up. When possible, test also completed during annual outage.
Y - Test completed.
N/A - Not Applicable for specific unit or Balance of Plant, as indicated.

2-Dec-25

Status of Test			
Unit 1	Unit 2	Unit 3	Balance of Plant

Air and Flue Gas System			
Instrumentation and Control Operational	Y	Y	S/U
			N/A

Forced Draft ("FD") Fans and Air Dampers			
Two FD Fans Available	Y	Y	S/U
Bearing Oil Normal Operating Level	Y	Y	S/U
Cooling Water on to Fans	Y	Y	S/U
Stroke Variable Inlet Vanes	Y	Y	S/U
Stroke Discharge Dampers	Y	Y	S/U
FD Fan Motor Variable Speed Drives Operational	N/A	N/A	N/A
All Burner Auxiliary Air Dampers/Positioners Operation (Units 1 and 2)	Y	Y	N/A
All Elevation Air Flow Dampers/Positioners Operation (Unit 3)	N/A	N/A	S/U
			N/A

Rotary Air Heaters			
Rotary Air Heaters Operational	Y	Y	S/U
Rotary Air Heaters Bearing Oil (Top and Bottom) Normal Operating Level	Y	Y	S/U
Rotary Air Heaters Bearing Cooling Water On	Y	Y	S/U
Rotary Air Heaters Electric Motor Drives Operational	Y	Y	S/U
Rotary Air Heaters Air Supply to Air Heater Air Motor Drives Open	Y	Y	S/U
Rotary Air Heaters Start-Up of Air Motor Drive Upon Loss of Alternating Current ("AC") Power Supply to the Normal Operating Electric Drive Motor	Y	Y	S/U
Rotary Air Heaters Steam Supply Control Valves Operational (*Note: Two Steam Supplies on Units 1 and 2)	Y	Y	S/U
Rotary Air Heaters Sootblowers Operational	Y	Y	S/U
			N/A

Boiler Sootblowing System			
Sootblower Control Panel Operational	Y	Y	S/U
Sootblowers Steam Supply Control Valve Operational	Y	Y	S/U
Sootblowers Overhauled During Annual Outage Verify Operation (e.g., Rotation, Travel Advancing/Retracting from Furnace, Leaks, etc.) First Time Unit is Placed Online	Y	Y	S/U
			N/A

S/U - Final confirmation completed during Start Up. When possible, test also completed during annual outage.

Y - Test completed.

N/A - Not Applicable for specific unit or Balance of Plant, as indicated.

2-Dec-25

Status of Test			
Unit 1	Unit 2	Unit 3	Balance of Plant

Light Fuel Oil System			
Hydro Pad Operational	Y	Y	S/U
Light Oil Pumps Available	Y	Y	S/U
Pumps, Valves (Including Control and Trip), Lines, Strainers, Pressure (Locally and UCB)	Y	Y	S/U
Check Light Oil Supply and Return Lines to/from Plant Respectively	Y	Y	S/U
Suction Strainers Cleaned with Covers Secured	Y	Y	S/U
Ignitors Cleaned, Securely in Place with Associated Lines Securely Fastened	Y	Y	S/U
Ignitors all Checked for Operation During Unit Start-Up (e.g. Ignitor Control Box, Valve Operation, Lighting, etc.)	Y	Y	S/U

Fuel Oil Delivery System, Auxiliary Steam and Fuel Oil Piping System			
Adequate Heavy Oil Storage	N/A	N/A	N/A
Heavy Oil Piping from Dock to Tankfarm, Tankfarm to Plant Day Tank and Day Tank to Heavy Oil Sets	N/A	N/A	N/A
Adequate Light Oil Storage	N/A	N/A	N/A
Light Oil Piping from Road Tanker Transfer Pump to Tanks and from Tanks to Light Oil Sets in Plant	N/A	N/A	N/A
All Storage Tanks Suction Heaters Available when Required	N/A	N/A	N/A
All Storage Tanks Platform Heaters Available when Required	N/A	N/A	N/A
Auxiliary Steam for Suction Heaters Available	N/A	N/A	N/A
Auxiliary Steam for Platform Heaters Available	N/A	N/A	N/A
Auxiliary Steam for Heat Tracing Available	N/A	N/A	N/A
Electrical Heat Tracing for Fuel Oil Lines Available	N/A	N/A	N/A
Day Tank Supply Line Trip Valve Tested	N/A	N/A	N/A
Day Tank Available to Receive Oil	N/A	N/A	N/A
Day Tank Steam Coil Available	N/A	N/A	N/A

S/U - Final confirmation completed during Start Up. When possible, test also completed during annual outage.
Y - Test completed.
N/A - Not Applicable for specific unit or Balance of Plant, as indicated.

2-Dec-25

	Status of Test		
	Unit 1	Unit 2	Unit 3
Fuel (Heavy) Oil System			
Fuel Oil Heating Sets	Y	Y	S/U
Fuel Oil Heaters Available	Y	Y	S/U
Fuel Oil Heaters Cleaned and Inspected	Y	Y	S/U
Steam Supply to Heavy Oil Set Heaters Available as Required	Y	Y	S/U
Fuel Oil Heaters Temperature Steam Control Valve Operational	Y	Y	S/U
Suction Strainers Cleaned (including standby and extras) with Covers Secured	Y	Y	S/U
Fuel Oil Accumulator Operational	N	N	S/U
Fuel Oil Pumps Available	Y	Y	S/U
Pumps 'Auto-Start' Check Offline	Y	Y	S/U
Header Pressure Control Valve Operational	Y	Y	S/U
Fuel Oil Meter Operational	Y	Y	S/U

Fuel Oil Supply Control, Trip, Long and Short Recirculation Valves			
Fuel Oil Supply Control Valve Operational	Y	Y	S/U
Fuel Oil Trip Valve Operational	Y	Y	S/U
Fuel Oil Long Recirculation Valve Operational (Units 1 and 2)	Y	Y	N/A
Fuel Oil Short Recirculation Valve Operational (Units 1 and 2)	Y	Y	N/A
Elevation Fuel Oil Trip Valves Operational (Unit 3)	N/A	N/A	S/U
Elevation Fuel Oil Minimum Supply Control Valves Operational (Unit 3)	N/A	N/A	S/U
Elevation Fuel Oil Supply Control Valves Operational (Unit 3)	N/A	N/A	S/U
Main Fuel Oil Recirculation Valve Operational (Unit 3)	N/A	N/A	S/U
Elevation Recirculation Valves Operational (Unit 3)	N/A	N/A	S/U

Burners			
All Burners Cleaned, Securely in Place with Associated Lines Securely Fastened	Y	Y	S/U
All Burners Checked for Operation During Unit Start-Up (e.g. Advancing/Retracting, Valve Operation, Lighting, etc.)	Y	Y	S/U
All Burner Tilts Checked for Operation (Units 1 and 2)	Y	Y	N/A

S/U - Final confirmation completed during Start Up. When possible, test also completed during annual outage.
Y - Test completed.
N/A - Not Applicable for specific unit or Balance of Plant, as indicated.

2-Dec-25

Status of Test			
Unit 1	Unit 2	Unit 3	Balance of Plant

Fuel Additive System			
Adequate Supply Available	N/A	N/A	N/A
Pumps Available	N/A	N/A	N/A
Tanks, Agitators, etc. Available	N/A	N/A	N/A

GS System			
GS Heat Exchangers Backwashed, Cleaned, etc.	Y	Y	S/U
Stage I GS Plate Cooler Strainers Cleaned	Y	Y	S/U
Stage I GS 'Auto-Clean' Strainer Operational	N/A	N/A	N/A
Stage I GS Duplex Strainers Cleaned	Y	Y	N/A
GS Pump Suction Strainers Cleaned	Y	Y	S/U
GS Pump Oil Normal Operating Level	Y	Y	S/U
GS Pumps Available and Tested for Standby 'Auto-Start'	Y	Y	S/U

TG Auxiliary Cooling System			
TG Head Tank Normal Operating Level	Y	Y	S/U
Turbine Lube Oil Coolers Operational	Y	Y	S/U
TG Heat Exchangers Backwashed, Cleaned, etc.	Y	Y	S/U
TG Pump Oil Normal Operating Level	Y	Y	S/U
TG Pumps Available and Tested for Standby 'Auto-Start'	Y	Y	S/U

S/U - Final confirmation completed during Start Up. When possible, test also completed during annual outage.

