Q. In Order No. P.U. 21(2023), the Board approved $2,059,800 for the construction and installation of seven ultra-fast DCFC electric vehicle chargers. In this Application, Hydro is proposing a capital expenditure of approximately $4,263,000 for the construction and installation of seven DCFCs which includes five 400 kW ultra-fast chargers and two 120 kW chargers, as well as two additional chargers for backup.

a. Please provide a detailed cost breakdown for the purchase and installation of the 400 kW ultra- fast charger(s), 120 kW charges, the solar generation and battery backup and backup chargers proposed for Southern Labrador.

b. Please provide a cost breakdown for the purchase and installation of the chargers by site including the solar generation and battery backup proposed for Southern Labrador.

c. Please explain the increase in the proposed capital expenditures in this Application as compared to the cost of chargers approved in Order No. P.U. 21(2023).

A. a. Please refer to Table 1 for a detailed cost breakdown for the purchase and installation of all sites associated the proposed Application.

Table 1: Total Project Cost Breakdown ($)

Particulars	Island Ultra-Fast Chargers	Labrador South Chargers	Total
400kW Charger	210,000	0	
Electrical Cabinet	105,000	0	
600V-480V Transformer	45,000	0	
600V-480V Transformer (Spare)	9,000[1]	0	
Commissioning	4,000	0	
120kW Charger, Solar, Battery	0	430,000[2]	
Level 2 Backup Charger	0	20,000	
Cellular Signal Booster	0	5,000	
Site Lighting + Pole	10,000	20,000	
Electric Vehicle Charger Signage	5,000	5,000	
Installation (Civil & Electrical)	137,500	15,000	
CIAC	5,000	5,000	
Project Management	11,243	11,243	
Internal Labour	14,900	14,900	
Escalation	6,371	6,023	
Contingency	55,664	52,614	
Total [A]	**618,678**	**584,780**	
Number of Sites [B]	5	2	
Total Project Cost [A*B]	**3,093,390**	**1,169,560**	**4,262,950**

b. Please refer to part (a) of this response.

c. The increase in the proposed capital expenditures in this Application as compared to the cost of chargers approved in Board of Commissioners of Public Utilities Order No. P.U. 21(2023) is due to a change in equipment specifications, an increase in number of chargers, and an increased number of charging sites.

The Ultra-Fast Phase 1 project originally proposed a total seven 175 kW Direct Current Fast Chargers ("DCFC") at five sites on the island portion of the province, with two sites operating in a paired configuration of up to 350 kW. Hydro was able to procure 600 V input DCFCs for this phase, which are specifically made to accept standard utility voltage in Canada. The supplier of these 600 V input chargers has since informed Newfoundland and Labrador Hydro ("Hydro") this product line is being discontinued.

[1] Total cost of $45,000 split evenly among the five Island sites.
[2] Unit cost based on all-inclusive quote.

Ultra-Fast Phase 2 proposes ten 200 kW DCFCs at five sites on the island, all operating in a paired configuration of up to 400 kW. These chargers are larger capacity when compared to Ultra-Fast Phase 1 and are therefore more expensive. Further, these chargers are 480 V input (versus 600V input from Ultra-Fast Phase 1) and therefore a separate 600 V and 480 V transformer is required (as well as one spare) for each Island site, as 480 V is not a standard utility voltage in Canada.

Finally, the Southern Labrador sites include both solar generation for energy, and a battery storage system for capacity. This additional equipment is required to limit the impact on Hydro's isolated systems and the rural deficit, and represent costs not originally contemplated in Ultra-Fast Phase 1 which is located entirely on the Island Interconnected System. As noted in the Application, the Government of Newfoundland and Labrador is providing $3.8 million in funding for this project.