

1 Q. **Reference: Application, Page 2. Hydro states that the larger 545 kW unit gives added benefits**
2 **in case there is an unforeseen increase in load.**

3 a) Please identify the sources of additional expected load growth to 2030.

4 b) Please provide examples of unforeseen load i.e. a request for another community
5 building.

6 c) Does Hydro normally use possible unforeseen load in its planning criteria?

7 d) On the assumption that the new diesel generating station planned for 2028 will address
8 any future load growth, has Hydro investigated the possibility of having some of the
9 existing load deemed curtailable in the short term to address any shortfall until the
10 completion of the new diesel generating station?

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13 A. a) Additional expected load growth to 2030 includes one new domestic customer per year, one
14 2.1D customer (General Service 0–10 kW), and one 2.2D customer (General Service Over
15 10 kW). The 2.2D customer is the Department of Health and Social Development facility.

16 b) Unforeseen load growth could arise from any type of new service request.¹ Some examples
17 of large services served by Newfoundland and Labrador Hydro (“Hydro”) in its isolated
18 systems include:

19 • Pump houses;

20 • Community/multipurpose facilities;

21 • Municipal/Indigenous government facilities;

22 • Shops/stores;

23 • Hotels;

¹ Excluding fish plants, Hydro provides service to 22 General Service customers in its isolated systems with a peak demand greater than 50 kVA. The largest demand is over 200 kVA.

- 1 • Arenas/sports facilities;
- 2 • Healthcare facilities; and
- 3 • Fire halls.

4 **c)** Hydro’s planning criteria are used as general rules to guide Hydro’s planning activities in
5 determining the timing of system upgrades necessary to ensure adequate electricity supply
6 to its customers. The timing of system upgrades is typically determined by comparing the
7 system’s load forecast to Hydro’s appropriate planning criteria. Hydro’s planning criteria,
8 along with the load forecast, are considered the minimum requirement to determine how
9 much capacity should be gained through the system upgrades. Hydro considers it prudent to
10 apply a buffer between the minimum capacity required to achieve its planning criteria and
11 the additional capacity gained by completing the upgrades, particularly on systems
12 displaying consistent load growth and when the marginal cost of providing an incremental
13 capacity buffer is low compared to the cost of addressing unforeseen growth after the fact.

14 The exact buffer between the minimum capacity required to achieve its planning criteria
15 and the capacity gained with system upgrades is determined on a case-by-case basis. This
16 capacity buffer is generally determined considering the following factors:

- 17 • System capacity relative to potential demand requirements of new service requests
18 (e.g., construction of a fire hall in Postville will have a much greater incremental
19 impact on the load forecast than the construction of a fire hall in Labrador City,
20 therefore a greater relative buffer is required in Postville);
- 21 • Consequence of planning criteria violation (e.g., the risk of an extended outage
22 and/or potential for customer equipment malfunction); and
- 23 • Ability to respond to unexpected load growth (e.g., replacing a small amount of
24 overhead line could be completed much quicker than upgrading a diesel generating
25 unit).

26 **d)** In line with the *Electrical Power Control Act, 1994*, Hydro is mandated to ensure that all
27 sources and facilities for the production, transmission and distribution of power in the
28 province should be managed and operated in a manner that would result in consumers in

1 the province having equitable access to an adequate supply of power. As such, it would not
2 be appropriate for Hydro to deem existing loads curtailable to address any potential firm
3 capacity and bulk fuel storage criteria violations until the completion of the new diesel
4 generating plant. Additional information on Hydro's discussion with the Nunatsiavut
5 Government regarding curtailable agreements is included in Hydro's response to
6 PUB-NLH-007 of this proceeding.