

# **Addendum to Hatch's 2013 "Feasibility Study of the Hydraulic Potential of Coastal Labrador"** **Department of Natural Resources** **June 2017**

After the Department of Natural Resources consulted with Nalcor, it was felt that at page 52 of the Annex (page 371 of 412 in the full report), under Section 7 Economic Analysis the below table should be referenced.

**Table 7-1B: Summary of Results - Storage Hydro Projects**

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## **Development Costs and Levelized Cost of Energy for Generation Scenarios**

Site Number	Communities Served	Generation Scenario	Type of Hydro Development	F/cast Community Peak Load (2037)	Installed Capacity	Plant Firm Capacity @ 97%	Annual Firm Energy supplied at 97%	Forecast Average Annual Energy Demand f/	Capacity Factor	Cost d/	Cost/kW	O & M Cost	Cost + IDC	Levelized Ann. Cost (50 yr, 7%)	2012 Cost of Forecast Demand Energy c/	2012 Cost of supplied Energy c/
				(kW)	(kW)	(kW)	(MWh)	(MWh)	(%)	(\$ Millions)	(\$/kW)	(\$ Millions/yr)	(\$ Millions)	(\$ Millions)	(\$/kWh)	(\$/kWh)
5B-1 a/	Charlottetown	Option # 1	Storage	1848	2,100	1,850	16,206	6,164	33.5	43.7	20,800	0.33	48.10	3.82	0.619	0.235
8D	PHS/MSH/STL	Option # 1	Storage	2791	3,500	2,800	24,528	12,438	40.6	148.4	42,400	0.33	162.31	12.09	0.972	0.493
ALX-B	PHS/MSH/STL	Option # 1	Storage	2791	3,500	2,800	24,528	12,438	40.6	96.0	27,400	0.33	107.81	8.14	0.655	0.332
5B-1 + 8D	CHT & PHS/MSH/STL	Option # 1	Storage	4637	5,600	4,650	40,734	18,602	37.9	192.1 e/	34,300	0.46	201.67	15.07	0.810	0.370
5B-1 + ALX-B	CHT & PHS/MSH/STL	Option # 1	Storage	4637	5,600	4,650	40,734	18,602	37.9	139.7 e/	24,900	0.46	146.92	11.11	0.597	0.273
8C-2	PHS/MSH/STL	Option # 2	RoR	na	3,000	Variable	na	na	na	43.4	14,500	na	na	na	na	na
5B-2 b/	CHT & Part PHS/MSH/STL	Option # 2	Storage	1848	2,500	2,300	20,148	10,250	46.8	45.7	18,300	0.33	50.19	3.97	0.387	0.197
5B-2 + 8C-2	CHT & PHS/MSH/STL	Option # 2	Storage+RoR	4637	5,500	3,095	27,112	18,602	38.6	89.0 e/	16,200	0.46	98.49	7.60	0.408	0.280

### **Notes:**

- a/ Site 5B-1 delivers 1850 kW of firm power to Charlottetown  
b/ Site 5B-2 would deliver 2300 kW of firm power with the excess energy over the demand at CHT exported to PHS/MSH/STL  
c/ Economic analysis period is 50 years; discount rate = 7%  
d/ In 2012 Cdn Dollars; Owner's cost, financing/IDC, taxes and southern Labrador interconnection costs are excluded  
e/ Estimated direct cost for Interconnection between CHT/PHS/MSH/STL is \$14 million  
f/ Forecast Energy Demand based on 50-year continued Diesel Forecast supplied by Nalcor, 2013

The excerpt below is in reference to Section 4.1, Storage Site 5B, which is found on page 15 of the Annex (page 334 of 412 in the full report). Both the table and this excerpt were subsequently provided by Hatch in follow up discussions on the Study and will help inform a full understanding of the Study.

“Site 5B, Gilbert River, is upstream (west) of Gilbert Bay, and the powerhouse tailrace as proposed would discharge into Gilbert Bay. This bay has a resident population of genetically distinct Atlantic cod referred to as the Golden Cod. In 2005, the Gilbert Bay Marine Protected Area (MPA) was established to protect the Golden Cod and its habitat. The MPA designation does not preclude possible hydroelectric development on lands near the Gilbert River. However, if this site were selected for further consideration, more study would be warranted to define potential effects the development could have on the marine ecosystem downstream. In addition, environmental assessment planning would need to take into account the Golden Cod and the MPA as part of its routine stakeholder identification and issues scoping analysis. It is likely that this exercise would identify that the existence of the MPA and the Golden Cod would require additional stakeholder consultations and detailed assessment of the potential interactions between the project and the downstream Golden Cod population and habitat. The location of the downstream components (powerhouse and tailrace) of the proposed Site 5B development were selected to maximize head and corresponding energy production, and with a footprint outside the boundaries of the MPA. During environmental studies and final engineering, the final selected coordinates of the powerhouse and tailrace would be fixed to fall outside of the MPA.”