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

July 31, 2026

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

Attention: Mike McNiven
Senior Regulatory Advisor & Board Secretary

**Re: Quarterly Report on Asset Performance in Support of Resource Adequacy for the Twelve Months Ended June 30, 2026**

Please find enclosed Newfoundland and Labrador Hydro's Quarterly Report on Asset Performance in Support of Resource Adequacy for the Twelve Months Ended June 30, 2026.[1]

Appendix B to this report contains the updates specific to the Muskrat Falls Assets to provide the Board of Commissioners of Public Utilities with fulsome information as previously requested.

Should you have any questions, please contact the undersigned.

Yours truly,

**NEWFOUNDLAND AND LABRADOR HYDRO**

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

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**
Adrienne Ding, O'Dea Earle
Justin King, O'Dea Earle
Consumer Advocate General

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

[1] Formerly titled "Quarterly Report of Generating Units for the Twelve Months Ended []."

# Quarterly Report on Asset Performance in Support of Resource Adequacy

## For the Twelve Months Ended June 30, 2026

July 31, 2026

A report to the Board of Commissioners of Public Utilities

newfoundland labrador hydro

# Contents



# List of Appendices

# 1.0 Introduction

In this report, Newfoundland and Labrador Hydro ("Hydro") provides data on forced outage rates of its generating facilities and the Labrador-Island Link ("LIL"). The data provided pertains to historical forced outage rates and assumptions Hydro uses in its assessments of resource adequacy. This report covers the performance for the current 12-month reporting period of July 1, 2025 to June 30, 2026 ("current period").

This report contains forced outage rates for the current period for individual generating units at regulated hydraulic facilities,[1] the Holyrood Thermal Generating Station ("Holyrood TGS"), Hydro's combustion turbines ("CT"), and the non-regulated Muskrat Falls Hydroelectric Generating Facility ("Muskrat Falls Facility"). In addition, equivalent forced outage rates are provided for the 900 MW LIL. This report also provides, for comparison purposes, the individual asset forced outage rates for the 12-month reporting period of July 1, 2024 to June 30, 2025 ("previous period"). Further, total asset class data is presented based on the calendar year for the remainder of the ten most recent years, 2016 to 2025, with the exception of the Muskrat Falls Facility[2] and the LIL.[3]

The forced outage rates of Hydro's generating units are calculated using two measures:

**1)** Derated adjusted forced outage rate ("DAFOR") for the continuous (base-loaded) units; and

**2)** Derated adjusted utilization forced outage probability ("DAUFOP") for the standby units.

DAFOR is a metric that measures the percentage of time that a unit or group of units is unable to generate at its maximum continuous rating due to forced outages or unit deratings. The DAFOR for each unit is weighted to reflect differences in generating unit sizes to provide a combined total and reflect the relative impact a unit's performance has on overall generating performance. This measure is applied to

[1] Regulated hydraulic facilities include the Bay d'Espoir Hydroelectric Generating Facility ("Bay d'Espoir Facility" or "BDE"), the Cat Arm Hydroelectric Generating Station ("Cat Arm Station" or "CAT"), the Hinds Lake Hydroelectric Generating Station ("Hinds Lake Station" or "HLK"), the Upper Salmon Hydroelectric Generating Station ("Upper Salmon Station" or "USL"), the Granite Canal Hydroelectric Generating Station ("Granite Canal Station" or "GCL"), and the Paradise River Hydroelectric Generating Station ("Paradise River Station" or "PRV").
[2] The final generating unit at the Muskrat Falls Facility was released for commercial operation on November 25, 2021. Annual DAFOR performance data is available beginning in 2022.
[3] The LIL was officially commissioned on April 13, 2023. Annual equivalent forced outage rate ("EqFOR") data is available beginning in 2024.

hydraulic units and, historically, was used for the thermal units; however, it does not apply to CTs because of their operation as standby units and their relatively low operating hours.

DAUFOP is a metric that measures the percentage of time that a unit or group of units will encounter a forced outage and not be available when required. DAUFOP is a measure primarily used for CTs; however, this measure may be applicable to thermal units, should their operation move towards standby operation in the future. This metric includes the impact of unit deratings.

The forced outage rates include outages that remove a unit from service completely as well as instances when units are derated. If a unit's output is reduced by more than 2%, the unit is considered derated under Electricity Canada guidelines. These guidelines require that the derated levels of a generating unit be calculated by converting the operating time at the derated level into an equivalent outage time.

As the LIL is not a generating unit, the above-noted forced outage rate measures do not apply to this asset. Instead, Hydro has determined an appropriate metric to be an EqFOR to measure the performance of this asset as it relates to the supply of electricity to the Island. This EqFOR measures the percentage of time that the LIL bipole is unable to deliver its maximum continuous rating[4] to the Island due to forced outages, derates, or unplanned monopole outages. The effect of deratings and unplanned monopole outages is converted to equivalent bipole outage time using the same methodology as outlined above for generating units.

In addition to forced outage rates, this report provides details for those outages which occurred in the current period that contributed materially to forced outage rates exceeding those used in Hydro's resource adequacy planning analysis for both the near and long-term.

[4] The LIL maximum continuous rating is now 900 MW, following the successful completion of high-power testing on March 26, 2026.

# 2.0 Assumptions Used in Hydro's Assessment of System Reliability and Resource Adequacy

Hydro continually assesses the reliability of its system and its ability to meet customer requirements, filing both near- and long-term assessments with the Board of Commissioners of Public Utilities ("Board").[5]

As part of the ongoing *Reliability and Resource Adequacy Study Review* proceeding, Hydro detailed the process undertaken for determining the forced outage rates most appropriate for use in its near-term reliability assessments and long-term resource adequacy analysis. Table 1 and Table 2 summarize the most recent forced outage rate assumptions, as determined using the forced outage rate methodology.[6] Forced outage rate assumptions will be re-evaluated on an annual basis to incorporate the most recent data available.

