

- 1 Q. Please refer to “Labrador Interconnected System Transmission Expansion Study” dated Revised  
2 April 3, 2019, Section 2.3, “Transmission Planning Criteria”, page 9 lines 9-17 and page 10 lines  
3 4-8:  
4
- 5 a. Please describe and explain the modification of Hydro’s approach to transmission planning  
6 for the Labrador Interconnected System that is referenced on page 9 lines 9-11.  
7
- 8 b. Please define the “rigid” transmission planning criteria that is referenced on page 9 lines 11-  
9 12.  
10
- 11 c. Please provide any studies and analyzes that support the conclusion on page 9 lines 16-17.  
12
- 13 d. Refer to page 9, lines 16-17, please provide an estimate of the costs of applying a strict  
14 application of transmission planning criteria on the LIS.  
15
- 16 e. Refer to page 10, lines 4-5, are any transmission planning criteria applied for the  
17 alternatives? If so, please describe the transmission planning criteria that are used.  
18
- 19 f. Refer to page 10, lines 5-8,  
20 i. How does Hydro determine the rate levels that are acceptable to consumers for the  
21 level of reliability referred to in line 7?  
22 ii. Does Hydro have estimates of how much consumers value different levels of  
23 reliability? If so, is that used in the analysis of the alternatives considered? If Hydro  
24 does have estimates of how much consumers value different levels of reliability but  
25 does not use it in the analysis of the alternatives, please explain why it is not used.

- 1 A. a. Newfoundland and Labrador Hydro's ("Hydro") approach to transmission planning for the  
2 Labrador Interconnected System would be in accordance with Standard TP-S-007<sup>1</sup>, with the  
3 exception that the loss of load is permitted for a transmission line outage.  
4
- 5 b. As per Hydro's response to part (a), Transmission Planning Criteria are defined in Standard  
6 TP-S-007.  
7
- 8 c. The conclusion on page 9, lines 16-17 is supported by the findings presented in the Labrador  
9 Interconnected System Transmission Expansion Study. Specifically, the strict application of  
10 Transmission Planning Criteria would require the immediate construction of additional  
11 transmission lines in both eastern and western Labrador to ensure no loss of load for a  
12 transmission line outage. Cost estimates for such lines were developed and are provided in  
13 Hydro's response to part (d).  
14
- 15 d. If transmission planning criteria were strictly applied, the addition of a second transmission  
16 line between Muskrat Falls and Happy Valley would be required, as well as a new transmission  
17 line to supply western Labrador. The second line from Muskrat Falls to Happy Valley would cost  
18 \$50 M. The new transmission line to supply western Labrador is estimated to cost in excess of  
19 \$153 M.  
20
- 21 e. Please see Hydro's response to part (a).  
22
- 23 f. Please see responses below:  
24
- 25 i. Hydro's determination of the rate levels that are acceptable to consumers is rooted in  
26 an assessment of reliable service. Hydro's benchmark for reliable operation is defined in  
27 its Transmission Planning Criteria, in accordance with Standard TP-S-007. Where  
28 practical, these criteria are applied to provide a standardized level of reliability. In  
29 circumstances such as those found in the Labrador Interconnected System, the strict  
application of Transmission Planning Criteria is not practical, as presented in Hydro's

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<sup>1</sup> <[http://www.oasis.oati.com/woa/docs/NLSO/NLSOdocs/TP-S-07\\_Transmission\\_Planning\\_Criteria\\_UPDATED\\_04132020.pdf](http://www.oasis.oati.com/woa/docs/NLSO/NLSOdocs/TP-S-07_Transmission_Planning_Criteria_UPDATED_04132020.pdf)>

1 responses to parts (c) and (d). A determination to make an exception to criteria is made  
2 on the basis of analyses such as the Labrador Interconnected System Transmission  
3 Expansion Study where cost estimates and reliability impacts are calculated. In this  
4 process, Hydro develops recommended solutions where Transmission Planning Criteria  
5 are met to the most reasonable extent possible. Solutions are then presented to  
6 customers, intervenors, and the Board of Commissioners of Public Utilities through a  
7 consultation process.

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- 9 **ii.** Please see Hydro's response to CA-NLH-009 for an overview of the digital engagement  
10 conducted in support of Hydro's 2018 Reliability and Resource Adequacy Study. The  
11 engagement was the first step in Hydro's longer term plan to engage electricity  
12 customers in its decision. The engagement results were not intended to provide  
13 statistically meaningful results, but rather to actively engage residents in the discussion  
14 and provide Hydro with qualitative information from respondents. Further, caution  
15 must be taken in interpretation of survey results and extension of findings to the  
16 Labrador Interconnected System as the majority of survey respondents were  
17 Newfoundland Power customers from either the eastern or Avalon regions of the  
18 province. As such, the survey results were not explicitly considered in the analysis of  
19 alternatives.