

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

2 In its discussion of Option 1 in Appendix K, page 81/82 of 187, Kleinschmidt notes that they
3 were unable to quantify the economic impact of not operating in the rough zone.

4 a) What is Hydro's estimate of the economic impact?

5 b) If the economic impact is not substantial, would Hydro's recommendation of Option C be
6 impacted?

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9 A. a) Kleinschmidt's reference in Appendix K¹ regarding the operational restrictions of the units
10 that are in place to reduce cyclic loading in the rough zone have an operational and
11 economic cost that Kleinschmidt was unable to quantify, refers to operation through the
12 rough zone, not in the rough zone. Not operating through the rough zone is meant to be a
13 temporary measure to reduce the risk of failure to the penstocks.

14 It is important to note that the risks associated with operating the penstocks cannot be
15 eliminated in the short term; ultimately, life extension work is required to remove risk from
16 penstock operation. While operating restrictions intended to limit operation through the
17 rough zone may result in the less efficient operation of the Bay d'Espoir Hydroelectric
18 Generating Facility, Newfoundland and Labrador Hydro ("Hydro") is unable to quantify these
19 potential impacts.

20 Hydro has not based the justification to refurbish Penstock 1 on the economic impacts of
21 operating through the rough zone. Further discussion on the potential impacts of not
22 operating through the rough zone is provided in Hydro's response to NP-NLH-001 of this
23 proceeding.

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, pp. 81–82.

- 1 **b)** Hydro's recommendation of Option 3² is justified based on reliability and risk mitigation; it is
2 not based on the economic benefits associated with the removal of operating restrictions.
3 As such, Hydro's recommendation would not be impacted if the economic impact associated
4 with such restrictions were not substantial.

² Hydro assumes Option C as noted in the question refers to Option 3.