

1 Q. **Transmission Rate and Methodology**

2 References:

- 3 (i) NLH 2017 GRA, Evidence, chapter 5, page 5.35
- 4 (ii) NLH 2017 GRA, Evidence, chapter 5, page 5.35, footnote 51
- 5 (iii) NLH 2017 GRA, Evidence, chapter 5, page 5.36
- 6 (i) *« Labrador West transmission is nearing its capacity limitations. The*
- 7 *cost of providing new transmission to meet load growth on the*
- 8 *Labrador Transmission System is high and can materially impact*
- 9 *future customer rates. »*
- 10 (ii) *« 51 In OC2014-034, Hydro was directed to construct a new 230 kV*
- 11 *transmission line between Churchill Falls and Labrador West; the*
- 12 *budget for this line was approximately \$330 million. The project was*
- 13 *suspended in September 2014. »*
- 14 (iv) *« The capital cost of new transmission line facilities servicing*
- 15 *Labrador West from Churchill Falls is projected to be in the range of*
- 16 *\$5 to \$6 per kW. »*

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18 Please quantify the impact on the Labrador Industrial Transmission rate of the
19 construction of a new 230 kV line between Churchill Falls and Labrador West.

20 Please specify the assumptions and provide the detailed calculation of the impact
21 on rates.

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24 A. The estimated revenue requirement related to the capital investment based on the
25 2014 capital cost projection (excluding increased operating and maintenance costs)
26 is approximately \$24.7 million per year. Based on the 2019 Test Year forecast Power
27 on Order of 245 MW, approximately 60% of the additional transmission revenue

1 requirement (\$14.8 million) would be allocated to the Labrador Industrial
 2 Transmission customer class. This additional revenue requirement reflects an
 3 average monthly demand charge of \$5.05 per kW or approximately 0.9¢ per kWh.

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5 Table 1 provides the detailed assumptions used in the calculations.

6 **Table 1 Estimated Revenue Requirement Impact of Additional 230 kV Transmission Line From Churchill Falls to Labrador West**

	Particulars	Transmission Line
A	Average Useful Life (years)	55
B	2014 Estimated Capital (\$)	330,000,000
C	2019 TY Weighted Average Cost of Capital (%)	5.68%
Revenue Requirement (\$)		
D = B/A	Depreciation	6,000,000
E = B x C	Return	<u>18,744,000</u>
F= D + E	Incremental Revenue Requirement	\$24,744,000
G = 60% x F	Lab. Industrial allocation (60%)	\$14,846,400
H	2019 TY Forecast Power on Order (kW)	245,000
I = G/(H x 12)	Monthly Demand Cost per kW	\$5.05
J	2019 Forecast Energy Sales (kWh)	1,733,000,000
K = G/J	Energy Unit Cost (cents per kWh)	0.857

Notes:

1. Excludes Incremental Operating and Maintenance Costs.
2. Hydro does not have a detailed updated capital cost estimate. An updated cost estimate would be anticipated to be higher than the 2014 capital cost estimate.