**Table 1: Hydro's Reliability and Resource Adequacy Study Analysis Values – Generating Units (%)**

| Asset Type | Measure | Near-Term Analysis Value | Resource Planning Analysis Value |
|---|---|---|---|
| Hydraulic: Regulated | DAFOR | 2.50 | 3.03 |
| Hydraulic: Muskrat Falls | DAFOR | 2.30 | 3.03 |
| Thermal | DAUFOP | 20.00[7] | 20.00 |
| CTs | | | |
| Happy Valley | DAUFOP | 4.65 | 4.65 |
| Hardwoods and Stephenville | DAUFOP | 30.00 | 30.00 |
| Holyrood | DAUFOP | 4.90 | 4.90 |

A three-year, capacity-weighted average was applied to the regulated hydraulic units (Bay d'Espoir Facility, Cat Arm Station, Hinds Lake Station, Granite Canal Station, Upper Salmon Station, and Paradise River Station) for a near-term analysis, resulting in a DAFOR of 2.50%, while a ten-year, capacity-weighted average was applied for use in the long-term resource planning model, resulting in a DAFOR of

[5] Hydro currently files an assessment of near-term system reliability and resource adequacy annually in November, the Near-Term Reliability Report. Hydro also files an assessment of longer-term system reliability and resource adequacy. The most recent filing was the "2024 Resource Adequacy Plan – An Update to the Reliability and Resource Adequacy Study," Newfoundland and Labrador Hydro, rev. August 26, 2024 (originally filed July 9, 2024), ("2024 Resource Adequacy Plan").
[6] Values indicated for Hydro's near-term analysis reflect those used in the 2024 Resource Adequacy Plan and the "Reliability and Resource Adequacy Study Review – 2025 Near-Term Reliability Report – November Report," Newfoundland and Labrador Hydro, November 20, 2025 ("November 2025 Near-Term Report").
[7] The Holyrood TGS base assumption is 20.00%. The sensitivity assumption is 34.00%. A sensitivity value of 34.00% was chosen to reflect actual performance at the Holyrood TGS for the 2021–2022 winter operating period.

3.03%. The DAFOR value was based on historical data reflective of Hydro's maintenance program over the long term.

For the Muskrat Falls Facility, the near-term forced outage rate was based on the forced outage rates of the units to date, to reflect the possibility of outages early in the lifetime of the Muskrat Falls Facility. In the long-term resource planning model, the regulated hydroelectric forced outage rate was used, as it is assumed that these assets will be maintained to the same standards as the remainder of the hydraulic fleet.

Historically, forced outage rates for the three units at the Holyrood TGS have been reported using the DAFOR metric, which is predominantly used for units that operate in a continuous (base-loaded) capacity. As presented in Hydro's Reliability and Resource Adequacy Study 2022 Update,[8] there are reliability concerns associated with the operation of the units at the Holyrood TGS in an emergency standby capacity. When considering standby or peaking operations of units at the Holyrood TGS, DAFOR is no longer the most appropriate measure of forced outage rates; instead, UFOP[9] and DAUFOP should be considered. Given the frequency of deratings historically experienced by these units, DAUFOP is a more appropriate measure.

Analyses performed for a range of Holyrood TGS DAUFOP assumptions indicate the sensitivity of supply adequacy to changes in the availability of the Holyrood TGS. From this analysis, a forced outage rate of 20.00% was recommended in the near-term, with a sensitivity value of 34.00%. Hydro will continue to analyze the operational data to ensure that forced outage rate assumptions for the Holyrood TGS are appropriate.

The operation of the units at the Holyrood TGS remains base-loaded to ensure the availability of capacity for the power system. To ensure alignment with the assumptions used in the resource planning model (PLEXOS)[10] while appropriately reporting on current period versus historical performance, Hydro will continue to use the DAFOR performance measure and the 20.00% forced outage rate for the units at the Holyrood TGS.

[8] "Reliability and Resource Adequacy Study – 2022 Update," Newfoundland and Labrador Hydro, October 3, 2022.
[9] Utilization forced outage probability ("UFOP").
[10] The resource planning model does not differentiate between DAFOR and DAUFOP metrics; rather, it applies a forced outage rate only.

As the CTs in the existing fleet vary in age and condition, each was considered on an individual basis. For the Happy Valley Gas Turbine ("GT"),[11] a three-year, capacity-weighted average was applied to the unit for the near-term analysis, while a ten-year capacity-weighted average was applied for use in the resource planning model. The DAUFOP values were based on historical data to reflect the unit's past performance. For the Holyrood CT, the DAUFOP was calculated based on a scenario-based approach rather than historical data, due to the unit's minimal operating time and resultant small data set. For the Hardwoods and Stephenville GTs, a fixed DAUFOP consistent with values considered in Hydro's previous near-term reliability reports was used for the near-term and long-term analyses.[12] As presented in Hydro's 2024 Resource Adequacy Plan, the Hardwoods and Stephenville GTs are proposed for retirement in 2030; however, life extension analysis is ongoing.[13]

Now that the LIL is commissioned, multiple years of operational experience are required to better inform the long-term selection of a bipole forced outage rate. In the interim, the bipole forced outage rate will be addressed with a range of upper and lower limits as additional scenarios in the analysis—currently 10% and 1%, respectively. As LIL performance statistics become available in the coming years, the forced outage rate range may be narrowed. However, the current base-case assumption is a 5% LIL forced outage rate.

**Table 2: Hydro's Reliability and Resource Adequacy Study Analysis Values – LIL (%)**

| Asset Type | Measure | Base Planning Analysis Value | Range of Planning Analysis Values |
|---|---|---|---|
| LIL | EqFOR | 5 | 1–10 |

[11] The Happy Valley GT, located in Labrador East, supports regional reliability, providing back-up generation for the area.
[12] "Reliability and Resource Adequacy Study Review – 2024 Near-Term Reliability Report – November Report," Newfoundland and Labrador Hydro, November 20, 2024.
[13] Hydro has received and filed the life extension condition assessment for the Hardwoods and Stephenville GTs. This information will inform Hydro's next reliability and resource adequacy update.

# 3.0 Current Period Overview

Table 3 presents an overview of the current period performance, compared to previous period performance and most recent Planning Analysis values.

**Table 3: DAFOR and DAUFOP Overview (%)**

| Asset Type | Measure | 12 Months Ended Jun 2026 | 12 Months Ended Jun 2025 | Near-Term Planning Analysis Value | Resource Planning Analysis Value |
|---|---|---|---|---|---|
| Hydraulic: Regulated | DAFOR | 2.36 | 1.28 | 2.50 | 3.03 |
| Hydraulic: Muskrat Falls Facility | DAFOR | 1.14 | 2.32 | 2.30 | 3.03 |
| Thermal | DAFOR/DAUFOP[14] | 26.44 | 28.69 | 20.00 | 20.00 |
| Combustion Turbines | | | | | |
| Happy Valley | DAUFOP | 11.24 | 0.00 | 4.65 | 4.65 |
| Hardwoods/Stephenville | DAUFOP | 8.98 | 17.53 | 30.00 | 30.00 |
| Holyrood | DAUFOP | 27.62 | 8.16 | 4.90 | 4.90 |

As shown in Table 3, Muskrat Falls Facility DAFOR and thermal DAFOR performance improved for the current period, whereas regulated hydraulic DAFOR performance declined when compared to the previous period.

The DAUFOP performance for the Hardwoods and Stephenville GTs has improved for the current period, while the Happy Valley GT and the Holyrood CT have declined in the current period, compared to the previous period.

Table 4 presents LIL data for the current and the previous period, calculated on a base capacity of 900 MW. Since the previous period, the performance of the LIL has remained consistent, with no significant impacts to the EqFOR because of any operational events that have occurred.