Y - Test completed.

N/A - Not Applicable for specific unit or Balance of Plant, as indicated.

2-Dec-25

Status of Test			
Unit 1	Unit 2	Unit 3	Balance of Plant

TG System			
Hydraulic System Units 1 and 2			
Hydraulic System Accumulators Operational	Y	Y	N/A
Hydraulic System Storage Tank Normal Operating Level and Checked for Moisture Content	Y	Y	N/A
Hydraulic System Storage Tank Air Purging of Moisture in Place	Y	Y	N/A
Hydraulic Set Primary, Secondary Filter Indications Ok	Y	Y	N/A
Two Hydraulic Fluid Pumps Availability	Y	Y	N/A
Hydraulic Pump Auto-Start Testing	Y	Y	N/A
Two Hydraulic Fluid Pump Coolers Availability	Y	Y	N/A

Valves			
Pre-Outage Valve Survey Conducted of Boiler Drains	Y	Y	S/U
Turbine Main Stop Valve Testing (Units 1 and 2)	Y	Y	N/A
Turbine Two Main Stop Valves Testing (Unit 3)	N/A	N/A	S/U
Turbine 'Left-Hand' and 'Right Hand' Reheat Stop and Intercept Control Valve Testing Verified	Y	Y	S/U
Turbine Six Main Control Valve Operation (Units 1 and 2)	Y	Y	N/A
Turbine Four Main Control Valve Operation (Unit 3)	N/A	N/A	S/U
Turbine Blowdown Valve Operation	Y	Y	S/U



Hollyrood Thermal Generating Station
Winter Readiness Testing

2-Dec-25

Status of Test			
Unit 1	Unit 2	Unit 3	Balance of Plant

Lubricating System				
Lube Oil Tank Normal Operating Level and Checked for Moisture Content	Y	Y	S/U	N/A
Portable Centrifuge Operational	N/A	N/A	N/A	N/A
Lube Oil Tank Vapor Extractor Operation	Y	Y	S/U	N/A
Bowser Oil Conditioner Vapor Extractor Operation (Units 1 and 2)	S/U	S/U	N/A	N/A
Two ac Lube Oil Pumps Available and Tested for Standby 'Auto-Start' (Units 1 and 2)	Y	Y	N/A	N/A
Direct Current ("DC") Pump Testing and Starting from UCB (Units 1 and 2)	Y	Y	N/A	N/A
Verify Discharge Pressure of Each AC Lube Oil Pumps (Locally and UCB) (Units 1 and 2)	Y	Y	N/A	N/A
Verify Discharge Pressure of DC Lube Oil Pump (Locally and UCB) (Units 1 and 2)	Y	Y	N/A	N/A
Jacking Oil Pump Testing and Starting from UCB (Unit 3)	N/A	N/A	S/U	N/A
Verify Discharge Pressure of Jacking Oil Pump (Locally and UCB)	N/A	N/A	S/U	N/A
Auxiliary Oil Pump ("AOP") Testing and Starting from UCB and Turbine Lube Oil Tank (Unit 3)	N/A	N/A	S/U	N/A
Verify Discharge Pressure of AOP Pump (Locally and UCB) (Unit 3)	N/A	N/A	S/U	N/A
AC Pump Testing and Starting from UCB and Turbine Lube Oil Tank (Unit 3)	N/A	N/A	S/U	N/A
Verify Discharge Pressure of AC Flushing Oil Pump (Locally and UCB) (Unit 3)	N/A	N/A	S/U	N/A
DC Pump Testing and Starting from UCB and Turbine Lube Oil Tank (Unit 3)	N/A	N/A	S/U	N/A
Verify Discharge Pressure of DC Flushing Oil Pump (Locally and UCB) (Unit 3)	N/A	N/A	S/U	N/A

Barring/Turning Gear				
Turning Gear Operation Verified		Y	Y	S/U
Perform Trip Test of Turning Gear		Y	Y	S/U
				N/A
				N/A

Miscellaneous				
Steam Seal Regulator Operational	Y	Y	Y	S/U
Operational Online/Offline Overspeed Trip Tests	Y	Y	Y	S/U

S/U - Final confirmation completed during Start Up. When possible, test also completed during annual outage.

Y - Test completed.

N/A - Not Applicable for specific unit or Balance of Plant, as indicated.

2-Dec-25

Status of Test			
Unit 1	Unit 2	Unit 3	Balance of Plant

H₂ and Carbon Dioxide ("CO₂") System			
H₂ Generation and Storage System			
System in Operation	N/A	N/A	Y
Electrolyzer/H ₂ Generator Operational	N/A	N/A	N/A
Chiller Operational	N/A	N/A	N/A
DI Water Purifier Operational	N/A	N/A	N/A

H₂ and CO₂ Bulk Packs			
Adequate H ₂ Bulk Packs on Hand for Contingency Purposes	N/A	N/A	Y
CO ₂ Adequate Bulk Packs on Hand	N/A	N/A	Y

Generator			
Generator Exciter Operation Checked Offline and Online	Y	Y	S/U
Seal Oil System Tested with 'Air' on Generator in Preparation for Leak Testing	Y	Y	S/U
Seal Oil Regulator Operational	Y	Y	S/U
AC Seal Oil Pumps Available and Tested for Standby 'Auto-Start' (Units 1 and 2)	Y	Y	N/A
AC Seal Oil Pump Available (Unit 3)	N/A	N/A	S/U
DC Seal Oil Pump Available and Tested for Standby 'Auto-Start'	Y	Y	S/U
Seal Oil Vacuum Pumps Available	Y	Y	S/U
Vacuum Tank Level Control Operational	Y	Y	S/U
H ₂ System in Operation and/or Adequate Bulk Packs on Hand for Contingency Purposes	N/A	N/A	Y
CO ₂ Adequate Bulk Packs on Hand	N/A	N/A	Y
Leak Testing Performed Prior to 'Gassing Up' Generator	Y	Y	S/U
Purity, Dew Point, etc. Instrumentation Operation Verified	Y	Y	S/U

S/U - Final confirmation completed during Start Up. When possible, test also completed during annual outage.
Y - Test completed.
N/A - Not Applicable for specific unit or Balance of Plant, as indicated.

2-Dec-25

Status of Test			
Unit 1	Unit 2	Unit 3	Balance of Plant

Powerhouse and Switchyard Single Line			
Plant 129 V System			
129 V Battery Banks Checked Stage I and II	Y	Y	Y
129 V Battery Chargers Checked Stage I and II	Y	Y	Y
Plant 258 V System			
258 V Battery Banks Checked Stage I and II	Y	Y	Y
258 V Battery Chargers Checked Stage I and II	Y	Y	Y
Plant Uninterrupted Power Supplies ("UPS")			
Nos. 1, 2, 3 and 4 UPS including Batteries, Cooling Fans, etc., Checked	Y	Y	Y
Emergency Diesel Generators			
Stage I and II Emergency Diesel Generators Tested for Emergency Stop	N/A	N/A	N/A
Stage I and II Emergency Diesel Generators Tested for Manual and Auto-Start Operation along with Auto Breaker Closure as well as Emergency Manual Closing of Breakers	N/A	N/A	N/A
Diesel Bus Tie Breaker Operation Verified	N/A	N/A	N/A
Fire Protection System			
All Fire Protection Zones in Service	N/A	N/A	N/A
Fire Control/Alarm Panel Status	N/A	N/A	N/A
Fire Alarm Beacons Operational	N/A	N/A	N/A
Diesel Fire Pump Checked for 'Manual' and 'Auto' Start, etc.	N/A	N/A	N/A
Diesel Fire Pump Controller, Charger and Battery Check	N/A	N/A	N/A
Electric Fire Pump Checked for 'Manual' and 'Auto' Start, etc.	N/A	N/A	N/A
Electric Fire Pump Controller Check	N/A	N/A	N/A
Public Address System Status	N/A	N/A	N/A

S/U - Final confirmation completed during Start Up. When possible, test also completed during annual outage.

