

HAND DELIVERED

March 29, 2017

Board of Commissioners
of Public Utilities
P.O. Box 21040
120 Torbay Road
St. John's, NL A1A 5B2

Attention: G. Cheryl Blundon
Director of Corporate Services
and Board Secretary

Ladies and Gentlemen:

**Re: Newfoundland and Labrador Hydro – 2017 Capital Budget Supplemental Application –
Refurbishment of Bay d’Espoir Penstock 2 and Bay d’Espoir Unit 3 Turbine Major
Overhaul – Request for Comments**

Introductory

On March 3, 2017, Newfoundland and Labrador Hydro (“Hydro”) submitted an application to the Board requesting approval of certain capital expenditures proposed for Hydro’s Bay d’Espoir Hydroelectric Generating Station (“Bay d’Espoir”). In part, the Application seeks approval of a capital expenditure of an estimated \$9.1 million for refurbishment of Penstock 2 at Bay d’Espoir.

In Newfoundland Power’s submission, the request for the Board’s approval of the proposed expenditure on Penstock 2 is premature. Furthermore, the evidence submitted in support of the Application does not meet the requirements of the Capital Budget Application Guidelines (the “Guidelines”).

Newfoundland Power takes no issue with the proposed overhaul of Bay d’Espoir Unit 3.

The Application

The penstock refurbishment project proposed in the Application involves inspecting and assessing the welds in Penstock 2 at a cost of approximately \$0.1 million and, if refurbishment is found to be necessary, refurbishing the welds in Penstock 2 at a cost of approximately \$7.21 million. The remaining \$1.75 million of the total estimated capital expenditure consists of contingency and escalation costs.

The proposal to refurbish Penstock 2 is based solely on Hydro anticipating that the conditions that caused two weld failures experienced in Bay d’Espoir Penstock 1 in 2016 would also be found to exist in Penstock 2. Hydro has not yet performed the inspection and assessment of Penstock 2 required to confirm the existence of such conditions. Hydro has acknowledged that asking for approval to proceed with the refurbishment project “without confirmed evidence is not the normal approach.” Hydro has stated it chose to proceed in this fashion because “based on the conditions of penstock 1, and similar operating conditions for penstock 2, Hydro expects refurbishment to be required.”¹

¹ Response to Request for Information NP-NLH-006.

Submission

The Guidelines provide direction as to the Board's process for considering applications for approval of capital expenditures. The Guidelines require that capital expenditures should be segmented by their materiality as follows:

1. Expenditures under \$200,000
2. Expenditures between \$200,000 and \$500,000
3. Expenditures over \$500,000.

With respect to expenditures over \$500,000, the Guidelines state as follows:

"Expenditures of this amount are considered significant expenditures which must be supported with more comprehensive and detailed documentation than other expenditures. It is expected that all the items in the checklist will be addressed with either the information provided or an explanation of why it is not appropriate in the circumstances. Where appropriate, a utility is expected to provide a report/analysis by a qualified engineer or other appropriate expert in support of the expenditure."²

Hydro has confirmed that the justification for the proposed refurbishment is based on the condition of the welds in Penstock 1. Hydro states, "it is reasonable to expect that the welds in Penstock 2 are in similar condition as the welds in Penstock 1 considering the penstocks were constructed by similar design, at approximately the same time, and have been exposed to the same operating environment."³

In Newfoundland Power's submission, for an expenditure of this magnitude the Guidelines clearly contemplate a more comprehensive justification than a simple explanation of why it may be reasonable to expect that the expenditure is required. This is particularly so when there are facts in evidence which support a different conclusion. For example, an inspection carried out in 2016 did not reveal any evidence of a need to refurbish the welds in Penstock 2.⁴

Further, there are differences between Penstocks 1 and 2 which may be significant. The root cause analysis report on the Penstock 1 weld failure indicates that "there is a possible interrelationship between the location of the cracks and the condition of the backfill."⁵ While the report suggests there could be similar corrosion issues in Penstocks 2 and 3 as were found in Penstock 1, the report also notes as follows:

"There is one marked difference between these two penstocks and Penstock No. 1, and that is the backfill. There does not appear to be the same sloughing and sliding of the backfill for Penstocks

² See pages 6-7 of the Guidelines.

³ Response to Request for Information NP-NLH-002.

⁴ *Refurbish Penstock 2 – Bay d'Espoir Generating Station*, Appendix B, Page 19. The consultant's report on the inspection of Penstock 2 noted that, because only a visual inspection was carried out, deterioration of the welds similar to that experienced in Penstock 1 was not precluded. The report recommended that Hydro complete a detailed weld investigation within Penstock 2 in 2017.

⁵ Response to Request for Information, NP-NLH-003, Attachment 1, Page 22 of 157.

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No. 2 and No. 3, thus the stresses in the longitudinal joints is anticipated to be less...These penstocks have a different profile due to the bedrock elevation at each location. Hatch will be assessing the stresses in these two penstocks due to their backfill and providing recommendations if any remedial action is required.”⁶

Concluding

In conclusion, the Application provides no clear evidence of an immediate need to refurbish the welds in Bay d’Espoir Penstock 2. Based on the recent experience of the failure of portions of the longitudinal welds in Penstock 1, Newfoundland Power agrees it is reasonable that Hydro undertake the work necessary to perform a detailed inspection and assessment of the condition of the Penstock 2 welds. However, the request for approval of the expenditure of an estimated \$9.0 million to refurbish the Penstock 2 welds, in the absence of evidence confirming the need for such expenditure, is premature.

In Newfoundland Power’s submission, the Board should establish a process to permit expedited approval of such capital expenditures as are proven to be necessary for refurbishment of the penstock welds upon submission by Hydro of appropriate supporting evidence.⁷

We trust this is in order. If you have any questions, please contact the undersigned.

Yours very truly,



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⁶ Response to Request for Information NP-NLH-003, Attachment 1, Page 22 of 157.

⁷ A recent example of such expedited approval was the Board’s approval in Order No. P.U. 43 (2013) of Newfoundland Power’s capital expenditure of \$14.5 million to replace the Bell Island Submarine Cable.