[14] The resource planning model does not differentiate between DAFOR and DAUFOP; rather, it requires the selection of a forced outage rate percentage.

**Table 4: EqFOR Overview (%)[15]**

| Asset Type | Measure | 12 Months Ended Jun 2026 | 12 Months Ended Jun 2025 | Base Planning Analysis Value | Range of Planning Analysis Values |
|---|---|---|---|---|---|
| LIL | EqFOR | 1.25 | 1.16 | 5 | 1–10 |

# 4.0 Hydraulic Unit DAFOR Performance – Regulated Hydro

Detailed results for the current period and the previous period are presented in Table 5 and Chart 1. These results are compared to Hydro's near-term and resource planning analysis values for forced outage rates, as used in the 2024 Resource Adequacy Plan and the November 2025 Near-Term Report. Any individual unit with forced outage rates which exceed the established near-term and/or resource planning analysis values is discussed herein.

**Table 5: Hydraulic Weighted DAFOR – Regulated Hydro**

| Generating Unit | Maximum Continuous Unit Rating (MW) | 12 Months Ended Jun 2026 (%) | 12 Months Ended Jun 2025 (%) | Near-Term Analysis Value (%) | Resource Planning Analysis Value (%) |
|---|---|---|---|---|---|
| **All Hydraulic Units – Weighted** | **954.4** | **2.36** | **1.28** | **2.50** | **3.03** |
| **Hydraulic Units** | | | | | |
| BDE Unit 1 | 76.5 | 5.63 | 0.00 | 2.50 | 3.03 |
| BDE Unit 2 | 76.5 | 11.65 | 0.00 | 2.50 | 3.03 |
| BDE Unit 3 | 76.5 | 1.49 | 0.00 | 2.50 | 3.03 |
| BDE Unit 4 | 76.5 | 1.27 | 0.53 | 2.50 | 3.03 |
| BDE Unit 5 | 76.5 | 1.35 | 0.00 | 2.50 | 3.03 |
| BDE Unit 6 | 76.5 | 1.27 | 0.00 | 2.50 | 3.03 |
| BDE Unit 7 | 154.4 | 2.32 | 3.88 | 2.50 | 3.03 |
| CAT Unit 1 | 67.0 | 0.14 | 0.06 | 2.50 | 3.03 |
| CAT Unit 2 | 67.0 | 5.31 | 0.07 | 2.50 | 3.03 |
| HLK Unit | 75.0 | 0.00 | 1.50 | 2.50 | 3.03 |
| USL Unit | 84.0 | 3.43 | 0.37 | 2.50 | 3.03 |
| GCL Unit | 40.0 | 1.23 | 4.94 | 2.50 | 3.03 |
| PRV Unit | 8.0 | 2.11 | 9.24 | 2.50 | 3.03 |

[15] This EqFOR is calculated on a base LIL capacity of 900 MW. The Quarterly Report on Asset Performance in Support of Resource Adequacy for the Twelve Months Ended June 30, 2025, filed July 31, 2025, reported LIL EqFOR of 0.65% on a base LIL capacity of 700 MW. However, following the successful completion of the 900 MW test on March 26, 2026, all calculations have been adjusted to reflect the change in capacity.

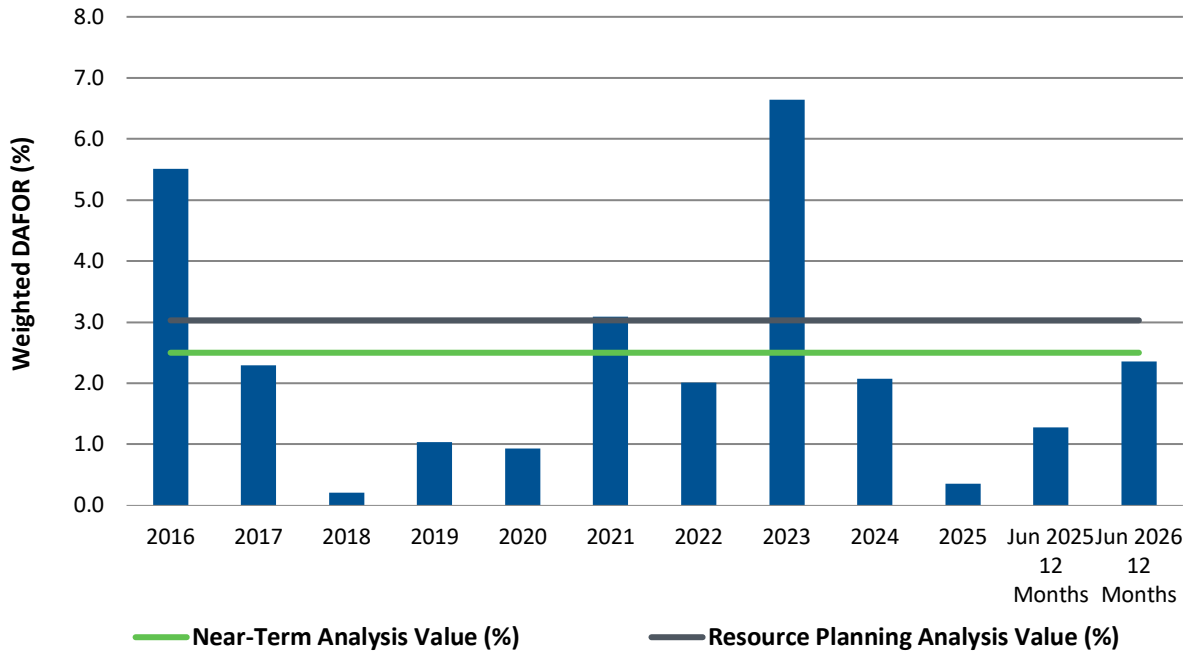


**Chart 1: Hydraulic Weighted DAFOR – Regulated Hydro**

## 4.1 Bay d'Espoir Facility

### 4.1.1 Bay d'Espoir Unit 1 and Unit 2

The BDE Unit 1 DAFOR of 5.63% and Unit 2 DAFOR of 11.65% for the current period are above the resource planning analysis value of 3.03% and the near-term planning analysis value of 2.50% for individual hydraulic units. As previously reported, this increase in DAFOR is the result of outages related to frazil ice accumulation, which caused the shutdown of all seven generating units at the Bay d'Espoir Facility on January 21, 2026.[16] While all units were impacted for approximately the same duration, with Units 1–6 returned to service on January 25, 2026,[17] Units 1 and 2 have a significantly higher DAFOR impact because of the reduced operation of both units in the current period. Both units were removed from service on March 31, 2025, to facilitate the approved Penstock 1 Life Extension Project.[18] Units 2 and 1 were returned to service and released for normal operation on December 19, 2025, and January 8, 2026, respectively.

