

1 Q. Further to IIC-NLH-28, please provide marginal capacity cost estimates in the format provided in
 2 Figure 7 of CA Consulting Marginal Cost Study Update – 2018 [November 15, 2018], which was
 3 Appendix A to the Hydro’s November 15, 2018 application on Marginal Cost Study and Rate
 4 Structure Review.

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7 A. Please refer to Table 1 for the marginal generation capacity cost in comparative format to Figure
 8 7 of the 2018 Marginal Cost Study Update.

**Table 1: 2021 Marginal Cost of Generating Capacity
 Newfoundland and Labrador Hydro**

GENERATION			
Investment Cost (\$/kW)	Parameters	Investment Costs per kW	Charges on Capital (\$/kW- year)
Direct Facility Investment		2,531.79	98.40
General/Common	8.53%	215.86	13.63
Materials and Supplies	1.19%	30.10	1.17
Fuel Inventory		24.04	0.93
Working Capital (%/FOM)	2.52%	1.41	0.05
Charge Rates (%)	Parameters	Cost Elements (\$/kW-year)	
Carrying Charges, Direct	3.89%	100.56	
Carrying Charges, Gen/Com	6.31%	13.63	
Insurance Costs	0.11%	3.11	
FOM Rate (\$/kW-year)	\$35.64	35.64	
A&G Cost Rate (% OM)	56.35%	20.08	
All-In Cost/kW-year:			173.02
Costs of Reserves (% of Supply)		16.00%	27.68
Cost Effect of E(Forced Outage)		2.09%	4.28
Adjusted All-Inj total Cost/kW-year:			204.99

- 1 Please refer to Table 2 for the marginal transmission capacity cost in comparative format to
 2 Figure 7 of the 2018 Marginal Cost Study Update.

**Table 2: 2021 Marginal Cost of Transmission Capacity
 Newfoundland and Labrador Hydro**

ISLAND TRANSMISSION

<u>Investment Cost (\$/kW)</u>	<u>Parameters</u>	<u>Investment Costs per kW</u>	<u>Charges on Capital (\$/kW-year)</u>
Direct Facility Investment		520.20	22.74
General/Common	3.15%	16.41	1.04
Materials and Supplies	1.06%	5.53	0.24
Working Capital (% OM)	7.27%	0.72	0.05

<u>Charge Rates (%)</u>	<u>Parameters</u>	<u>Cost Elements (\$/kW-year)</u>
Carrying Charges, Direct	4.37%	23.03
Carrying Charges, Gen/Com	6.31%	1.04
Insurance Costs	0.03%	0.18
FOM Rate (\$/kW-year)	1.03%	5.34
A&G Cost Rate (% OM)	85.33%	4.56
All-In Costs (\$/kW-year)		34.14

1 Please refer to Table 3 for the marginal distribution capacity cost in comparative format to
 2 Figure 7 of the 2018 Marginal Cost Study Update.

Table 3: Marginal Distribution Capacity Cost¹
Newfoundland Power Inc.

		<u>2017 Dollars per kW</u>
(1)	Marginal Investment per kW	\$199.68
(2)	With General Plant Loading (1) x 1.0796	215.57
(3)	Annual Economic Carrying Charge Related to Capital Investment	6.48%
(4)	A&G Loading (plant related)	0.78%
(5)	Total Annual Carrying Charge (3) + (4)	7.26%
(6)	Annualized Costs (2) x (5)	15.65
(7)	O&M Expenses	3.00
(8)	With A&G Loading (7) x 1.6981 (Non-plant)	5.09
(9)	Subtotal (6) + (8)	20.74
Working Capital		
(10)	Material and Supplies (2) x 0.39%	0.84
(11)	Prepayments (2) x 0.12%	0.26
(12)	Cash Working Capital Allowance (8) x 6.21%	0.32
(13)	Total Working Capital (10) + (11) + (12)	1.42
(14)	Revenue Requirement for Working Capital (13) x 9.50%	0.13
(15)	Total Distribution Substation Costs (9) + (14)	20.87

3 Please refer to Newfoundland and Labrador Hydro’s response to IIC-NLH-028 for further detail
 4 regarding the marginal energy and capacity costs as they relate to the Electrification, Demand
 5 and Conservation Management Plan.

¹ Table 3 was provided in Newfoundland Power’s response to PUB-NP-079, att. B, p. 3 of 3 of the Rate Mitigation Options and Impacts Reference.