Y - Test completed.

N/A - Not Applicable for specific unit or Balance of Plant, as indicated.



Holyrood Thermal Generating Station
Winter Readiness Testing

2-Dec-25

Status of Test			
Unit 1	Unit 2	Unit 3	Balance of Plant

Holyrood Main Powerhouse			
Backup ECC and Guardhouse Propane Generator	N/A	N/A	N/A
			Y

Plant Air Conditioning System			
Control and Relay Rooms	N/A	N/A	N/A
UPS #1 Room	N/A	N/A	N/A
Generator Excitation and UPS #'s 2, 3 and 4 Room (Unit 3)	N/A	N/A	N/A
			Y

Plant Heating Steam			
All Systems Operational for When Required	N/A	N/A	N/A
			Y

S/U - Final confirmation completed during Start Up. When possible, test also completed during annual outage.
 Y - Test completed.
 N/A - Not Applicable for specific unit or Balance of Plant, as indicated.

Appendix E

Status of Winter Readiness Testing of Plant and Equipment for Hydraulic Generation





Bay d'Espoir Hydraulic Generating Facility
1-Dec-25

	Status of Test							Balance of Plant Powerhouse 1	Balance of Plant Powerhouse 2
	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7		
20-Dec	20-Dec	✓		✓	✓	✓	✓	N/A	N/A
Following Annual Outages, Unit is Run Up, Synchronized and all Systems Verified Before Operating Status Determined, as per Energy Control Centre, Prior to Coming Winter Operating Season to Ensure Preparedness. A Unit Load Test is Performed at this Time.									
All Alternate Sources of Station Service Tested and Available	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓
Spherical Valves									
Turbine Main Stop Valve Annual PM Complete	✓	✓	✓	✓	✓	✓	✓	N/A	N/A
Turbine Main Stop Valve Operational	✓	✓	✓	✓	✓	✓	✓	N/A	N/A
Service Air and Instrument Air Systems Compressors									
All Stationary Air Compressors Available	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓
Air Compressor Operational Checks Performed (e.g., Oil Levels, Cooling Water, etc.)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓
Air Compressor Sequencing Capability Available	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓
High Pressure Compressors Available	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓
Low Pressure Compressor Available	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓
Instrumentation Control and Alarms Operational	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓
Turbine/Generator ("TG") Cooling Water Systems									
Cooling Water Pumps Available	✓	✓	✓	✓	✓	✓	✓	N/A	N/A
Emergency Cooling Water Available Penstock Supply	✓	✓	✓	✓	✓	✓	✓	N/A	N/A
Cooling Water System Available	✓	✓	✓	✓	✓	✓	✓	N/A	N/A
Shaft Seal System Available	✓	✓	✓	✓	✓	✓	✓	N/A	N/A
Cooling Water Strainers Inspected and Available	✓	✓	✓	✓	✓	✓	✓	N/A	N/A
TG Governor System									
Hydraulic System Accumulators Operational	✓	✓	✓	✓	✓	✓	✓	N/A	N/A
Governor System Annual PM Complete	✓	✓	✓	✓	✓	✓	✓	N/A	N/A
Governor System Available	✓	✓	✓	✓	✓	✓	✓	N/A	N/A
Hydraulic Pump(s) Available	✓	✓	✓	✓	✓	✓	✓	N/A	N/A
Generator									
Generator Exciter Operation Checked Offline and Online	20-Dec	20-Dec	✓	✓	✓	✓	✓	N/A	N/A
Generator Exciter Available	✓	✓	✓	✓	✓	✓	✓	N/A	N/A
Brush Condition Verified	✓	✓	✓	✓	✓	✓	✓	N/A	N/A

S/U - Final confirmation completed during Start-Up. When possible, test also completed during annual outage.
✓ - Test completed
N/A - Not Applicable



Bay d'Espoir Hydraulic Generating Facility
1-Dec-25

Status of Test									
Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Balance of Plant Powerhouse 1	Balance of Plant Powerhouse 2	
Lubricating System									
Portable Oil Pump (Jacking)	✓	✓	✓	✓	✓	N/A	N/A	N/A	N/A
Oil Level System Generator Metering Available	✓	✓	✓	✓	✓	✓	N/A	N/A	N/A
Oil Level System Turbine Metering Available	✓	✓	✓	✓	✓	✓	N/A	N/A	N/A
Alternating Current High Pressure Jacking Oil Pump Available Automatic	N/A	N/A	N/A	N/A	N/A	✓	N/A	N/A	N/A
Switchyard/Terminal Station									
Breakers and Disconnects Operational	✓	✓	✓	✓	✓	✓	N/A	N/A	N/A
Operate Breaker PM Complete (TRO)	✓	✓	✓	✓	✓	✓	N/A	N/A	N/A
Intake									
Water Elevation	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓	✓
Trashrack System	✓	✓	✓	✓	✓	✓	N/A	N/A	N/A
Gate Operation	✓	✓	✓	✓	✓	✓	N/A	N/A	N/A
Surge Tank									
Heating System	20-Dec	20-Dec	✓	✓	✓	N/A	N/A	N/A	N/A
Alarm Systems	20-Dec	20-Dec	✓	✓	✓	N/A	N/A	N/A	N/A
Spillway									
Water Elevation	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓	✓
Gate Heating/Ice Away Unit	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓	✓
Gate Operation	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓	✓
Emergency (Backup) Diesel Generator	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓	✓
Emergency Lift Operation and Tested	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓	✓
Battery Banks And Battery Chargers									
Plant 129 V System									
129 V Battery Banks Checked	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓	✓
129 V Battery Chargers	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓	✓
129 V Battery Banks Available	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓	✓
Plant Uninterrupted Power Supplies ("UPS")									
UPS Power Supplies (Inverter NWS)	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓	N/A

S/U - Final confirmation completed during Start-Up. When possible, test also completed during annual outage.
✓ - Test completed
N/A - Not Applicable



Bay d'Espoir Hydraulic Generating Facility
1-Dec-25

Status of Test									
Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Balance of Plant Powerhouse 1	Balance of Plant Powerhouse 2	
Emergency Diesel Generators									
Emergency Diesel Generators Tested for Emergency Stop	N/A	N/A	N/A	N/A	N/A	N/A	✓		N/A
Emergency Diesel Generators Tested for Manual and Auto-Start Operation along with Auto Breaker Closure as well as Emergency Manual Closing of Breakers	N/A	N/A	N/A	N/A	N/A	N/A	✓		✓
Alternate Alternating Current Sources Available	N/A	N/A	N/A	N/A	N/A	N/A	✓		✓
Station Services Available	N/A	N/A	N/A	N/A	N/A	N/A	✓		✓
Transfer Alternate Source	N/A	N/A	N/A	N/A	N/A	N/A	✓		✓
Plant Air Conditioning System									
Control Rooms	N/A	N/A	N/A	N/A	N/A	N/A	✓		N/A
Communications Rooms	N/A	N/A	N/A	N/A	N/A	N/A	✓		N/A
Plant Heating Steam									
All Systems Operational for when Required	N/A	N/A	N/A	N/A	N/A	N/A	✓		✓

S/U - Final confirmation completed during Start-Up. When possible, test also completed during annual outage.
✓ - Test completed
N/A - Not Applicable