[16] "Frazil Ice at Bay d'Espoir Hydroelectric Generating Station," Newfoundland and Labrador Hydro, April 30, 2026.
[17] BDE Unit 7 was returned to service on January 31, 2026.
[18] In Board Order No. P.U. 6(2023), Hydro received approval for the refurbishment of Penstock 1 at Bay d'Espoir.

Since the previous filing, Unit 1 experienced two forced outages on June 13, 2026 and June 18, 2026, resulting from shear pin failure alarms. The total duration of the two outages was approximately 38 hours. The unit was inspected and has since operated without issue.

Additionally, Unit 2 was removed from service on May 6, 2026 to complete the planned PM9 overhaul, and was originally scheduled to return to service on June 12, 2026. However, due to deficiencies observed with the thrust bearing and associated equipment during the outage, the unit experienced a forced extension to the planned outage until its return to service on June 20, 2026.

## 4.2 Cat Arm Facility

The Cat Arm Unit 2 DAFOR of 5.31% for the current period is above the near-term planning analysis value of 2.50% and the resource planning analysis value of 3.03% for an individual hydraulic unit. This elevated DAFOR is the result of a forced derating from 67 MW to 57 MW that has been in place on the unit since January 26, 2026. This derating is required due to an ongoing issue with one of the turbine needles. The unit is scheduled to undergo its planned annual outage during the third quarter of 2026, during which time this issue will be investigated and corrective actions implemented.

## 4.3 Upper Salmon Facility

The Upper Salmon unit DAFOR of 3.43% for the current period is above both the near-term planning analysis value of 2.50% and the resource planning analysis value of 3.03% for an individual hydraulic unit. The DAFOR performance was primarily impacted due to a forced outage that occurred from May 9, 2026 to May 18, 2026. This outage occurred when a flexible lead located on phase A of the isolated phase bus failed. The lead was replaced, and the unit returned to service on May 18, 2026.

# 5.0 Hydraulic Unit DAFOR Performance – Muskrat Falls

Detailed results for the current period and the previous period are presented in Table 6 and Chart 2. These results are compared to Hydro's near-term and resource planning analysis values for forced outage rates, as used in the 2024 Resource Adequacy Plan and the November 2025 Near-Term Report. Overall, the plant performance for the Muskrat Falls Facility shows improvement over the previous period. Any individual unit with performance not meeting the established near-term and resource planning analysis values is discussed below.

**Table 6: Hydraulic Weighted DAFOR – Muskrat Falls**

| Generating Unit | Maximum Continuous Unit Rating (MW) | 12 Months Ended Jun 2026 (%) | 12 Months Ended Jun 2025 (%) | Near-Term Analysis Value (%) | Resource Planning Analysis Value (%) |
|---|---|---|---|---|---|
| ***Muskrat Falls Units – Weighted*** | **824** | **1.14** | **2.32** | **2.30** | **3.03** |
| **Muskrat Falls Units** | | | | | |
| Muskrat Falls 1 | 206 | 0.00 | 0.37 | 2.30 | 3.03 |
| Muskrat Falls 2 | 206 | 1.86 | 1.21 | 2.30 | 3.03 |
| Muskrat Falls 3 | 206 | 2.74 | 0.11 | 2.30 | 3.03 |
| Muskrat Falls 4 | 206 | 0.03 | 0.01 | 2.30 | 3.03 |

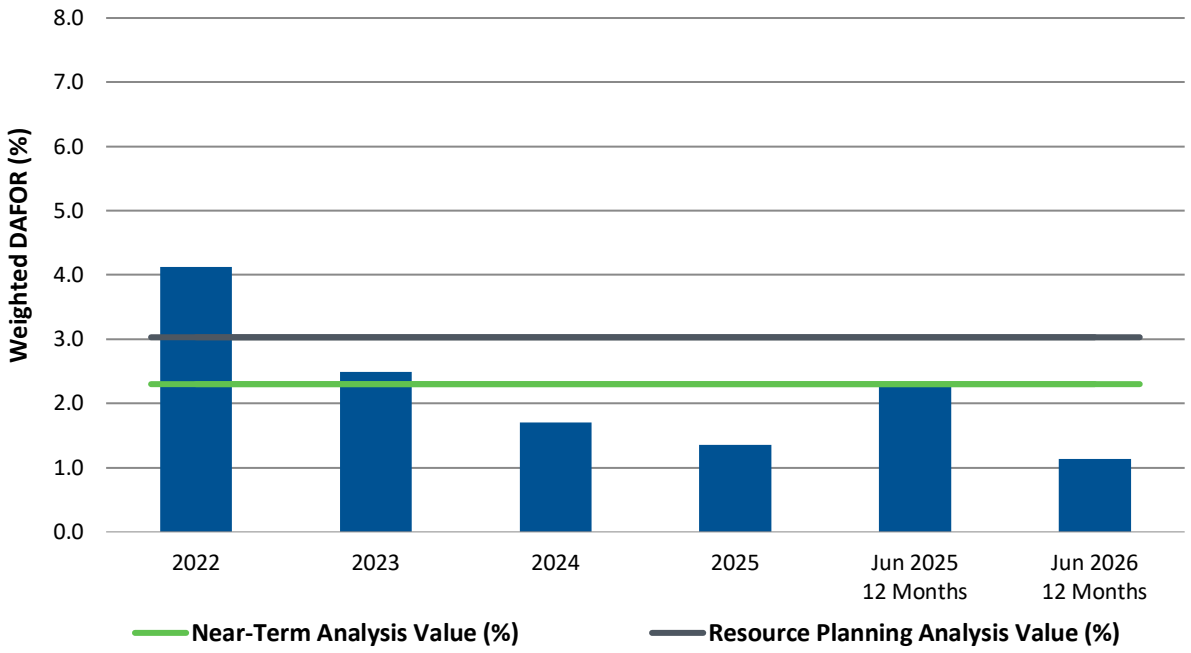


**Chart 2: Hydraulic Weighted DAFOR – Muskrat Falls**

## 5.1 Muskrat Falls Unit 3

The Muskrat Falls Unit 3 DAFOR of 2.74% is below the resource planning analysis value of 3.03% but is above the near-term planning analysis value of 2.30% for an individual Muskrat Falls unit. This elevated DAFOR is the result of two forced outages in the current period, as previously reported. No new outages have occurred since the previous filing.

# 6.0 Thermal Unit DAFOR Performance

Detailed results for the current period and previous period are presented in Table 7 and Chart 3. These results are compared to Hydro's near-term and resource planning analysis values for forced outage rates, as used in the 2024 Resource Adequacy Plan and the November 2025 Near-Term Report. Any individual unit with forced outage rates which exceed the established near-term and/or resource planning analysis values is discussed herein.

