

1 Q. **Reference: Response to Request for Information NP-NLH-027, Attachment 1**

2 Please provide in detail the reason for the increase in O&M costs when plants are replaced in
3 Alternative 1. In the response please provide a breakdown of O&M costs prior to plant
4 replacement and what is included in O&M costs after replacement.

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7 A. As indicated in Newfoundland and Labrador Hydro's ("Hydro") response to LAB-NLH-007 of this
8 proceeding, Hydro used two different methods for deriving the operations and maintenance
9 ("O&M") costs (not including fuel costs) for each diesel generating station and they depended
10 on if the diesel generating station was existing or a proposed new diesel generating station:

- 11 1. Existing Diesel Generating Station: The O&M costs of any existing diesel generating
12 station were determined by calculating a five-year average of historical O&M costs for
13 that diesel generating station; and
- 14 2. Proposed Diesel Generating Station: The O&M costs of a proposed diesel generating
15 station were estimated using the same methodology outlined in the report by Hatch
16 Ltd.¹ All diesel genset overhaul cost estimates were developed based on actual costs
17 from previously performed overhauls on similar sized units. The frequency of diesel
18 genset overhauls are based on operating hours, which varies depending on the rated
19 speed of the unit, as shown in Table 10 of the "Long-Term Supply Study for Southern
20 Labrador: Economic & Technical Assessment."² The projected operating hours for every
21 unit in each alternative were derived using load profiles and forecasts.

22 The increase in O&M costs when diesel generating stations are replaced in Alternative 1 is a
23 result of the change in methodology used to calculate O&M costs. This methodology involved
24 calculating both variable and fixed O&M numbers for each diesel generating station. The fixed

¹ "Coastal Labrador Energy - Southern Communities New Diesel Schemes - Class 3 Cost Estimates," Hatch Ltd., June 7, 2013, provided as Attachment 2 to Hydro's response to PUB-NLH-021 of this proceeding.

² "Long-Term Supply for Southern Labrador – Phase 1," Newfoundland and Labrador Hydro, July 16, 2021, sch. 1, att. 1, at p. 35.

1 O&M portion included Operator Salaries and Insurance. The Variable O&M is based on specific
2 parts and labour costs for each diesel engine as well as Lubrication Oil costs.

3 A high level of accuracy for these estimates was not crucial for economic analysis. As outlined in
4 Section 6.2 of the “Long-Term Supply Study for Southern Labrador: Economic & Technical
5 Assessment,”³ a significant deviation from the estimated O&M cost would have to occur for the
6 outcome of Hydro’s cost-benefit analysis to change.

³ “Long-Term Supply for Southern Labrador – Phase 1,” Newfoundland and Labrador Hydro, July 16, 2021, sch. 1, att. 1, at p. 43.