Hydraulic Generating Stations (Remote Units)
1-Dec-25

	Status of Test									
	Cat Arm		Hinds Lake		Upper Salmon		Granite Canal		Paradise River	
	Unit 1	Unit 2	Balance of Plant Powerhouse	Unit 1	Balance of Plant	Unit 1	Balance of Plant	Unit 1	Balance of Plant	Unit 1
Following Annual Outages, Unit is Run Up, Synchronized and all Systems Verified Before Operating Status Determined, as per Energy Control Centre, Prior to Coming Winter Operating Season to Ensure Preparedness. A Unit Load Test is Performed at this Time.	✓	✓	N/A	✓	N/A	✓	N/A	✓	N/A	✓
	N/A	N/A	✓	N/A	✓	N/A	✓	N/A	✓	N/A
	N/A	N/A	✓	N/A	✓	N/A	✓	N/A	✓	N/A
All Alternate Sources of Station Service Tested and Available	N/A	N/A	✓	N/A	✓	N/A	✓	N/A	✓	N/A
Spherical Valves										
Turbine Main Stop Valve Annual PM Complete	✓	✓	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Turbine Main Stop Valve Operational	✓	✓	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Service Air and Instrument Air Systems Compressors										
All Stationary Air Compressors Available	N/A	N/A	✓	N/A	✓	N/A	✓	N/A	✓	N/A
Air Compressor Operational Checks Performed (e.g., Oil Levels, Cooling Water, etc.)	N/A	N/A	✓	N/A	✓	N/A	✓	N/A	✓	N/A
Air Compressor Sequencing Capability Available	N/A	N/A	✓	N/A	✓	N/A	✓	N/A	✓	N/A
High Pressure Compressors Available	N/A	N/A	✓	N/A	✓	N/A	✓	N/A	✓	N/A
Low Pressure Compressor Available	N/A	N/A	✓	N/A	✓	N/A	✓	N/A	✓	N/A
Instrumentation Control and Alarms Operational	N/A	N/A	✓	N/A	✓	N/A	✓	N/A	✓	N/A
Turbine/Generator ("TG") Cooling Water Systems										
Cooling Water Pumps Available	✓	✓	N/A	✓	N/A	✓	N/A	✓	N/A	✓
Emergency Cooling Water Available Penstock Supply	✓	✓	N/A	✓	✓	✓	✓	✓	✓	✓
Cooling Water System Available	✓	✓	N/A	✓	✓	✓	✓	✓	✓	✓
TG Pumps Available and Tested for Auto/Manual Start	N/A	N/A	N/A	✓	N/A	✓	N/A	✓	N/A	✓
Shaft Seal System Available	N/A	N/A	N/A	✓	N/A	✓	N/A	✓	N/A	✓
Rotary Strainer Inspected and Available	✓	✓	N/A	✓	✓	✓	✓	✓	✓	✓
TG Governor System										
Hydraulic System Accumulators Operational	✓	✓	N/A	✓	N/A	✓	N/A	✓	N/A	✓
Governor System Annual PM Complete	✓	✓	N/A	✓	N/A	✓	N/A	✓	N/A	✓
Governor System Available	✓	✓	N/A	✓	N/A	✓	N/A	✓	N/A	✓
Hydraulic Pump(s) Available	✓	✓	N/A	✓	N/A	✓	N/A	✓	N/A	✓

S/U - Final confirmation completed during Start-Up. When possible, test also completed during annual outage.
✓ - Test completed
N/A - Not Applicable

Hydraulic Generating Stations (Remote Units) 1-Dec-25

Status of Test									
Cat Arm			Hinds Lake		Upper Salmon		Granite Canal		Paradise River
Unit 1	Unit 2	Balance of Plant Powerhouse	Unit 1	Balance of Plant	Unit 1	Balance of Plant	Unit 1	Balance of Plant	Unit 1
Generator									
Generator Exciter Operation Checked Offline and Online	✓	✓	N/A	✓	N/A	✓	✓	N/A	✓
Generator Exciter Available	✓	✓	N/A	✓	N/A	✓	✓	N/A	✓
Brush Condition Verified	✓	✓	N/A	✓	N/A	✓	✓	N/A	✓
Lubricating System									
Oil Level System Generator Metering Available	✓	✓	N/A	✓	N/A	✓	✓	N/A	✓
Oil Level System Turbine Metering Available	✓	✓	N/A	✓	N/A	✓	✓	N/A	✓
Alternating Current High Pressure Jacking Oil Pump Available Automatic	✓	✓	N/A	✓	N/A	✓	✓	N/A	✓
Miscellaneous									
Breakers and Disconnects Operational	✓	✓	N/A	✓	N/A	✓	✓	N/A	✓
Operate Breaker PM Complete (TRO)	✓	✓	N/A	✓	N/A	✓	✓	N/A	✓
Control Structure									
Water Elevation	N/A	N/A	N/A	✓	N/A	N/A	N/A	N/A	N/A
Gate Operation	N/A	N/A	N/A	✓	N/A	N/A	N/A	N/A	N/A
Intake									
Water Elevation	N/A	N/A	✓	✓	N/A	✓	N/A	✓	✓
Trashrack System	✓	✓	N/A	✓	N/A	✓	✓	N/A	✓
Gate Operation	✓	✓	N/A	✓	N/A	✓	✓	N/A	✓
Spillway/Bypass									
Water Elevation	N/A	N/A	N/A	✓	N/A	✓	N/A	✓	N/A
Gate Heating/Ice Away Unit	N/A	N/A	N/A	✓	N/A	✓	N/A	✓	N/A
Gate Operation	N/A	N/A	N/A	✓	N/A	✓	N/A	✓	N/A
Emergency (Backup) Diesel Generator	N/A	N/A	N/A	✓	N/A	✓	N/A	✓	N/A
Emergency Lift Operation and Tested	N/A	N/A	N/A	✓	N/A	✓	N/A	✓	N/A

S/U - Final confirmation completed during Start-Up. When possible, test also completed during annual outage.
 ✓ - Test completed
 N/A - Not Applicable

Hydraulic Generating Stations (Remote Units) 1-Dec-25

Status of Test									
Cat Arm			Hinds Lake		Upper Salmon		Granite Canal		Paradise River
Unit 1	Unit 2	Balance of Plant Powerhouse	Unit 1	Balance of Plant	Unit 1	Balance of Plant	Unit 1	Balance of Plant	Unit 1
Battery Banks And Battery Chargers									
Plant 129 V System									
129 V Battery Banks Checked	N/A	N/A	✓	✓	N/A	✓	N/A	✓	N/A
129 V Battery Chargers	N/A	N/A	✓	✓	N/A	✓	N/A	✓	N/A
129 V Battery Banks Available	N/A	N/A	✓	✓	N/A	✓	N/A	✓	N/A
Plant 48 V System (Network Services)									
48 V Battery Banks Checked	N/A	N/A	✓	✓	N/A	✓	N/A	✓	N/A
Emergency Diesel Generators									
Emergency Diesel Generators Tested for Emergency Stop	N/A	N/A	✓	✓	N/A	✓	N/A	✓	N/A
Emergency Diesel Generators Tested for Manual and Auto-Start Operation along with Auto Breaker Closure as well as Emergency Manual Closing of Breakers	N/A	N/A	✓	✓	N/A	✓	N/A	✓	N/A
Alternate Alternating Current Sources Available	N/A	N/A	✓	✓	N/A	✓	N/A	✓	N/A
Station Services Available	N/A	N/A	✓	✓	N/A	✓	N/A	✓	N/A
Transfer Alternate Source	N/A	N/A	✓	✓	N/A	✓	N/A	✓	N/A
Plant Air Conditioning System									
Control Rooms	N/A	N/A	✓	✓	N/A	✓	N/A	✓	N/A
Communications Rooms	N/A	N/A	✓	✓	N/A	✓	N/A	✓	N/A
Plant Heating Steam									
All Systems Operational for when Required	N/A	N/A	✓	✓	N/A	✓	N/A	✓	N/A

S/U - Final confirmation completed during Start-Up. When possible, test also completed during annual outage.
 ✓ - Test completed
 N/A - Not Applicable

