

1 Q. **Reference: Application Rev. 1, Volume 1, page 17**

2 It is stated (lines 23 to 25) *“This pro forma estimate is comprised of return on rate base and*
3 *depreciation. It does not reflect potential reductions in operating and maintenance charges (e.g.,*
4 *changes related to technology such as the conversion to LED streetlights where savings are*
5 *expected to be realized).”* What are the expected reductions in operating and maintenance
6 charges over the next five years resulting from the 2021 Capital Budget? Please provide a
7 forecast of operating and maintenance charges over the next five years with and without the
8 2021 Capital Budget.

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11 A. As outlined in Newfoundland and Labrador Hydro’s (“Hydro”) 2021 Capital Budget Overview
12 Presentation, approximately 82%¹ of Hydro’s 2021 capital investments are reliability/system
13 improvement related. The majority of these proposed projects are classified as Normal Capital²
14 as defined in the Capital Budget Application Guidelines. Hydro does not normally analyze or
15 forecast operations and maintenance savings associated with such projects.

16 The Street Light Modernization project included in Hydro’s 2021 Capital Budget Application
17 included an evaluation of cost savings associated with the use of LED³ street lights in its
18 interconnected operating areas. Once all street lights are replaced with LED fixtures under this
19 project, Hydro estimates an annual energy savings of \$324,556 and an annual maintenance
20 savings of \$120,144. Total energy savings are estimated at approximately \$741,000 during the
21 first five years of the modernization effort, with moderate reductions in maintenance costs, due
22 to Hydro’s systematic retirement of its existing mercury vapour and high pressure sodium street
23 lights.

¹ This value differs from the amount provided in the correspondence “2021 Capital Budget Application - Overview Presentation - Additional Information” Newfoundland and Labrador Hydro, September 21, 2020 as Additions for Load Growth - Happy Valley Line 7 was not included in the Load Growth totals.

² Normal Capital is defined as a capital expenditure that is required based on identified need or on historical patterns of repair and replacement.

³ Light emitting diode (“LED”).

1 Two projects proposed as 2021 capital investments are considered Justifiable Expenditures⁴ as
2 defined in the Capital Budget Application Guidelines. Cost savings related to these projects were
3 considered as part of Hydro's justification.

4 The Purchase Backhoe – Wabush project report provides a cost-benefit analysis indicating that
5 the purchase option is least-cost versus the rental option. This analysis was completed for a 15-
6 year time frame, reflecting the anticipated useful life of the backhoe. The break even time frame
7 was determined to be three years and the cumulative savings realized at the end of year five are
8 estimated to be \$69,000.

9 The Level 2 Chargers for Electric Vehicles project supports the integration of electric vehicles
10 within Hydro's vehicle fleet. Please refer to Hydro's response to PUB-NLH-020 of this proceeding
11 for an analysis of savings associated with the use of electric vehicles, including operating and
12 maintenance savings, over a ten-year evaluation period.

13 Hydro is unable to provide a forecast of operating and maintenance charges over the next five
14 years, with or without the 2021 Capital Budget, as the requested information is not available.

⁴ Justifiable Expenditures are defined as expenditures which are justified based on the positive impact the project will have on the utility's operations.