**Table 7: Thermal Weighted DAFOR**

| Generating Unit | Maximum Continuous Unit Rating (MW) | 12 months Ended Jun 2026 (%) | 12 months Ended Jun 2025 (%) | Near-Term Planning and Resource Planning Analysis Value (%) |
|---|---|---|---|---|
| **All Thermal Units – Weighted** | **490** | **26.44** | **28.69** | **20.00** |
| **Thermal Units** | | | | |
| Holyrood TGS Unit 1 | 170 | 18.85 | 70.95 | 20.00 |
| Holyrood TGS Unit 2 | 170 | 10.79 | 9.84 | 20.00 |
| Holyrood TGS Unit 3 | 150 | 72.84 | 3.61 | 20.00 |

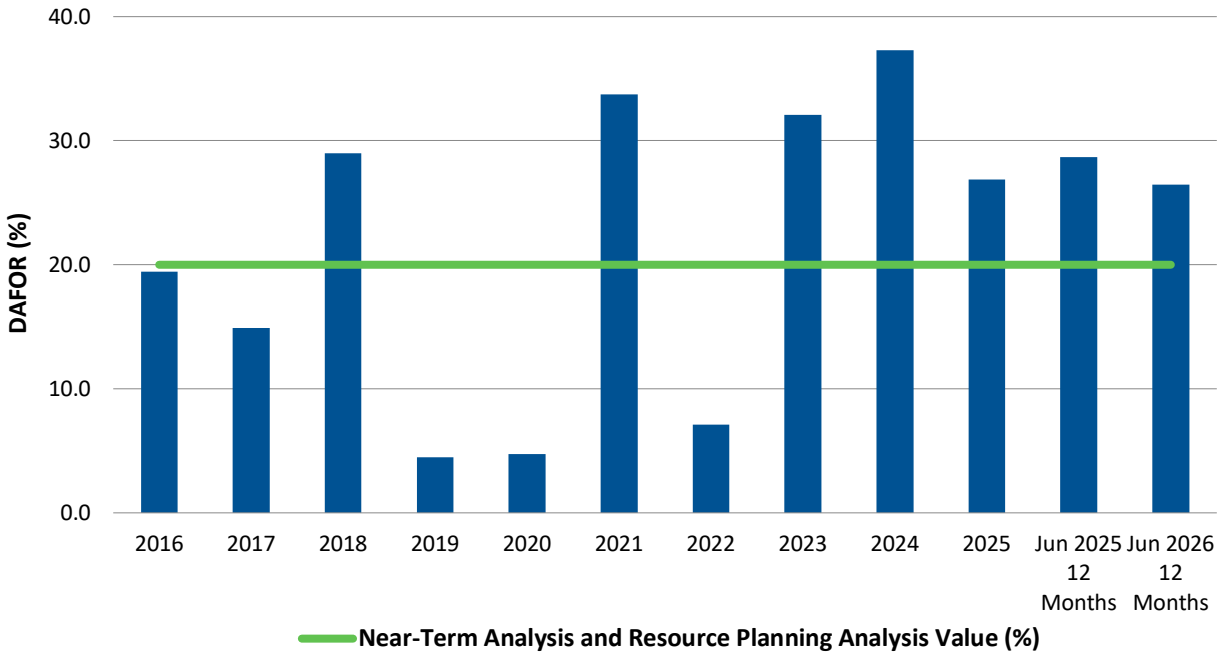


**Chart 3: Thermal DAFOR**

For the current period, the weighted DAFOR for all thermal units of 26.44% is above the 20.00% near-term and resource planning analysis values. The individual unit DAFOR outcome for the current period of 18.85% for Unit 1 and 10.79% for Unit 2 at the Holyrood TGS are below the 20.00% analysis value. The performance of Unit 3 at the Holyrood TGS is discussed in Section 6.1.

## 6.1 Holyrood TGS Unit 3

Considering individual thermal unit performance, the DAFOR of 72.84% for Unit 3 at the Holyrood TGS is above the near-term and resource planning analysis value of 20.00% for a unit at the Holyrood TGS and shows a decline in performance over the previous period. As previously reported, Holyrood TGS Unit 3 was unavailable due to planned maintenance and overhaul work, beginning March 30, 2025, which continued through the end of 2025.

As previously reported, Unit 3 returned to full 150 MW availability on February 22, 2026. Subsequent vibration issues with the west forced draft fan resulted in required deratings, including to 40 MW and later 50 MW. Following bearing replacement and further investigation, it was determined that the fan requires balancing, which is planned for the annual maintenance outage. The unit remained available at 50 MW until it was placed in standby on March 21, 2026, and began its planned annual maintenance outage on March 29, 2026.

# 7.0 Combustion Turbine DAUFOP Performance

DAUFOP Performance for the Happy Valley, Hardwoods and Stephenville GTs, as well as the Holyrood CT for the period, are presented in the charts and tables below.

The DAUFOP for the Happy Valley GT was 11.24% for the current period, as shown in Table 8 and Chart 4. This is above the near-term and resource planning analysis value of 4.65% and indicates a decline in performance over the previous period. As the forced outage rate for the Happy Valley GT exceeds the established near-term and resource planning analysis values, a discussion on the same is included in Section 7.1.

**Table 8: Happy Valley GT DAUFOP**

| GT Unit | Maximum Continuous Unit Rating (MW) | 12 months Ended Jun 2026 (%) | 12 months Ended Jun 2025 (%) | Near-Term Planning and Resource Planning Analysis Value (%) |
|---|---|---|---|---|
| Happy Valley | 25 | 11.24 | 0.00 | 4.65 |