Appendix F

Critical Spares Status Listing for Muskrat Falls Generation





Critical Spares Stock Status¹
Muskrat Falls Generation
27-Nov-25

Critical Spare Component	Stock Status
SPRING, COIL ST14110	Procurement Ongoing
SHOE, SIDE GUIDE 60X16... 140	Procurement Ongoing
SHOE, SIDE GUIDE 60X16... 280	Procurement Ongoing
SHOE, SIDE GUIDE 140X49.150460	Procurement Ongoing
PROFILE, EDGE PROTECTION 3D	Procurement Ongoing
BUMPER, HYDRAULIC	Procurement Ongoing
BEARING, SPHERICAL ROLLER Ø260	Procurement Ongoing
SEAL, RADIAL SHAFT 480X520X20	Procurement Ongoing
SEAL, RADIAL SHAFT 300X340X18	Procurement Ongoing
SEAL, RADIAL SHAFT 290X330X18	Procurement Ongoing
LOAD CELL, 25000LB	Procurement Ongoing
MOTOR, DRE100L4 M1A-TB180-CEX	Procurement Ongoing
BUFFER, CELLULAR BUFFER 160Ø	Procurement Ongoing
COUPLING, ROTARY SWITCH	Procurement Ongoing
BUMPER, HYDRAULIC TYPE 21-150	Procurement Ongoing
DRIVE, VARIABLE FREQUENCY 60HP	Procurement Ongoing
POWER SUPPLY, 15VDC, SINGLE	Procurement Ongoing
SHOES, COLLECTOR	Procurement Ongoing
BEARING, ROLLER, 20MM ID	Procurement Ongoing
DISC, BRAKE K 145-400X30	Procurement Ongoing
CYLINDER, HYDRAULIC	Procurement Ongoing
BEARING, INBOARD SHAFT	Procurement Ongoing
TUBE, 12 X 2..... 6000	Procurement Ongoing
VALVE, CHECK 14 INCH BRAY	Procurement Ongoing
VALVE, CHECK 20 INCH BRAY	Procurement Ongoing
VALVE, CHECK 10 INCH 105MDT	Procurement Ongoing
VALVE, PRESSURE RELIEF	Procurement Ongoing
VALVE, SFTY RLF F85-6 0.5X1	Procurement Ongoing
VALVE, PRESS RELIEF 3L SERIES	Procurement Ongoing
VALVE, PRESS RELIEF LF530C	Procurement Ongoing
VALVE, DIRECTIONAL CONTROL	Procurement Ongoing
SOLENOID VALVE	Procurement Ongoing
VALVE, PROP. DIRECTIONAL	Procurement Ongoing
VALVE, PROP. DIRECTIONAL	Procurement Ongoing
VALVE, PROP. DIRECTIONAL	Procurement Ongoing
VALVE, PROP. DIRECTIONAL	Procurement Ongoing
VALVE, PROP. DIRECTIONAL	Procurement Ongoing
VALVE, BALL 1.25 INCH V-CONTROL	Procurement Ongoing



Critical Spares Stock Status¹
Muskrat Falls Generation
27-Nov-25

Critical Spare Component	Stock Status
KIT, VALVE DIAPHRAGM	Procurement Ongoing
VALVE,BUTTERFLY 20 INCH	Procurement Ongoing
VALVE,PRESS REDUCING 1.5INCH	Procurement Ongoing
VALVE,PRESS REDUCING 2 INCH	Procurement Ongoing
VALVE,THERMOSTATIC ETV200	Procurement Ongoing
GASKET, 55X61X1, DIN7603-CU	Procurement Ongoing
GASKET, ENCLOSURE COVER SEAL	Procurement Ongoing
O-RING, 50mm x 2mm, 444509	Procurement Ongoing
MOTOR, COMPOUND DRIVE ABB	Procurement Ongoing
O-RING, PRP 330-VITON	Procurement Ongoing
BRUSHES, CARBON ABB	Procurement Ongoing
RING, SEAL T20 280/260.... 14.6	Procurement Ongoing
GEAR, STRAIGHT TOOTH BEVEL ABB	Procurement Ongoing
VALVE, PILOT 110-125VDC ABB	Procurement Ongoing
COILS, OPEN & CLOSE ABB	Procurement Ongoing
SEAL, OIL BA 70-100-10, VITON	Procurement Ongoing
KIT, SEAL (NG50)	Procurement Ongoing
KIT, SEAL (NG63)	Procurement Ongoing
MOTOR, DISCONNECT DRIVE ABB	Procurement Ongoing
SEAL,AXIAL SHAFT 560ID 15H 25W	Procurement Ongoing
MOTOR, DISCONNECT GND SW ABB	Procurement Ongoing
J-SEAL,100X45X15 3400	Procurement Ongoing
ASSEMBLY, S1 GUIDE HEATER	Procurement Ongoing
MOTOR, GND SW GCB SIDE ABB	Procurement Ongoing
COOLER, OIL (HEAT EXCHANGER)	Procurement Ongoing
CHAMBER, ARCHING ABB	Procurement Ongoing
DRIVE, MOTOR HECS ABB	Procurement Ongoing
PUMP HEAD, 7GPM REVERSE	Procurement Ongoing
MOTOR, GOV. OIL PUMP	Procurement Ongoing
O-RING, 380mm x 8mm, 1447933	Procurement Ongoing
PUMP,DOM WATER 90GPM	Procurement Ongoing
O-RING, 70mm x 2mm, 49007084	Procurement Ongoing
O-RING, 60mm x 2mm, 444785	Procurement Ongoing
O-RING, 30mm x 2mm, 445653	Procurement Ongoing
O-RING, 99mm x 3mm, 445758	Procurement Ongoing
GASKET, K10.020	Procurement Ongoing
GASKET, 60X3 - GUMMI/RUBBER	Procurement Ongoing
GASKET, A27X32 - DIN7603-CU	Procurement Ongoing



Critical Spares Stock Status¹
Muskrat Falls Generation
27-Nov-25

Critical Spare Component	Stock Status
GASKET, K8.007-3	Procurement Ongoing
GASKET, AU.050	Procurement Ongoing
GASKET, A18X24, DIN7603-AL	Procurement Ongoing
GASKET, A12X18, DIN7603-AL	Procurement Ongoing
GASKET, A22X27, DIN7603-CU	Procurement Ongoing
GASKET, DIM.1 TYPE A, OILIT	Procurement Ongoing
GASKET, VG01.007	Procurement Ongoing
GASKET, K17.004-3	Procurement Ongoing
GASKET, DICHTRING 21X27X1,5	Procurement Ongoing
GASKET, ND2.011	Procurement Ongoing
GASKET, KD.027 (DIA 185)	Procurement Ongoing
GASKET, VG01.391 (DIA 185)	Procurement Ongoing
GASKET, 105X110X2, DIN7603-CU	Procurement Ongoing
GASKET, KD.027 (DIA 150)	Procurement Ongoing
GASKET, VG01.391 (DIA 150)	Procurement Ongoing
GASKET, 94X100X1, DIN7603-CU	Procurement Ongoing
GASKET, KM.027	Procurement Ongoing
GASKET, VG01.393	Procurement Ongoing
PLATE, DAMPER - DIS VLV 48CDD	Procurement Ongoing
RING, OIL SCRAPER (150)	Procurement Ongoing
RING, PISTON (150)	Procurement Ongoing
GASKET, 57/62X1, DIN7603-CU	Procurement Ongoing
SEPARATOR, FUEL WATER	Procurement Ongoing
CARTRIDGE, OIL SEPARATOR	Procurement Ongoing
GASKET, ND1.046	Procurement Ongoing
ASSEMBLY, FHP065 NON-BYPASS	Procurement Ongoing
VALVE, DISCHARGE LMF (DIA 185)	Procurement Ongoing
HEATER, SPACE - HEATREX	Procurement Ongoing
KIT, FAN (205 CFM, 6" ROUND)	Procurement Ongoing
PAD, BEARING, TURBINE GUIDE	Procurement Ongoing
VALVE, SUCTION LMF (DIA 185)	Procurement Ongoing
KIT REPAIR, SERVOMOTOR	Procurement Ongoing
VALVE, DISCHARGE LMF (DIA 150)	Procurement Ongoing
HOLDER,BRUSH,METRIC,POS 21	Procurement Ongoing
VALVE, SUCTION LMF (DIA 150)	Procurement Ongoing
DEVICE, AUTO SYNCHRONIZING	Procurement Ongoing
VALVE, DISCHARGE LMF (DIA 85)	Procurement Ongoing
LAMP, UV REPLACEMENT	Procurement Ongoing



