Q. **Reference: Hydro's response sent December 16, 2025 to "Follow-up Questions for NL Hydro - Relating to Cost of Service Methodology" posed by the Consumer Advocate.**

Hydro states (page 9) "It is important to note that the Final LIL UFLS Scheme was not implemented at this time, which meant that only approximately 387 MW of LIL energy could be sunk on the Island during this peak period. With the implementation of the Final UFLS Scheme, with a LIL capacity of 700 MW, approximately 512 MW can be sunk on the Island Interconnected System; an increase of approximately 125 MW under the same load and system conditions."

a) When was this "Final LIL UFLS Scheme" adopted and implemented as part of Hydro's planning process?

b) Does this 125 MW increase in capacity impact the retirement dates of Holyrood TGS, Hardwoods gas turbine or Stephenville gas turbine?

c) Does this 125 MW increase in capacity delay the need for Bay d'Espoir Unit 8 and/or the Avalon CT?

(i) If so, what are the revised need dates for these projects?

(ii) If not, why not?

d) What is the effective capacity of the following? More specifically, how much firm capacity does each of the following facilities add to the system in Hydro's planning studies used to determine supply adequacy?

(i) the LIL/Muskrat Falls;

(ii) Holyrood TGS;

(iii) Hardwoods gas turbine;

(iv) Stephenville gas turbine;

(v) Bay d'Espoir Unit 8; and,

(vi) the Avalon CT assuming 1 x 150MW units and 6 x 25 MW units.

A. **a)** The final under-frequency load shedding ("UFLS") scheme ("Final UFLS Scheme") was designed as part of the Final Lower Churchill Project Operational Study ("Stage 4F Study")[1] with the objective to increase the Labrador-Island Link ("LIL") bipole transfer limits. Newfoundland and Labrador Hydro ("Hydro") worked with Newfoundland Power Inc. to modify the limits, which became operational on November 24, 2025.

b) The implementation of the full UFLS scheme does not impact the retirement dates of Holyrood Thermal Generating Station ("Holyrood TGS"), Stephenville Gas Turbine ("GT"), or Hardwoods GT. The primary objective of the Stage 4F Study, as it relates to the *Reliability and Resource Adequacy Study Review,* is to determine the technical viability of increasing the amount of allowable UFLS with the purpose of increasing LIL bipole transfer limits to improve the LIL-Maritime Link relationship. Analysis was performed as part of the Stage 4F Study that quantified the improvement of the LIL-Maritime Link relationship. This improvement in the LIL-Maritime Link relationship will facilitate more energy that can be absorbed on the Island Interconnected System and potentially reduce or defer the requirement for additional future firm energy sources on the Island Interconnected System. This incremental increase in Net dc[2] using the Final UFLS Scheme will reduce the firm energy deficit analyzed in each Island Interconnected System load forecast scenario that was presented in the 2025 Build Application[3] by approximately 450–500 GWh.[4] This reduction results in less firm energy resources required to meet the Island Interconnected System firm energy criteria. As the least-cost resource option to meet the firm energy requirement was identified as wind, a capacity credit was assigned to this resource in the recommended Minimum Investment Required expansion plan. Therefore, the reduction of the amount of wind required will result in the reduction of the capacity contribution from wind as presented in the Minimum Investment Required expansion plan. The Final UFLS Scheme does not have any impact on the capacity projects recommended in the 2025 Build

[1] "Final LCP Operational Study (Stage 4F) Report," TransGrid Solutions Inc., June 26, 2025, provided as Attachment 1 to "Final LCP Operational (Stage 4F) Study – Overview," Newfoundland and Labrador Hydro, August 11, 2025.
[2] Direct current ("dc").
[3] "2025 Build Application – Bay d'Espoir Unit 8 and Avalon Combustion Turbine," Newfoundland and Labrador Hydro, March 21, 2025.
[4] *Supra,* f.n. 3, sch. 3, sec. 4.0.

Application—Bay d'Espoir Unit 8 and the Avalon Combustion Turbine ("CT"). A full update to the firm energy analysis will be provided in the next Resource Adequacy Plan.

c) Please refer to Hydro's response to part b).

d) Below is a summary of the effective (firm) capacities of each facility:

(i) Please refer to the 2024 Resource Adequacy Plan,[5] Appendix B, page 29 of 57, Table 3. The total firm capacity at Muskrat Falls (across Units 1–4) totals 824 MW of firm capacity. In the winter months, Muskrat Falls generation is limited to between 600 MW and 660 MW of continuous generation.

In terms of the available capacity that can be supplied to the Island Interconnected System via the LIL, please refer to the discussion in the 2024 Resource Adequacy Plan, Appendix B, Section 5.1.2.2, pages 29–30 of 57. Summarized here, the LIL has been commissioned and tested to supply 700 MW of firm capacity. The LIL was designed for 900 MW capacity, and its firm capacity will be increased to 900 MW upon the successful completion of high-voltage testing, planned for later this winter.

(ii) Please refer to the 2024 Resource Adequacy Plan, Appendix B, page 30 of 57, Table 4, for the existing Island Interconnected System firm capacities for thermal and CT assets, including the Holyrood TGS. It is important to note that the installed/firm capacity is expected to be eliminated beyond the end of the 'Bridging Period,'[6] as part of asset retirement. In this analysis, it is assumed that an hourly capacity restriction was placed on the Holyrood diesels based on environmental restrictions.

(iii) Please refer to the 2024 Resource Adequacy Plan, Appendix B, page 30 of 57, Table 4, for the existing Island Interconnected System firm capacities for thermal

[5] "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).

[6] 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.

and CT assets, including the Hardwoods CT. It is important to note that the installed/firm capacity is expected to be eliminated beyond the end of the 'Bridging Period,' as part of asset retirement.

(iv) Please refer to the 2024 Resource Adequacy Plan, Appendix B, page 30 of 57, Table 4 for the existing Island Interconnected System firm capacities for thermal and CT assets, including the Stephenville GT. It is important to note that the installed/firm capacity is expected to be eliminated beyond the end of the 'Bridging Period,' as part of asset retirement.

(v) Please refer to the 2024 Resource Adequacy Plan, Appendix C, page 26 of 163, Table 1. The rated and firm capacity of Bay d'Espoir Unit 8 is approximately 154.4 MW.

(vi) Please refer to the 2024 Resource Adequacy Plan, Appendix C, page 26 of 163, Table 1. The rated and firm capacity of a CT unit is approximately 141.6 MW, which is an assumed component of the minimum investment decision.