

1 Q. At Section 3.7.6 on page 10 of Schedule 2, Hydro states that it accepts Midgard’s
2 recommendation to “evaluate available technologies as diesel units come due for replacement”
3 since “renewable energy technologies are not currently technically or economically feasible for
4 the provision of firm capacity.”

5 a) Please provide clarification as to how Hydro intends to evaluate available technologies
6 as diesel units come due for replacement as the revised application now proposes a
7 non-phased approach and retirement before the end of life of the current diesel plants.

8 b) If the intention is to continue with a phased replacement, please provide a detailed
9 schedule and plan for this evaluation, including but not limited to, when the diesel units
10 are expected to need replacements and what criteria will be used.

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13 A. a) Newfoundland and Labrador Hydro (“Hydro”) is involved in a number of industry groups and
14 committees as a way to stay informed of advances in technology and their role in the
15 regulated utility business. This includes advances in renewable energy and energy storage
16 solutions. Some industry groups and committees in which Hydro participates include:

17 • Electricity Canada;¹

18 • The Center of Energy Advancement through Technical Innovation (“CEATI”)
19 International;²

20 • Atlantic Power Utilities Distribution Conference (“APUDC”);³

21 • Off-Grid Utility Association (“OGUA”);⁴ and

¹ Electricity Canada includes 40 member utilities from across Canada. Hydro is a member utility.

² CEATI International includes 130 member utilities globally. Hydro is a member utility. This provides access to various reports on traditional poles and wires asset management.

³ The APUDC is an annual conference of the Atlantic Canadian utilities including Newfoundland Power Inc., Hydro, Nova Scotia Power, Maritime Electric, Saint John Energy, and New Brunswick Power. These conferences include presentations and discussion by the utilities on various utility initiatives, and research.

⁴ The OGUA is a group of all major Canadian utilities that operate isolated diesel powered electrical system for remote communities across Canada.

- 1 • Efficiency Canada.⁵

2 As technology advancement allows Hydro to begin considering renewable energy systems
3 with or without energy storage as part of its isolated system firm capacity, Hydro will update
4 its Rural Isolated System Generation Planning Criteria.⁶ When diesel generation units reach
5 their end of life,⁷ or if additional generation is required to support load growth, Hydro will
6 conduct cost benefit analysis considering all technically feasible technologies to determine
7 which alternative allows Hydro to maintain its planning criteria in providing reliable service
8 at least cost, in an environmentally responsible manner.

9 As technology advancement occurs, Hydro will also evaluate the role of independent power
10 producer (“IPP”) facilities as part of Hydro’s firm capacity. While renewables and battery
11 storage remain cost-prohibitive for the provision of firm capacity, renewables with or
12 without storage can be utilized to provide energy, offsetting diesel fuel usage. Hydro is
13 currently purchasing power from IPP facilities in Ramea and Mary’s Harbour to offset diesel
14 fuel usage while diesel generation remains the sole source of firm capacity.

- 15 **b)** Hydro is not proposing a phased approach within its revised application.

⁵ Efficiency Canada is a research and policy group that focuses on maximizing the benefits of energy efficiency resulting in a sustainable environment and a productive economy.

⁶ “Long-Term Supply for Southern Labrador – Revision 1,” Newfoundland and Labrador Hydro, rev. May 31, 2023 (originally filed July 16, 2021), sch. 1, att. 1, app. D.

⁷ 100,000 hours for 1,800 rpm units, and 120,000 hours for 1,200 rpm unit. On average, Hydro’s diesel generation units typically reach 100,000 or 120,000 hours after about 25 years of operation.