Q. **Reference: Reliability and Resource Adequacy Study 2022 Update, Volume I, Attachment 1.**

a) Describe whether Daymark should be interpreted as agreeing with all Hydro actions, matters, observations, and circumstances that it notes without explicitly stating agreement, or should be interpreted as agreeing only with respect to cases where it expresses agreement specifically.

b) If there are areas where Daymark disagrees regarding Hydro actions, matters, observations, and circumstances noted without express statements of its concurrence with them, describe each of those areas of disagreement.

c) Regarding actions Daymark reported as subject to consideration or possible action, but with respect to which it did not specifically recommend action, list all that it believes should be done as opposed to considered for execution.

d) Explain whether Daymark's assessment of Holyrood was undertaken with knowledge of potential changes identified by studies performed by others.

e) Describe whether Daymark has done any of its own analyses on what can be changed physically at Holyrood or in its operations and how effectively or economically changes would allow it to continue serving longer term

f) Provide plans, schedule, and status for further Daymark work.

g) Describe in detail specific elements of Daymark views on monitoring reliance on Holyrood and Hardwoods units and the issues, concerns, or criteria on which that monitoring bears, given plans for their retirement and other Daymark statements about the propriety of such reliance.

A. *Parts a) to e) and g) of this response have been provided by Daymark Energy Advisors ("Daymark").*

a) As outlined in its memo, "2022 Reliability & Resource Adequacy Process Review" ("Process Review Memo"),[1] Daymark's assessment was focused on reviewing Newfoundland and Labrador Hydro's ("Hydro") overall planning process as it relates to resource adequacy, which was found to be generally consistent with approaches used in the industry. Daymark's scope for this effort did not include a review of all Hydro actions, matters, observations, and circumstances.

b) Please refer to part a) of this response as well as the Process Review Memo wherein Daymark outlines the scope of its assessment, its findings, and potential areas for future consideration as Hydro's planning process continues to evolve.

c) Daymark believes that the issues raised in the Future Considerations section of its Process Review Memo[2] all merit follow-up action by Hydro. A more detailed review based on the Labrador-Island Link's ("LIL") operating experience, as well as more specific information on the cost implications and feasibility of alternative actions, is needed to make an informed decision as to how best to balance the challenge of providing least-cost, reliable energy.

d) Daymark's assessment of the Holyrood Thermal Generating Station ("Holyrood TGS") included a high-level review of the potential changes identified in studies performed by others. Daymark has not performed an independent engineering assessment of the Holyrood TGS.

e) Please refer to part d) of this response.

f) At this time, Hydro has not Daymark engaged for further work. Hydro plans to engage Daymark to assist with the Reliability and Resource Adequacy Study – 2023 Update before the end of the first quarter of 2023.

[1] "Reliability and Resource Adequacy Study – 2022 Update," Newfoundland and Labrador Hydro, October 3, 2022, vol. I, att. 1.
[2] Ibid., p. 5–6.

g) In the Future Considerations section of the Process Review Memo, Daymark discussed the following as it related to continuing reliance on Holyrood TGS to reliably meet the on-Island needs.

> To address an immediate need to back-up the LIL on an interim basis, Hydro is planning to extend the operation of Holyrood GTS and Hardwoods GT, potentially through 2030. **This decision is based on the lack of readily available options for backing up the LIL.**
>
> **Continuing to rely on aging thermal facilities (i.e., Holyrood TGS and Hardwoods GT) as critical to reliably meet Hydro's on-Island electricity needs is a growing concern that bears close monitoring.** Holyrood TGS was designed as a base load unit, and as such it is ill-equipped to reliably handle the thermal cycling and fast starting requirements to serve as a backup for the LIL, as Hydro has acknowledged. **To better position Holyrood TGS in this backup role, Hydro intends to invest in capital improvements to the facility. In addition, operational changes are being made to how the units are dispatched to hopefully improve Holyrood's reliability and responsiveness.** During periods of anticipated high demand Holyrood TGS will be placed online prematurely in anticipation of a potential need. Hydro will continue to look to develop operational strategies to optimize the dispatch of the units to manage start-up challenges while minimizing cost. **While these strategies may be effective in improving Holyrood TGS reliability, actual experience is needed to properly evaluate their effectiveness.**
>
> **Strong consideration should be given accelerating their replacement prior to 2030. Daymark is aware and very much supportive of Hydro's ongoing efforts to study what would be required to accelerate the integration of renewable energy into the electrical grid.**[3] [emphasis added]

Given the continued reliance on the Holyrood TGS and the Hardwoods Gas Turbine is being driven by the "lack of readily available options," more emphasis needs to be placed on identifying such options.

Further, the effectiveness of the planned "capital improvements" and "operational changes" to improve the reliability and responsiveness of the Holyrood TGS are uncertain—both in resulting performance and cost to implement. Daymark believes close monitoring of both performance and cost is warranted; all driven by the actual performance of the LIL and how frequently the thermal generators are required for backup.

[3] "Reliability and Resource Adequacy Study – 2022 Update," Newfoundland and Labrador Hydro, October 3, 2022, vol. I, att. 1, p. 5.