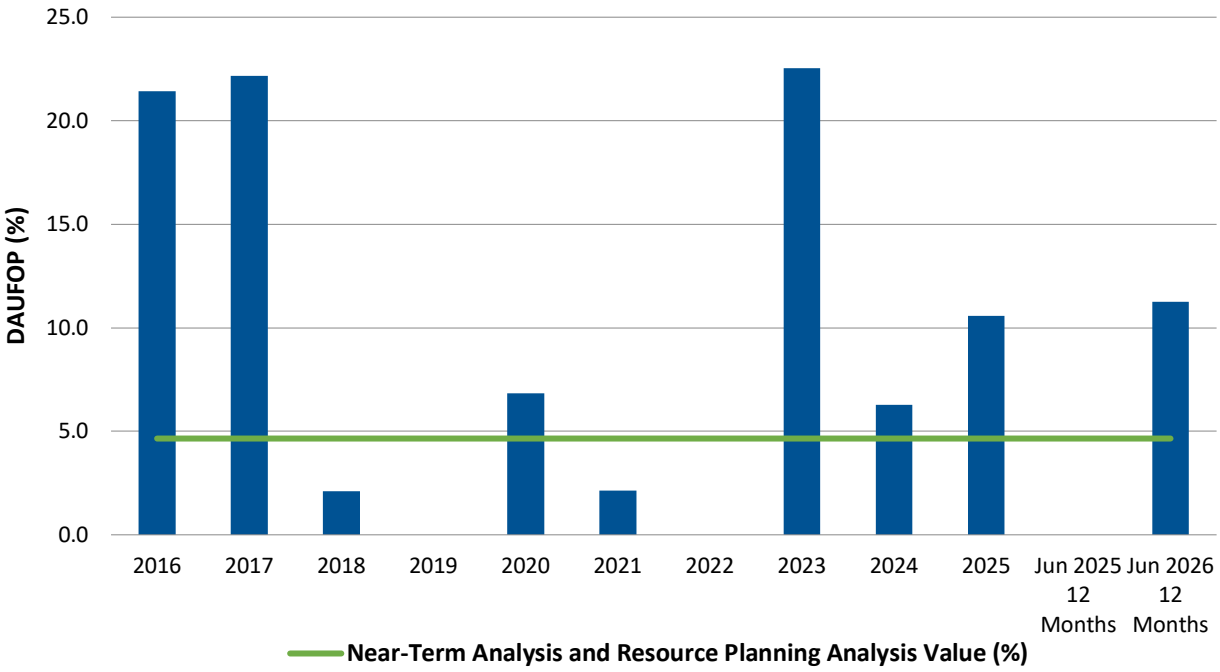


**Chart 4: GT DAUFOP – Happy Valley Unit**

The combined DAUFOP for the Hardwoods and Stephenville GTs was 8.98% for the current period, as shown in Table 9 and Chart 5. This is below the near-term and resource planning analysis value of 30.00%.

The Stephenville GT DAUFOP for the current period is 13.80%, which is below the near-term and resourcing planning assumption of 30.00%. The Hardwoods GT DAUFOP for the current period is 4.89%, which is below the near-term and resource planning assumption of 30.00%.

**Table 9: Hardwoods/Stephenville GT DAUFOP**

| GT Units | Maximum Continuous Unit Rating (MW) | 12 months Ended Jun 2026 (%) | 12 months Ended Jun 2025 (%) | Near-Term Planning and Resource Planning Analysis Value (%) |
|---|---|---|---|---|
| **GTs** | **100** | **8.98** | **17.53** | **30.00** |
| Stephenville | 50 | 13.80 | 32.45 | 30.00 |
| Hardwoods | 50 | 4.89 | 0.00 | 30.00 |

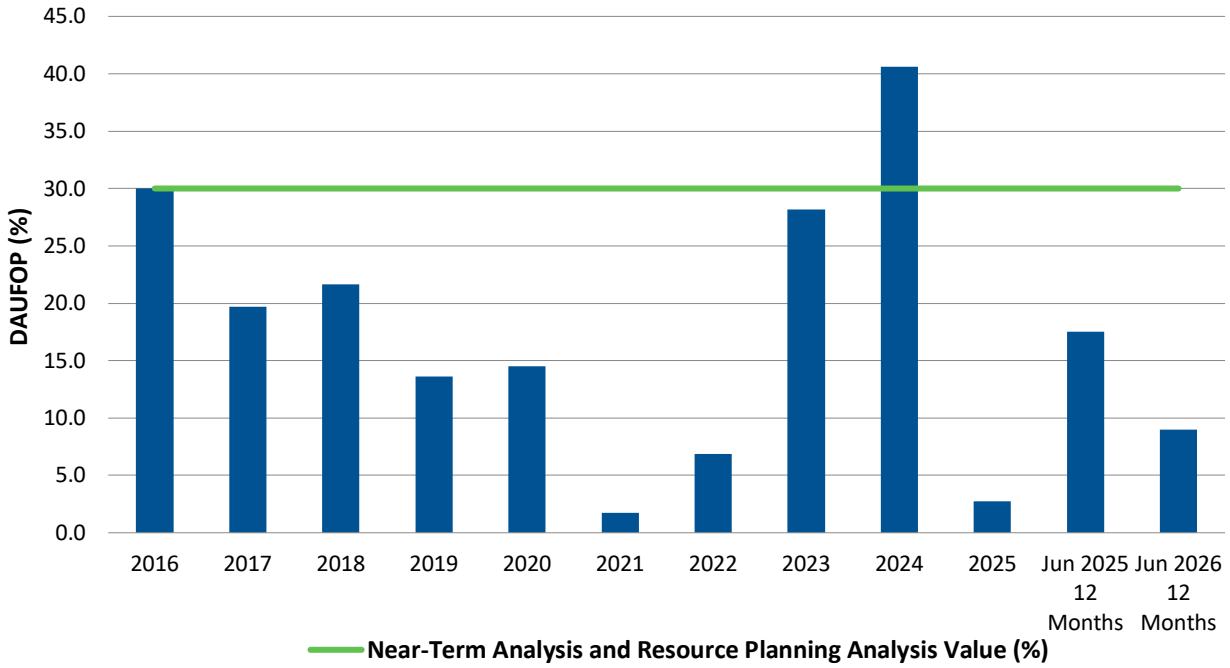


**Chart 5: GT DAUFOP – Hardwoods/Stephenville Units**

The Holyrood CT DAUFOP of 27.62% for the current period is above the near-term and resource planning analysis value of 4.90% and indicates a decline in performance when compared to the previous period, as shown in Table 10 and Chart 6. As the forced outage rate for the Holyrood CT exceeds the established near-term and resource planning analysis values, a discussion on the same is included in Section 7.2.

**Table 10: Holyrood CT DAUFOP**

| Combustion Turbine Unit | Maximum Continuous Unit Rating (MW) | 12 Months Ended Jun 2026 (%) | 12 Months Ended Jun 2025 (%) | Near-Term Planning and Resource Planning Analysis Value (%) |
|---|---|---|---|---|
| Holyrood | 123.5 | 27.62 | 8.16 | 4.90 |

