

1 Q. **Reference: Schedule 1 – Upgrade Report – Penstock 1 Life Extension – Bay d’Espoir.**

2 Appendix K, page 58 of 187, states that the effort required for inspections, maintenance and
3 repairs associated with the proposed Option 3 is expected to be half of that associated with
4 refurbishment Options 2 and 4. Please detail how the 50% reduction figure was determined.

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7 A. The referenced text in Appendix K states, “There will still be inspection and maintenance
8 requirements but they are expected to be half the effort when compared to the other two
9 options.”¹ The determination of the level of effort is a qualitative assessment by Kleinschmidt.
10 Since 2016, the majority of maintenance issues on Penstock 1 have occurred in the 17-foot
11 diameter penstock section. By implementing life extension Option 3, the problem area will be
12 replaced and weld repairs will no longer be required. The level of effort is also reflected in the
13 recommended inspection frequency from Kleinschmidt.

- 14 • Option 3: Dewatered inspections could occur every 3 to 5 years to assess coating
15 conditions and welds, with yearly inspections planned for the first 2 years of normal
16 operations to assess the coating system and welds.
- 17 • Options 2 and 4: Annual dewatered inspections continue over the next 30 years to
18 assess the condition of the welds. Regular monitoring of the coating system will be
19 required, yearly for the first 2 years and then every 3 to 5 years for Option 2 and every
20 3 years for Option 4, if the coating system shows no sign of deterioration.

¹ “Application for Approval of Capital Expenditures for Section Replacement and Weld Refurbishment for Bay d’Espoir Hydroelectric Generating Facility Penstock 1,” Newfoundland and Labrador Hydro, December 7, 2022, sch. 1, app. K, p. 58.