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April 14, 2022



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12:55 pm
MLA*

Island Regulatory & Appeals Commission
PO Box 577
Charlottetown PE C1A 7L1

Dear Commissioners:

**2021 Capital Budget Variance Report – Docket UE20734
Response to Interrogatories from Commission Staff**

Please find attached the Company's response to Interrogatories from Commission Staff with respect to the 2021 Capital Budget Variance Report filed on February 28, 2022. An electronic copy will follow shortly.

Yours truly,

MARITIME ELECTRIC

Gloria Crockett, CPA, CA
Manager, Regulatory & Financial Planning

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Enclosure

The Island Regulatory and Appeals Commission (the “Commission”), in assessing the reasonableness of the 2021 Capital Budget Variance Report submitted by Maritime Electric Company, Limited (“Maritime Electric” or “MECL”), requests responses to the following interrogatories:

- IR-1 Section 5.4 - Line Extensions was over budget due primarily to three (3) large projects to convert existing single phase lines to three phase lines. The report also indicates MECL was not aware there was a requirement to complete these projects for customers at the time the 2021 capital budget application was prepared.
- a. Please explain why this was not known at the time of the capital budget and whether it is a customer driven expense?
 - b. If so, were there customer contributions received to offset the costs?

Response:

- a. The vast majority of customer-driven line extension projects typically involve less than one kilometer (“km”) of line construction. For this reason, the annual provisional budget allocation for customer-driven line extensions, since it was initiated in 2019, has been based upon typical projects, as the requirement is somewhat consistent from year to year and reflective of the rate of new industrial, commercial and residential development. However, from time to time, and with greater frequency, as the demand for three phase power grows in rural areas, larger line extension projects are initiated by customers, as occurred on three occasions in 2021.

Maritime Electric calculates project cost estimates for customers requesting various types of line extension work in accordance with the Rates and General Rules and Regulations. These estimates are typically created in the customers’ feasibility assessment stage and, as such, some projects, especially the larger more costly ones, do not proceed. For the projects that do go ahead, the Company will not start work until the customer contribution has been received, and at that point the Company is obligated to provide the requested service within a reasonable timeframe. Given the fact that the Company’s annual capital budget application is prepared close to a year in advance of when the proposed work can begin, it is not reasonable to expect customers to plan and commit to projects that far in the future.

The three (3) large projects referenced in Section 5.4 – Line Extensions are described below.

Wharf Road Single to Three Phase Conversion (3.7 km)

Maritime Electric provided the customer with an estimate for the project in 2020 and the customer contribution was paid in February 2021. The project involved adding the additional phases and replacing the existing #2 conductor with 2/0 Quail, as the existing conductor was undersized for the increase in load. This required several poles to be replaced and some span lengths to be changed.

The conversion to three phase provides the ability to stabilize the voltage, shift load and balance phases on this section of line, adding capacity for future customer connections. It also extends the open point beyond Rice Point and provides additional redundancy in scenarios when circuits must be backed up.

The project costs to extend three phase service were paid by the customer and the costs that were necessary to accommodate increased load and complete other modifications that provide system benefits were incurred by Maritime Electric, as indicated in the response to IR-2.

Kinkora Road - Route 225 - Single Phase Rebuild

Maritime Electric was in the process of surveying the Kinkora Road - Rte 225 - Single Phase Rebuild project in 2021,¹ when the Company was approached by a customer inquiring about the possibility of providing three phase power to supply eight irrigation pumps. The pumps are located at three farm properties on Kinkora Road, Kelly Road and Maple Plains Road and the customer agreed to pay a contribution to offset the additional cost of extending the line rebuild and constructing it as three phase.

The Company determined that the 2020 peak current of this line was 77 amps and with the estimated additional load from the irrigation pumps installed as single phase, it would increase to 106 amps, which exceeds the maximum fuse size of 100 amps for a single phase line.

Rebuilding the line as three phase benefits both the customer and the entire power system. The benefit to the customer is that purchase and operating cost of three phase equipment is considerably lower compared to single phase equipment. The benefit to the power system is reduced line amperage, improved fusing and the ability to balance the load on several single phase lines fed from this main line by connecting them to different phases. Maritime Electric was also contacted by Bell Canada ("Bell") to construct the line to a joint use standard. This resulted in Bell contributing to the project in accordance with an existing Joint Use Agreement ("JUA").

The project costs to extend three phase service were paid by the customer, the costs that were necessary to accommodate increased load and complete other modifications that provide system benefits were incurred by Maritime Electric, and the costs to convert the line to joint use were paid by Bell, as indicated in the response to IR-2.