Critical Spares Stock Status¹
Muskrat Falls Generation
27-Nov-25

Critical Spare Component	Stock Status
ISOLATOR, VIBRATION	Procurement Ongoing
UNIT, CONDENSATE DRAIN	Procurement Ongoing
WHEEL ASSEMBLY	Procurement Ongoing
VALVE, SUCTION LMF (DIA 85)	Procurement Ongoing
SWITCH, AIR PRESSURE (LF32-11)	Procurement Ongoing
VALVE, DISCHARGE LMF (DIA 48)	Procurement Ongoing
COIL, AUX RELAY 120VAC 2901912	Procurement Ongoing
VALVE, SUCTION LMF (DIA 48)	Procurement Ongoing
CARD, MODBUS COM. MODULE	Procurement Ongoing
CONTROLLER, UVMAXPRO10	Procurement Ongoing
VALVE, PROPORTIONAL-GV CONTROL	Procurement Ongoing
PLATE, SPRING-SUCTION VLV 98R1	Procurement Ongoing
TRANSMITTER, PRESSURE	Procurement Ongoing
PLATE, DAMPER - VALVES 98R1	Procurement Ongoing
FLOAT SWITCH,HEAD COVER SUMP	Procurement Ongoing
FLOAT SWITCH LFL2-BK-U-PVC10	Procurement Ongoing
GATEWAY, SUBSTATION	Procurement Ongoing
RELAY, EMERG STOP XPSAR311144	Procurement Ongoing
RELAY, AUX STRUTHERS-DUNN	Procurement Ongoing
RELAY, AUX STRUTHERS-DUNN	Procurement Ongoing
RELAY, AUX STRUTHERS-DUNN	Procurement Ongoing
RELAY,AUX EATON	Procurement Ongoing
RELAY,AUX EATON	Procurement Ongoing
RELAY,LATCHING EATON	Procurement Ongoing
RELAY,TIME DELAY AGASTAT	Procurement Ongoing
HMI, ADVANTECH TPC-1840WP	Procurement Ongoing
KIT, HARNESS	Procurement Ongoing
PLATE, VALVE - VALVES 98R1	Procurement Ongoing
HMI, MULTI TOUCH PANEL COMP.	Procurement Ongoing
NUT, MHT - LMF VLVS 60-07H410	Procurement Ongoing
PLATE, SPRING-SUCTION VLV 88R1	Procurement Ongoing
RTD, SRG BODY/BLOWER ASSEMBLY	Procurement Ongoing
TRANSMITTER, ROTARY / ENCODER	Procurement Ongoing
PLATE, DAMPER - VALVES 88R1	Procurement Ongoing
SENSOR,TEMP MAGNETIC MOUNT	Procurement Ongoing
PLATE, VALVE - VALVES 88R1	Procurement Ongoing
TRANSMITTER,LEVEL LGC	Procurement Ongoing
PLATE, SPRING-DISCHAR VLV 88R1	Procurement Ongoing



Critical Spares Stock Status¹
Muskrat Falls Generation
27-Nov-25

Critical Spare Component	Stock Status
TRANSMITTER, LEVEL	Procurement Ongoing
PLATE, SPRING - VALVES 52R2	Procurement Ongoing
SENSOR, ULTRASONICS FLOW RATE	Procurement Ongoing
FLOWMETER, 2"	Procurement Ongoing
FLOWMETER, 1 1/2"	Procurement Ongoing
RTD - DRYWELL DYNATHERM	Procurement Ongoing
METER, ELECTRONIC HOUR	Procurement Ongoing
LEVEL SWITCH MLS-4EX	Procurement Ongoing
PLATE, VALVE - VALVES 52R2	Procurement Ongoing
SENSOR, CURRENT (RANGE 0 -10A)	Procurement Ongoing
NUT, MHT - LMF VLVS 60-05H410	Procurement Ongoing
SWITCH, ULTRASONIC LEVEL	Procurement Ongoing
INDICATOR, DENSITY ABB	Procurement Ongoing
MONITOR, DENSITY ABB	Procurement Ongoing
DEVICE, SF6 FILLING ABB	Procurement Ongoing
DETECTOR, SF6 GAS LEAK ABB	Procurement Ongoing
NUT, MHT - LMF VLVS 60-06H410	Procurement Ongoing
MONITOR,TRIP COIL E-MAX	Procurement Ongoing
SERVO LVDT RP-S-650M-D60-1-A01	Procurement Ongoing
LVDT RP-S-250M-D60-1-A01	Procurement Ongoing
RECORDER DIGITAL FAULT	Procurement Ongoing
PLATE, VALVE - SUC VLV 41CD10	Procurement Ongoing
MOTOR, 7GPM REVERSE PUMP	Procurement Ongoing
MOTOR, 1HP TECO-WEST.	Procurement Ongoing
PLATE, SPRING - SUC VLV 41CD10	Procurement Ongoing
MOTOR,1.5HP,3465RPM,600V,60HZ	Procurement Ongoing
RING, VALVE - DIS VLV 48CDD	Procurement Ongoing
MOTOR, 20HP BROOK CROMPTON	Procurement Ongoing
SPRING, DAMPER - DIS VLV 48CDD	Procurement Ongoing
STARTER, MOTOR	Procurement Ongoing
O-RING, PRP 264-VITON	Procurement Ongoing
O-RING,PRP 345-VITON (DIA 185)	Procurement Ongoing
O-RING, PRP 264-VITON	Procurement Ongoing
BUSHING,NEUTRAL,ALAMO 25 KV	Procurement Ongoing
O-RING,PRP 345-VITON (DIA 150)	Procurement Ongoing
XFMR,NEUTRAL GND 110KV BIL	Procurement Ongoing
O-RING, PRP 254-VITON (DIA 85)	Procurement Ongoing
O-RING, PRP 228-VITON	Procurement Ongoing



Critical Spares Stock Status¹
Muskrat Falls Generation
27-Nov-25

Critical Spare Component	Stock Status
O-RING, PRP 254-VITON (DIA 48)	Procurement Ongoing
TRANSFORMER,CT SPLIT-PHASE	Procurement Ongoing
O-RING, PRP 238-VITON	Procurement Ongoing
RESISTOR,NEUTRAL GROUNDING	Procurement Ongoing
SEAL, OIL BA 52-80-10, VITON	Procurement Ongoing
MOTOR,OFF LOAD TAP CHANGER	Procurement Ongoing
XFMR, 600/120 200VA MCI	Procurement Ongoing
XFMR, 600/120 100VA HAMMOND	Procurement Ongoing
COIL SPRING, ST14100	Procurement Ongoing
WASHER, PLAIN SS M10	Procurement Ongoing
NUT, SS M6	Procurement Ongoing
TRANSMITTER, ISOLATED TEMP-T/C	Procurement Ongoing
BREAKER, CIRCUIT (MDS-616)	Procurement Ongoing
BUSHING, HV	Procurement Ongoing
XFMR, 600/120 150VA MCI	Procurement Ongoing
BREAKER, CIRCUIT (MDS-632)	Procurement Ongoing
ARRESTOR,SURGE, 025W0412BL I	Procurement Ongoing
BREAKER, CIRCUIT (MDS-612)	Procurement Ongoing
SCREW, LOCKING 145-400X30	Procurement Ongoing
PROFILE, EDGE PROTECTION	Procurement Ongoing
SEAL, OIL BASL 39-52-10	Procurement Ongoing
BEARING, BALL - LMF NR. 6205	Procurement Ongoing
BEARING, ROLLER - LMF NU 311B	Procurement Ongoing
BEARING, CON. ROD LMF	Procurement Ongoing
BEARING, ROLLER - LMF NR20 314	Procurement Ongoing
PUMP, 2GPM SUPPLY	Procurement Ongoing
GASKET, FLANGE 4" X 1/16"	Procurement Ongoing
GASKET, FLANGE 2 1/2" X 1/16"	Procurement Ongoing
CONTACT, MOVING MAIN	Procurement Ongoing
GATEWAY,SUBSTATION	Procurement Ongoing
SWITCH,1-POLE 15KV NEUTRAL GND	Procurement Ongoing
CLOCK,PTP CONVERTER	Procurement Ongoing
BREAKER, CIRCUIT (MDS-608)	Procurement Ongoing
BEARING,WHEEL, DWS 500 EA	Procurement Ongoing
BEARING,FLANGE,40MM,UCFC208	Procurement Ongoing
BUSHING,HV,GOE1425-1050 1	Procurement Ongoing
BUSHING,LV,ALAMO 25 KV	Procurement Ongoing
ASSEMBLY,MAN MOTOR START EATON	Procurement Ongoing