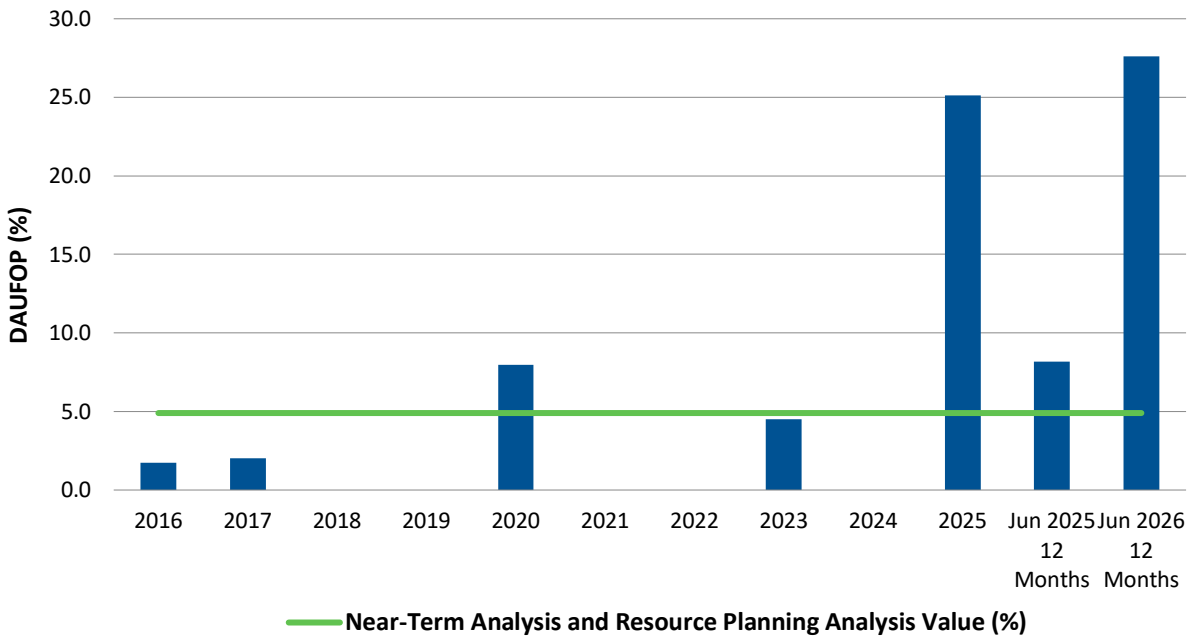


**Chart 6: CT DAUFOP – Holyrood Unit**

## 7.1 Happy Valley Gas Turbine

The Happy Valley GT DAUFOP was 11.24% for the current period, which is above the near-term and resource planning analysis value of 4.65%. This decline in performance is a result of outages experienced on July 12, 2025, as previously reported. There have been no additional outages or derates since the previous filing. Due to the low percentage of operating time experienced by the Happy Valley unit in the current period, forced outages have a significant impact on the DAUFOP performance.

## 7.2 Holyrood Combustion Turbine

The Holyrood CT DAUFOP was 27.62% for the current period, which is above the near-term and resource planning analysis value of 4.90%. This decline in performance is the result of forced outages, as previously reported. There have been no additional outages or derates since the previous filing. Due to

the low percentage of operating time experienced by the Holyrood CT in the current period, forced outages have a significant impact on the DAUFOP performance.

# 8.0 Labrador-Island Link EqFOR Performance

The EqFOR for the LIL was 1.25%[19] for the current period, as shown in Table 11. This is within the range of values used by Hydro in the resource planning analysis scenarios.

**Table 11: LIL EqFOR (%)**

| Asset Type | Measure | 12 Months Ended Jun 2026 (%) | 12 Months Ended Jun 2025 (%) | Base Planning Analysis Value | Range of Planning Analysis Values |
|---|---|---|---|---|---|
| LIL | EqFOR | 1.25 | 1.16 | 5 | 1–10 |

The availability of the three Soldiers Pond Synchronous Condensers ("SCs") is critical to the reliable delivery of electricity to the Island Interconnected System via the LIL. No operational issues concerning the Soldiers Pond SCs resulted in outages or derating to the LIL in the current period.

A fulsome update on the total number of hours of operation for the Soldiers Pond SCs for the rolling 12-month period is provided in Appendix A of this report.

[19] This EqFOR is calculated on a base LIL capacity of 900 MW. Following the completion of the 900 MW test, all calculations have been adjusted to reflect the change in capacity.

# Appendix A

## Soldiers Pond Synchronous Condensers

**Table A-1: Quarterly Rolling 12-Month Operating Hours for Soldiers Pond SCs**

| Unit | Operating Hours[1] | % Availability[2] |
|---|---|---|
| SC1 | 8,039.77 | 91.78% |
| SC2 | 6,997.43 | 79.88% |
| SC3 | 8,142.53 | 92.95% |

1 Further information on the operation of the Soldiers Pond SCs is provided in Appendix B.

[1] Hydro has provided its best estimate of operating hours for each unit for the 12 months ended June 30, 2026, based on an assumption of 24/7 operation of all three SCs and known outages (both planned and unplanned) recorded in its database.
[2] SC availability is calculated based on the unit's operating hours and therefore assumes that the unit is operating when available.

# Appendix B

## Muskrat Falls Assets Update

Reporting period up to June 30, 2026

# Contents

# 1.0 Introduction

The Muskrat Falls Assets, made up of the LIL, which includes the Soldiers Pond SCs, the Labrador Transmission Assets and the Muskrat Falls Hydroelectric Generating Facility, have all been commissioned in recent years and are in the early years of their expected lifespans.

Hydro provides the following update to the Board on the status of ongoing asset-related activities and other information as requested by the Board.

# 2.0 Muskrat Falls Hydroelectric Generating Facility

Muskrat Falls was commissioned in November 2021. The Muskrat Falls Plant continues to outperform similar units across Canada, with a 12-month rolling average derated adjusted forced outage rate performance through the end of the second quarter of 2026 of 1.14%, which was significantly better than the Electricity Canada average of 6.02%.

# 3.0 Soldiers Pond Synchronous Condensers

Hydro continues to address the remaining items that were noted in punch list reports submitted with the commissioning certificate and outstanding warranty claims.

## 3.1 Operations Items

***Brush Gear***

Hydro, in consultation with the original equipment manufacturers ("OEM") for the brush equipment and the SCs, has been working to identify the root cause of the brush performance issues observed in 2023. At the recommendation of the respective manufacturers, Hydro has implemented modified brush configurations and operational controls. These changes resulted in improved brush performance through late 2025. Hydro will continue to monitor the overall impact of these changes.

Inspection of the SC3 brushgear completed in mid-December 2025 indicated continued improved performance on the main slip ring and brushes;[1] however, investigation is ongoing regarding an issue on a grounding brush.[2] Investigation into the ground brush performance revealed that there is a more

[1] Inspections completed on SC1 and SC2 in November 2025, indicated continued improved performance from the brushgear.
[2] As this issue is only occurring on SC3, the operational impact is minimal.

suitable brush for the unit shaft size and rotational speed available. Hydro and the OEM have selected a more suitable ground brush that was installed in the second quarter of 2026.

Overall brush performance has been good on all three units at Soldiers Pond.

***Forced Outages***

There were no forced outages during the second quarter of 2026.

# 4.0 Labrador-Island Link

Since commissioning in April 2023, the LIL has been in service and successfully providing power to the provincial grid. Test documentation has been reviewed and accepted, and the LIL has been released for operation up to 900 MW by the Newfoundland and Labrador System Operator and the Government of Canada's Independent Engineer.

## 4.1 Operations Items

***Forced Outages***

During the second quarter of 2026, there was one unplanned outage on the LIL. On June 6, 2026, the LIL experienced a bipole trip due to an issue with the transfer of backup supply for station service, causing an under-frequency load shedding event on the Island. Subsequent analysis has determined that a minor software reconfiguration can prevent this situation from occurring in future; an engineered solution is to be implemented to modify the original design. In the interim, procedural controls have been implemented to prevent reoccurrence of this issue.