St. Mary's Road West Single to Three Phase Conversion Project

Maritime Electric provided the customer with an estimate for the project in 2020 and the customer contribution was paid in February 2021. The project involved upgrading the distribution line along the St. Mary's Road West from single to three phase for a distance of 4.4 km. As the customer was planning a significant increase in load, Maritime Electric would have been responsible for upgrading the conductor on the existing single phase line if the three phase conversion was not proposed. The existing conductor was approaching end of life and under sized for the increase in customer load and had to be replaced with 2/0 Quail regardless of whether the line was single or three phase. The three phase

¹ The Kinkora Road – Rte 225 – Single Phase Rebuild was approved by the Commission as a 2021 Capital Budget project.

conversion also involved replacing approximately 70 (non-standard) 35 foot poles that were of insufficient height and approaching end of life.

Upgrading the line to the current three phase standard provided the system benefit of phase load balancing and increased capacity for connecting additional load, including additional three phase customers.

The project costs to extend three phase service were paid by the customer and the costs that were necessary to accommodate increased load and complete other modifications that provide system benefits were incurred by Maritime Electric, as indicated in the response to IR-2.

- b. A customer contribution was received to offset a portion of the cost of all three projects discussed in the response to IR-1a, as detailed in the response to IR-2.

IR-2 Please provide a breakdown of the customer contributions received in relation to their corresponding projects.

Response:

The Wharf Road single to three phase conversion was a customer-driven line extension project that involved a load increase that Maritime Electric was responsible to accommodate. The net cost to the Company was \$104,349 with the conversion to three phase partially offset by a customer contribution as shown in Table 1.

Table 1 Wharf Road Single to Three Phase Conversion	
Description	Amount
Project Cost	\$ 253,570
Customer Contribution	(149,221)
NET TOTAL	<u>\$ 104,349</u>

The Kinkora Road single phase rebuild was approved by the Commission as a 2021 capital project with a budget of \$475,000. The incremental cost to the Company to accommodate the three phase and joint use conversion components after contributions was \$(28,757) as shown in Table 2.

Table 2 Kinkora Road - Route 225 - Single Phase Rebuild	
Description	Amount
Budget	\$ 475,000
Project Cost	628,417
Customer Contribution	(52,174)
Bell Canada Contribution	(130,000)
TOTAL	<u>\$ 446,243</u>
Variance	<u>\$ (28,757)</u>

The St. Mary's Road West single to three phase conversion was a customer-driven line extension project that involved a load increase that Maritime Electric was responsible to accommodate. The net cost to the Company was \$399,583 with the conversion to three phase partially offset by a customer contribution as shown in Table 3.

Table 3 St. Mary's Road West Single to Three Phase Conversion	
Description	Amount
Project Cost	\$ 566,583
Customer Contribution	(167,000)
NET TOTAL	<u>\$ 399,583</u>

- IR-3 Section 5.7 - Distribution Equipment - MECL cancelled purchasing equipment for cleaning salt contamination from insulators at substations. This was deemed necessary during the 2021 capital budget application and was approved by the Commission.
- a. Why was it determined to no longer be necessary?
 - b. Was it replaced with other types of equipment more appropriate with additional savings?

Response:

- a. Subsequent to filing the 2021 Capital Budget Application, Maritime Electric learned that the work methods required for operating this equipment are very specialized and, as such, the training and skill needed to safely clean energized substation insulators would be difficult to maintain with staff that are only using the equipment periodically. The Company then considered acquiring the equipment and hiring qualified contractors to do the work when required, but it was found that contractors would not use equipment they do not own and maintain. For these reasons, Maritime Electric concluded that it would not be prudent to proceed with this purchase given the safety concerns that had been identified.
- b. No. Maritime Electric will either use a qualified contractor to clean substation insulators while energized, or continue with the current practice of de-energizing sections of the substation to make it safe to clean salt-contaminated insulators with water.

IR-4 Please provide a breakdown and calculation of the Capitalized General Expense.

Response:

A breakdown of the General Expense Capitalized (“GEC”) by major category is shown in Table 1.

Table 1 Breakdown of General Expense Capitalized by Major Category					
General Expense Capitalized	Labour*		Transportation	Other	Total
	Salary	Union			
Stores, Finance and Purchasing, and Corporate Planning Departments	\$319,270	\$298,199	\$ 61,471	\$ 2,103	\$ 681,043

* Includes the cost of salaries, wages and related benefits.

The calculation of GEC represents the allocation of administrative costs, not specific to any one capital project, but rather as part of the overall development, implementation and management of the Company’s capital budget program. A breakdown of the departments, number of positions and percentage of cost allocations is shown in Table 2.

Table 2 Breakdown of General Expense Capitalized by Department			
Department	Position	Number of Positions	Per Cent Allocation
Stores - Supervision	Stores Supervisor	One	60
Stores - Labour	Stores Worker	Four	90
Finance and Purchasing	Purchasing Supervisor	One	90
Corporate Planning	Capital Planning and Reporting - Manager	One	80