Critical Spares Stock Status¹
Muskrat Falls Generation
27-Nov-25

Critical Spare Component	Stock Status
ARC CHAMBER	Procurement Ongoing
CONTACTOR, REVERSING 24VDC	Procurement Ongoing
ASSEMBLY, REVERSE CONTACTOR	Procurement Ongoing
SWITCH,STATIC TRANSFER,INEX	Procurement Ongoing
SELECTOR, 3 POS 800T-J2KC1ANAX	Procurement Ongoing
SWITCH, 2 POSITION KEYED	Procurement Ongoing
SWITCH, 3 POS. 800HC-JR2KD7B	Procurement Ongoing
SWITCH, 3 POS. 800FP-KM34PX11	Procurement Ongoing
SWITCH, 2 POS. 800FP-KM22PX01	Procurement Ongoing
SELECTOR, 3 POS. 800H-JR2KC1B	Procurement Ongoing
SELECTOR, 3 POS 800T-J2KC1B	Procurement Ongoing
PUSH-BUTTON, RED 800TC-A6B	Procurement Ongoing
CONTACTOR, SCHNEIDER ELECTRIC	Procurement Ongoing
SWITCH, OVERTRAVEL LIMIT	Procurement Ongoing
RELAY,VOLTAGE MONITOR 3 PHASE	Procurement Ongoing
RELAY,OVERLOAD	Procurement Ongoing
RELAY, GAS, MODEL 12	Procurement Ongoing
MOTOR, STATIC START SWITCH ABB	Procurement Ongoing
RELAY, TIMING/POWER OFF DELAY	Procurement Ongoing
BASE, RELAY - 700-HN103	Procurement Ongoing
BUSHING, LV	Procurement Ongoing
RELAY, TIME DELAY ON 11 PIN	Procurement Ongoing
RELAY, TIME DELAY UNDERVOLTAGE	Procurement Ongoing
CONTACT, PIN	Procurement Ongoing
CONTACT, SOCKET	Procurement Ongoing
BUSHING, HV	Procurement Ongoing
RELAY.SYNCHROCHECK ABB	Procurement Ongoing
FUSE, TIME DELAY .5A LP-CC-1/2	Procurement Ongoing
BUSHING, LV	Procurement Ongoing
FUSE, 6A/600V ABB 652-336-04	Procurement Ongoing
REDUCER,RATIO: 312	Procurement Ongoing
ARRESTER, SURGE MWD	Procurement Ongoing
CAPACITOR,0.25 MICROFARAD-24KV	Procurement Ongoing
INSULATOR, PORCELAIN MR1	Procurement Ongoing
BUSHING, SILICONE RUBBER CX572	Procurement Ongoing
STRIP, STEEL NAX 30	Procurement Ongoing
STRIP, STEEL NAX 30	Procurement Ongoing
JOINT,FLEXIBLE - CX 541A	Procurement Ongoing



Critical Spares Stock Status¹
Muskrat Falls Generation
27-Nov-25

Critical Spare Component	Stock Status
BAND, IRON + CLIPS SS	Procurement Ongoing
TUBE, RED SILCONE - WURTH	Procurement Ongoing
PLAIT, FLEXIBLE COPPER	Procurement Ongoing
PLAIT, FLEXIBLE COPPER	Procurement Ongoing
SENSOR, RTD TIR 409	Procurement Ongoing
SHEET, ALUMINUM SP/THK=3MM	Procurement Ongoing
SHEET, ALUMINUM SP/THK=3MM	Procurement Ongoing
GASKET, ADHESIVE ATAG 50X5	Procurement Ongoing
GASKET,SILICONE RUBBER CX 423A	Procurement Ongoing
REDUCER,RATIO: 784.75	Procurement Ongoing
REDUCER,SHAFT POS: 123	Procurement Ongoing
NUT, SS M10	Procurement Ongoing
SCREW, TAPPING SS 4,2X16	Procurement Ongoing
PROTECTION, ALUM SP/THK=3MM	Procurement Ongoing
SEAL, BLACK SILICONE	Procurement Ongoing
MOTOR,DRE100L4 M1B-TBO-CEK	Procurement Ongoing
BEARING, OUTBOARD SHAFT	Procurement Ongoing
WASHER, PLAIN SS M6	Procurement Ongoing
PANEL, CLASS REI60	Procurement Ongoing
PUTTY, ANTIFIRE SEALING	Procurement Ongoing
SHEET, ALUMINUM SP/THK=3MM	Procurement Ongoing
SHEET, ALUMINUM SP/THK=3MM	Procurement Ongoing
SPRING, STEEL	Procurement Ongoing
GASKET, NEOPRENE SPONGE 30X5	Procurement Ongoing
GASKET, NEOPRENE SPONGE 50X5	Procurement Ongoing
GASKET, SILICONE RUBBER 10X12	Procurement Ongoing
GASKET, SILICONE RUBBER CX423	Procurement Ongoing
GASKET, SILICONE RUBBER 1100X6	Procurement Ongoing
GASKET, SILICONE RUBBER CX540	Procurement Ongoing
GASKET, SILICONE RUBBER CX539	Procurement Ongoing
ADAPTER SLEEVE 401603	Procurement Ongoing
DETECTOR, GROUND FAULT	Procurement Ongoing
SOCKET, TERMINAL	Procurement Ongoing
XFMR, 600/120 100VA MCI	Procurement Ongoing
SWITCH,PB ILLUMINATED RED	Procurement Ongoing
GASKET	Procurement Ongoing
PANEL, TOUCH-SCREEN HMISTO501	Procurement Ongoing
MODULE, ANALOG INPUT 4 POINT	Procurement Ongoing



Critical Spares Stock Status¹
Muskrat Falls Generation
27-Nov-25

Critical Spare Component	Stock Status
CONTACT, STATIONARY MAIN	Procurement Ongoing
CONTROLLER, MICRO 850	Procurement Ongoing
VALVE,SFTY RLF F85-F 1.5X2	Procurement Ongoing
SWITCH, ETHERNET	Procurement Ongoing
SNUBBER	Procurement Ongoing
SENSOR,PROX AIR GAP	Procurement Ongoing
SWITCH,ETHERNET HIRSCHMANN	Procurement Ongoing
MOTOR, AXIAL PISTON	Procurement Ongoing
MOTOR, AXIAL PISTON	Procurement Ongoing
MOTOR, AXIAL PISTON	Procurement Ongoing
SWITCH,ETHERNET ALSTOM	Procurement Ongoing
CLOCK,PTP CONVERTER	Procurement Ongoing
HORN STROBE, WEATHER PROOF	Procurement Ongoing
STROBE	Procurement Ongoing
CYLINDER, HYDRAULIC	Procurement Ongoing
DETECTOR, HEAT 135F	Procurement Ongoing
TRANSFORMER,CT NEUTRAL TC-1093	Procurement Ongoing
DETECTOR, REFLECTIVE BEAM	Procurement Ongoing
TRANSFORMER,CT NEUTRAL TC-1094	Procurement Ongoing
CONTROLLER, 4100 MASTER	Procurement Ongoing
ANNUNCIATOR, 4100 REMOTE	Procurement Ongoing
COUPLING,MAIN HOIST DRUM	Procurement Ongoing
BOLT,COUNTERSINK,M16X70	Procurement Ongoing
COUPLING,AUXILIARY HOIST DRUM	Procurement Ongoing
BEARING, BALL,SINGLE 6005 2RSR	Procurement Ongoing
MOTOR, 3-PHASE INDUCTION	Procurement Ongoing
BEARING,ROTATING UNIT	Procurement Ongoing
ASSY,SHEAR PIN MFAGS TURBINE	Procurement Ongoing
TRANSMITTER, ISOLATED TEMP-RTD	Procurement Ongoing
MONITOR, THREE PHASE ABB	Procurement Ongoing
BEARING,SINGLE 6308 2RSR	Procurement Ongoing
PISTON RING	Procurement Ongoing
CONTACT, AUX DPDT 500LG-142C	Procurement Ongoing
MOTOR,ELECTRIC TEF 3PH 60HP	Procurement Ongoing
REDUCER,SHAFT POS: 124	Procurement Ongoing
MOTOR,100HP F1 JUNCTION BOX	Procurement Ongoing
HEATER, COMPART. MAGNUM DS	Procurement Ongoing
REDUCER,KH167 RATIO 109.83	Procurement Ongoing



