

1 Q. **Reference Application**

2 Please provide a table for all of Hydro's Island hydro generation facilities and Exploits showing
3 age, capacity, annual energy production, storage capacity, capital spending over the past 10
4 years and levelized cost. Is Hydro responsible for capital investment and operating and
5 maintenance costs at Exploits?

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8 A. Table 1 and Table 2 provide the age, capacity, storage capacity, and the capital spending over
9 the past ten years for Newfoundland and Labrador Hydro's ("Hydro") Island hydro generation
10 facilities and Exploits facilities, as requested. Table 3 and Table 4 provide the Annual Energy
11 Production (GWh) by facility for the period from 2009 to 2019.

Table 1: Island Hydro Generation Parameters by Facility – Hydro (2010–2019)

Facility	Unit	Age	Capacity (MVA ¹)	Annual Energy Production (GWh)*	Storage Capacity (MCM ²)	Capital 2010-2019 (\$000)
Bay d'Espoir Powerhouse 1	1	53	85	10 years of data provided in Table 2	839	111,155.10
	2	53	85			
	3	53	85			
	4	52	85			
	5	50	85			
	6	50	85			
Bay d'Espoir Powerhouse 2	7	43	172			
Upper Salmon	1	37	88.4		47	1,531.40
Cat Arm	1	35	75.5		448	7,758.30
	2	35	75.5			
Hinds Lake	1	40	83.3		273	4,813.90
Granite Canal	1	17	46.7		82	815.60
Paradise River	1	31	8.9		Run-of-River ³	468.90

¹ Megavolt ampere (“MVA”).

² Million cubic metres (“MCM”).

³ A Run-of-River facility considers volumetric flow of water through the generating station rather than storage capacity. There is little or no water storage provided and the generating facility is subject to seasonal river flows.

Table 2: Island Hydro Generation Parameters by Facility – Exploits (2010–2019)

Facility	Unit	Age	Capacity (MVA)	Annual Energy Production (GWh)*	Storage Capacity (MCM)	Capital 2010-2019 (\$000)
Grand Falls	4	82	30.7	10 years of data provided in Table 2	Run-of-River	81,238.39
	5	70	5			
	6	70	6			
	8	70	6			
	9	17	33.3			
Bishops Falls	1	18	3			
	2	18	3			
	3	18	3			
	4	18	3			
	5	18	3			
	6	18	3			
	7	70	2.25			
Star Lake	1	22	18.4	90	3,995.75	

Table 3: Island Hydro Generation Annual Energy Production (GWh) by Facility - Hydro (2010–2019)

Facility	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Bay d'Espoir	2445.8	2462.1	2811.4	2627.7	2876.4	2723.8	2855.0	2514.4	2514.4	2869.9	2521.4
Hinds Lake	284.8	342.0	324.1	327.4	386.7	362.2	369.0	335.6	335.6	331.7	324.8
Upper Salmon	509.0	497.6	448.3	551.1	436.5	519.9	592.5	572.9	572.9	562.6	529.6
Cat Arm	699.3	743.2	659.7	821.5	693.3	775.5	739.9	833.0	833.0	895.7	871.9
Paradise River	34.2	34.0	36.1	34.5	36.5	37.3	24.9	28.4	28.4	38.9	31.2
Granite Canal	234.7	206.2	242.9	241.9	268.8	250.4	252.1	232.1	232.1	246.7	256.7
Snook's Arm-Venam's Bight	5.1	1.8	4.2	3.5	3.5	2.2	3.9	3.2	3.2	2.5	1.7
Roddickton	0.4	0.1	0.0	0.0	0.0	0.0	0.4	0.4	0.4	0.5	0.4

Table 4: Island Hydro Generation Annual Energy Production (GWh) by Facility – Exploits (2010–2019)

Facility	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Star Lake	148.5	135.8	129.8	144.4	140.6	122.4	135.3	135.7	138.0	140.4	125.7
Grand Falls	400.8	433.3	435.6	469.7	475.7	450.5	437.7	391.9	403.5	449.3	465.7
Bishops Falls	180.0	112.4	62.7	104.8	114.2	124.0	121.8	103.4	115.7	120.4	108.2

1 Please refer to Hydro's response CA-NLH-029 of this proceeding for the annual average cost of
2 Hydro's hydraulic generation facilities, excluding the Exploits Assets. With respect to the Exploits
3 Assets, Hydro's cost of energy is 4 cents per kWh.⁴ Hydro is responsible for managing the day-to-
4 day operations and capital investment associated with the Exploits Assets on behalf of Nalcor
5 Energy.⁵

⁴ As per the Exploits power purchase agreement directed by the Government of Newfoundland and Labrador.

⁵ Nalcor Energy holds the operating license for these assets which are owned by the Government of Newfoundland and Labrador.