

1 Q. **Reference: Volume II - Tab 16 - Additions for Load - Distribution System - Mary's Harbour**
2 **Voltage Conversion**

3 Please provide the detailed analysis and assumptions used to compile the CPW values in Table 3
4 on page 8.

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7 A. Table 3 from the referenced project shows the cumulative net present value ("CPW) of four
8 alternatives, with Voltage Conversion having the lowest CPW of the alternatives. This analysis
9 compares each alternative over 20 years and uses Newfoundland and Labrador Hydro's
10 ("Hydro") corporate discount rate, each alternative's capital costs, and fuel costs considering
11 distribution losses.

12 Within the analysis Hydro included the capital cost of the Voltage Conversion in the year 2030
13 for Alternative 2: Reconductor with #4/0 Overhead Conductors, Alternative 3: Reconductor with
14 477 ASC Overhead Conductor, and Alternative 4: Install New Bank of 300 A Voltage Regulators.
15 If any of these alternatives were implemented instead of performing the voltage conversion in
16 2022 and 2023 as proposed, then a voltage conversion would still be required in 2030 to support
17 the interconnection of Mary's Harbour to the proposed southern Labrador interconnection.¹

18 Please refer to PUB-NLH-018, Attachment 1 for the detailed analysis spreadsheet of the CPW for
19 this project.

¹ If the proposed southern Labrador interconnection project is denied then Hydro will revisit Mary's Harbour Voltage Conversion proposal.