Critical Spares Stock Status¹
Muskrat Falls Generation
27-Nov-25

Critical Spare Component	Stock Status
MOTOR, ASYNCHRON 3 PHASE	Procurement Ongoing
BAR, THREADED SS M10X200	Procurement Ongoing
SEAL, SHAFT WATER	Procurement Ongoing
XFMR, 600/120 300VA MCI	Procurement Ongoing
VALVE, PRESSURE RELIEF, 2800PSI	Procurement Ongoing
MOTOR, 100HP F2 JUNCTION BOX	Procurement Ongoing

¹ A detailed listing of all critical spares for Muskrat Falls Generation is available within Appendix H of "Reliability and Resource Adequacy Study Review - 2025–2026 Winter Readiness Planning Report," Newfoundland and Labrador Hydro, October 14, 2025. ("October WR Report").

Appendix G

Status of Winter Readiness Testing of Plant and Equipment for Muskrat Falls Generation





Muskrat Falls Hydroelectric Generating Station
9-Dec-25

	Status of Test				
	Unit 1	Unit 2	Unit 3	Unit 4	Balance of Plant System
Following Annual Outages, Unit is Run Up, Synchronized and all Systems Verified Before Operating Status Determined, as per Energy Control Centre, Prior to Coming Winter Operating Season to Ensure Preparedness. A Unit Load Test is Performed at this Time.	✓	✓	✓	✓	N/A
All Alternate Sources of Station Service Tested and Available	✓	✓	✓	✓	✓
Service Air and Instrument Air Systems Compressors					
All Stationary Air Compressors Available	N/A	N/A	N/A	N/A	✓
Air Compressor Operational Checks Performed (e.g., Oil Levels, etc.)	N/A	N/A	N/A	N/A	✓
Air Compressor Sequencing Capability Available	N/A	N/A	N/A	N/A	✓
High Pressure Compressors Available	N/A	N/A	N/A	N/A	✓
Low Pressure Compressor Available	N/A	N/A	N/A	N/A	✓
Brake air pressure system & Alternate source's functional	✓	✓	✓	✓	✓
Instrumentation Control's functional and Alarms Operational	✓	✓	✓	✓	✓
Turbine/Generator ("TG") Cooling Water Systems					
Service Water Pumps Available	N/A	N/A	N/A	N/A	✓
Shaft seal sand filter skids functional	N/A	N/A	N/A	N/A	✓
Shaft Seal System Available	✓	✓	✓	✓	✓
Cooling Water System Available	✓	✓	✓	✓	✓
Cooling Water Strainers Inspected and Available	✓	✓	✓	✓	✓
Raw water Bypass strainer function tested	✓	✓	✓	✓	N/A
TG Governor System					
Unit HMI's functional & alarms cleared	✓	✓	✓	✓	N/A
Hydraulic System Accumulators Operational	✓	✓	✓	✓	N/A
Governor System Annual PM Complete	✓	✓	✓	✓	N/A
Governor System Available	✓	✓	✓	✓	N/A
Hydraulic Pump(s) Available	✓	✓	✓	✓	N/A
Generator					
Generator Exciter Operation Checked Offline and Online	✓	✓	✓	✓	N/A
Generator Exciter Available	✓	✓	✓	✓	N/A
Brush Condition Verified	✓	✓	✓	✓	N/A
Excitation ground fault monitor operational & clear	✓	✓	✓	✓	N/A

S/U - Final confirmation completed during Start-Up. When possible, test also completed during annual outage.
✓ - Test completed
N/A - Not Applicable



Muskrat Falls Hydroelectric Generating Station
9-Dec-25

Status of Test					
Unit 1	Unit 2	Unit 3	Unit 4	Balance of Plant System	Spillway
Lubricating System					
Portable Oil Pump (Jacking)	✓	✓	✓	N/A	N/A
Generator Oil Level System Metering Available	✓	✓	✓	N/A	N/A
Turbine Oil Level System Metering Available	✓	✓	✓	N/A	N/A
Alternating Current High Pressure Jacking Oil Pump Available Automatic	✓	✓	✓	N/A	N/A
Switchyard/Terminal Station					
Unit Breakers and Disconnects Operational	✓	✓	✓	N/A	N/A
Unit Breaker PM Complete	✓	✓	✓	N/A	N/A
Intake					
Water elevation monitoring functional	✓	✓	✓	N/A	N/A
Trashrack System	✓	✓	✓	N/A	N/A
Gate Operation	✓	✓	✓	N/A	N/A
Gate Heating System	✓	✓	✓	N/A	N/A
Alarm Systems	✓	✓	✓	N/A	N/A
Upstream Ice boom removed	N/A	N/A	N/A	N/A	✓
Spillway					
Water Elevation	N/A	N/A	N/A	N/A	✓
Gate Heating	N/A	N/A	N/A	N/A	✓
Gate Operation	N/A	N/A	N/A	N/A	✓
Emergency (Backup) Diesel Generator	N/A	N/A	N/A	N/A	✓
Emergency Lift Operation and Tested	N/A	N/A	N/A	N/A	✓
Battery Banks Chargers					
Plant 48V System					
48 V Battery Banks Checked	✓	✓	✓	✓	✓
48 V Battery Chargers functional	✓	✓	✓	✓	✓
48 V Battery Charger alternate sources available	✓	✓	✓	✓	✓
Plant 125 V System					
125 V Battery Banks Checked	✓	✓	✓	✓	✓
125 V Battery Chargers functional	✓	✓	✓	✓	✓
125 V Battery Charger alternate sources available	✓	✓	✓	✓	✓
Plant Uninterrupted Power Supplies ("UPS")					
Emergency Light UPS	N/A	N/A	N/A	✓	✓
UPS Power Supplies (Inverter #1)	N/A	N/A	N/A	✓	✓
UPS Power Supplies (Inverter #2)	N/A	N/A	N/A	✓	✓

S/U - Final confirmation completed during Start-Up. When possible, test also completed during annual outage.

✓ - Test completed

N/A - Not Applicable



Muskrat Falls Hydroelectric Generating Station
9-Dec-25

Status of Test					
Unit 1	Unit 2	Unit 3	Unit 4	Balance of Plant System	Spillway
Emergency Diesel Generators					
Emergency Diesel Generators Tested for Emergency Stop	N/A	N/A	N/A	✓	✓
Emergency Diesel Generators Tested for Manual and Auto-Start Operation along with Auto Breaker Closure as well as Emergency Manual Closing of Breakers	N/A	N/A	N/A	✓	✓
Alternate Alternating Current Sources Available	✓	✓	✓	✓	✓
Station Services Available	✓	✓	✓	✓	✓
Transfer Alternate Source	✓	✓	✓	✓	✓
Plant Air Conditioning/Cooling System					
Mezzanine 2	N/A	N/A	N/A	✓	N/A
Mezzanine 1	N/A	N/A	N/A	✓	N/A
Control room	N/A	N/A	N/A	✓	N/A
Generation floor/ Mimic panel functional	N/A	N/A	N/A	✓	N/A
Turbine floor	N/A	N/A	N/A	✓	N/A
Dewatering gallery	N/A	N/A	N/A	✓	N/A
Plant Heating Steam					
All Systems Operational for when Required	✓	✓	✓	✓	✓
Heat recovery units operational	✓	✓	✓	N/A	N/A
Stairwell heaters operational	✓	✓	✓	✓	✓
Trench heat trace operational	N/A	N/A	N/A	N/A	✓
Gear box heaters operational	N/A	N/A	N/A	✓	✓

S/U - Final confirmation completed during Start-Up. When possible, test also completed during annual outage.
✓ - Test completed
N/A - Not Applicable