

1 Q. **Reference: Midgard Consulting March 28, 2023 Report - Southern Labrador Communities –**
2 **Integrated Resource Plan**

3 Page 39 of 103 states that “Note that both MSH and CHT have mobile gensets, which should not
4 be used to calculate firm capacity as these are not intended for long term use.”

5 a) Please provide and explain Hydro’s position on whether mobile gensets should be used
6 to calculate firm capacity, including whether Hydro has at any time included mobile
7 gensets in its firm capacity calculation.

8 b) Is not including mobile generation as firm power consistent with industry practice. If so,
9 please provide examples.

10 c) Does Hydro have concerns related to stranded assets in the event non-mobile gensets
11 are installed to service the commercial peak load which may potentially be reduced or
12 eliminated? Please explain.

13 d) Please detail the costs associated with converting a mobile diesel genset in southern
14 Labrador to a unit that Hydro considers capable of providing firm power.

15 e) Does Hydro’s decision to view mobile generators as being a source of non-firm power
16 impact their future deployment viability within Hydro’s service territory? If so, please
17 detail. If not, please explain.

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20 A. a) Newfoundland and Labrador Hydro’s (“Hydro”) position is that that mobile gensets should
21 not be used to calculate firm capacity in its isolated systems to meet winter peak conditions
22 (with the exception of L’Anse-au-Loup as noted below). Hydro has used mobile gensets to
23 meet its summer firm capacity requirements in Charlottetown before the loss of the diesel
24 plant, and Mary’s Harbour, on an interim basis.

25 In Charlottetown and Mary’s Harbour, all three mobile gensets were installed in order to
26 meet sudden increases in load triggered by growth in the fishing industry. The two most
27 recent mobile genset installations were considered interim solutions to meet load growth

1 stemming from fish plant operations, and to avoid construction of new diesel plants until a
2 long-term plan for southern Labrador was developed.

3 The only other situation where Hydro includes mobile generation as part of a system's
4 winter firm capacity calculation is in L'Anse-au-Loup. The L'Anse-au-Loup system is
5 connected to Hydro-Québec, and although the connection is considered non-firm
6 generation, it does have a historical record of operating at a low unavailability rate.
7 Therefore, Hydro currently accepts including mobile generation as part of that system's firm
8 capacity.

9 **b)** The use of mobile generation as firm power in northern climates, such as Labrador, that
10 experience frigid temperatures and significant snowfall is not consistent with industry
11 practice. When surveyed in 2020 regarding mobile generator usages, multiple utilities
12 including Hydro One, Quilliq Energy Corporation, Cordova Electric, Northeast Territories
13 Power Corporation, and Manitoba Hydro indicated that they only use mobile generation in
14 emergencies as temporary installations, and that mobile generation is not included in firm
15 capacity.

16 **c)** Hydro believes the risk of asset stranding is low for diesel gensets, as they can be reused in
17 another community to replace a genset that is at end of life, as outlined in Hydro's response
18 to PUB-NLH-077 of this proceeding. Hydro carries out two capital projects for genset
19 replacements per year on average; this provides ample opportunity to reuse any gensets
20 that are no longer required in a certain community. Several of Hydro's gensets still in service
21 have been utilized in multiple communities.

22 **d)** It is Hydro's experience that it is not possible to increase the reliability of a mobile diesel
23 genset sufficiently enough for it be considered as firm capacity in southern Labrador.
24 Further, as described in part b), the exclusion of mobile gensets from firm capacity is
25 consistent with industry practice in northern climates such as Labrador.

26 Since 2019, Hydro has attempted an exhaustive list of modifications and winterizations to
27 mobile gensets in Charlottetown to render the mobiles capable of providing firm power;
28 however, Hydro has continued to experience breakdowns, fires, and catastrophic failures.
29 The only remaining option is to construct a building to house the full mobile unit; however,

1 it would be logistically easier and more economical to build an actual generating station and
2 remove the genset skid from the mobile container, permanently installing it in the engine
3 hall. There are several instances where Hydro has removed genset skids from mobiles and
4 permanently installed them in a diesel generating station, most recently Unit 2084 in
5 Postville in 2009.

6 e) Hydro's position on the use of mobile generation as a source of non-firm capacity in its
7 isolated systems has not changed and it will not impact the future deployment viability of
8 mobile generation. Mobile generation will still be used as an interim solution to address
9 emergency situations or supply unforeseen load growth until a viable long-term solution is
10 developed.