***Cable Switching***

Disconnects at the Shoal Cove and L'Anse aux Diable transition compounds have experienced ice and snow accumulation in the operating arm receivers, which has affected cable switching. The OEM has proposed an ice guard which would prevent snow accumulation. An initial ice guard design was developed by the OEM and installed in 2025 but proved ineffective. An improved ice guard design was installed in the first quarter of 2026; however, it too proved ineffective. General Electric ("GE") is revising the design with the disconnect manufacturer; Hydro is awaiting approval of the new design prior to re-installation, with the intent to have installation completed during an outage in fall 2026. In

the interim, Hydro has developed operating procedures to ensure reliable operation in winter conditions.

***Replacement of Direct Current Current Transformers***

In 2023, the OEM and Hydro determined that very low air temperatures were influencing the measurement accuracy of Direct Current Current Transformers ("DCCT") at the Muskrat Falls Converter Station, 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 Fibre Optical Cable located within the DCCTs; this issue occurred with a select batch of fibre optic cables, affecting six DCCTs at the Muskrat Falls HVdc[3] Converter Station, which have since been replaced.[4]

In November 2025, 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, which are expected in the third quarter of 2026. Hydro will continue to work with GE and the OEM to ensure proper mitigation of the issue.

There were no DCCT operational issues identified in the second quarter of 2026.

## 4.2 Capital Projects

***Optimizing Clamp Designs***

During December 2022, March 2024, and January 2025, the LIL experienced damage to electrode conductor suspension clamps during significant ice loading, the root cause of which was determined to be overloading due to ice loads which exceeded the design limits of the conductor, and ice shedding. Three alternative suspension clamp designs have since been installed on the electrode conductor at ten structures in critical sections of the line and will be inspected yearly for performance.[5] As the length and design of the electrode assembly contributed to the failures of the electrode conductor and crossarms, an assessment and redesign of the electrode suspension assembly was completed in 2025, with the assemblies to be purchased and installed as required through the 2026–2028 LIL Strengthening Capital

[3] High-Voltage Direct Current ("HVdc").
[4] The remaining DCCT which had an operation rating to -40°C was replaced with a DCCT rated to -50°C in June 2026.
[5] The alternative clamp design is intended to reduce static and dynamic stresses at the support point, protecting the conductor against the effects of oscillations.

Project.[6,7] The redesign will increase the length of the electrode assembly and will allow more longitudinal swing under unbalanced ice loads, decreasing the chance of contact with insulators and deformation of the conductor, and decreasing the longitudinal load on the crossarm.

Additional conductor testing has been completed from these incidents, with further recommendations outlined within the most recent investigation report. Hydro will progress the investigation into the possibility of conductor damage from extreme weather events and excessive plastic deformation resulting from exceedance of the conductor tension limits as a potential contributing factor to failure.[8] Additionally, Hydro has initiated an investigation of radiography and other methods of non-destructive testing by performing a preliminary corona discharge survey of conductor and substation equipment in Labrador.[9]

During operation, it was found that the optical power ground wire ("OPGW") was sliding through the suspension clamps during unbalanced ice loading due to insufficient slip strength. An alternative OPGW suspension clamp assembly was designed and ordered in 2024. Clamps were installed in some areas in 2025, with others to be installed during upcoming maintenance and repairs work in 2026 and in future years as required. Additionally, clamp installation for 309 Type A1 towers is included within the scope of the 2026–2028 LIL Strengthening Capital Project.[10] 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.

***Top Plate Design***

In December 2022, there were two incidents impacting two adjacent structures of the LIL, where the connection of the top plate of the OPGW suspension insulator assembly detached from the tower, falling onto the cross arm. Engineering analysis determined that an error was made in the design of the top plate of some towers. This error could lead to a bending of the top plate (in tower types A2, B1, and B2) or a failure of the bolt connection resulting in the OPGW assembly detaching from the tower (in tower types A3 and A4). Additional analysis was completed to determine which towers were at risk of

[6] "Quarterly Report on Asset Performance in Support of Resource Adequacy for the Twelve Months Ended December 31, 2025", Newfoundland and Labrador Hydro, February 5, 2026, app. B, att. 1.
[7] Contract award for this scope is in progress, with the procurement schedule to start on contract award.
[8] The installation of ice and weather monitoring equipment will provide information that will help inform this investigation.
[9] The results are currently under review, and next steps will be determined based on the findings.
[10] Contract award for this scope is in progress, with work scheduled to start this year.

failure. The analysis confirmed that 63 towers across two tower types (A3 and A4) required top plate reinforcement. As of the end of 2024, 61 of 63 were reinforced, which represents all A3 towers. The two remaining top plates are on A4 tower types. Installation work to strengthen top plate connection is expected to begin in 2026, with contract award for this scope in progress and expected completion in 2028.

The other structures, which include A2, A3, A4, B1, and B2 towers, which did not have top plate reinforcement work completed, may experience bending of the top plate, which would not result in failure of the OPGW connection or an outage of the line. An engineering consultant was engaged to complete the reinforcement design of these other tower types, and this design and cost estimate were completed in the third quarter of 2025. To date, there have been no issues with other tower types; these structures could be repaired as part of annual maintenance, if required. Hydro will keep the alternate design in stock as a precaution and will schedule installation on other tower types as required if deformation of the top plate occurs.

***Ice Monitoring***

In response to icing experienced on the LIL, Hydro has undertaken capital projects for the installation of a real-time weather station, as well as the installation of in-line ice and galloping monitoring equipment. In-line monitoring equipment has been installed in all three planned locations in 2025. A second real-time monitoring station is planned for installation in central Labrador in late 2026.

## 4.3 Software

A new version of the software was delivered in the fourth quarter of 2025, with installation occurring during planned outages in June 2026, and commissioning completed July 4, 2026.

## 4.4 Ongoing Investigations

There are no new investigation outcomes to report for this period.

## 4.5 Restoration Plans and Operational Strategy

Hydro is currently in the process of contracting a consultant to review Hydro's restoration plans, including review and development of specific restoration plans for a variety of potential and previously experienced scenarios. It is expected that this review will include the identification of alternative

restoration approaches that can be selected based on the situation for the most efficient and effective execution of the work. Restoration plans will consider geographic and weather challenges. Restoration plan reviews will include estimates of the time to affect the repairs, as well as time challenges and opportunities for restoration duration and provide cost and benefit information to identify incremental investment in restoration time improvement and quantify the associated benefits.

# 5.0 Conclusion

Hydro recognizes the criticality of the Muskrat Falls Assets to the supply of the Island Interconnected System, which helps to limit the thermal generation required from the Holyrood TGS and impacts the overall reliability of the grid. Hydro will continue to monitor the performance of these assets to address early-life incidents such as those due to manufacturing issues or defective components.