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MARITIME ELECTRIC
A FORTIS COMPANY

April 12, 2023

Ms. Cheryl Mosher
Island Regulatory & Appeals Commission
PO Box 577
Charlottetown PE C1A 7L1

Dear Ms. Mosher:

2023 to 2025 General Rate Application - Docket UE20946
Response to Interrogatories from Commission Staff

Please find attached the Company's response to Interrogatories ("IRs") from Commission Staff received on April 5, 2023 with respect to the General Rate Application filed on June 20, 2022.

An electronic copy of this submission will be forwarded shortly.

Yours truly,

MARITIME ELECTRIC

Gloria Crockett

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Manager, Regulatory & Financial Planning

GCC33
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I N T E R R O G A T O R I E S

Responses to Interrogatories of Commission Staff

2022 Capital Budget Variance Report (UE20738)

Submitted November 17, 2023

The Island Regulatory and Appeals Commission (the "Commission"), in assessing the reasonableness of the 2022 Capital Budget Variance Report submitted by Maritime Electric Company, Limited ("Maritime Electric" or "MECL"), requests responses to the following interrogatories:

IR-1 Please provide a breakdown of the customer contributions received in relation to their corresponding projects.

Response:

Table 1 shows a breakdown of the customer contributions received in 2022.

TABLE 1		
Capital Budget Section		**Contributions**
5.1	Replacements Due to Storms, Collisions, Fire and Road Alterations	$ 22,588
5.2	Distribution Transformers	22,247
5.3	Services and Street Lighting	253,899
5.4	Line Extensions	1,012,035
5.5	Rebuilds	34,683
6.1	Substation Projects	1,149
TOTAL		**$ 1,346,601**

IR-2 In the draft Capital Expenditure Justification Criteria date November 2019 – the cost overruns are to be communicated with the Commission when overruns are more than $100,000 and 10% of the approved project budget. A number of projects met this criteria during the 2022 year, but were not communicated with Commission in real time.

a. Why were the overruns not communicated with the Commission prior to the filing to the 2022 capital variance report?

b. Please provide justification for why the Commission should approve overruns on projects which met the more than $100,000 and 10% criteria mentioned in the draft Capital Expenditure Justification Criteria.

Response:

a. With the exception of two cost overruns that occurred in the fourth quarter,[1] all 2022 cost overruns were communicated to the Commission, in accordance with the draft Capital Expenditure Justification Criteria ("CEJC"), through quarterly capital expenditure forecast reports. Each of these forecast reports included an explanation of any over-budget variance that was either expected, or already incurred, based on the most current information available.

Capital projects in 2022 that had a cost overrun of more than $100,000 and 10% of the approved project budget, including requested carryover amounts if applicable, were:

i. Section 5.1(a) - Replacements Due to Storms, Fires and Collisions: $351,253;
ii. Section 5.2 - Distribution Transformers: $492,495;
iii. Section 5.3(a) - Overhead and Underground Services: $1,011,876;
iv. Section 5.3(b) - Street and Area Lighting: $181,614;
v. Section 5.4(a) - Customer Driven Line Extensions: $1,340,364;
vi. Section 5.4(b) - Reliability Driven Line Extensions: $311,471;
vii. Section 5.5(d-ii) - Eastern Cedar Pole Replacement Program: $234,026;
viii. Section 6.1(a) - East Royalty Substation: $613,314;
ix. Section 6.1(b) - Crossroads Substation Rebuild: $729,505;
x. Section 6.1(c) - West Royalty X5 Autotransformer Upgrade: $138,707;
xi. Section 6.1(k) - Fibre Communication – Alberton to Tignish: $101,079; and
xii. Capital Projects Carried Over from Prior Years.

The Capital Expenditure Forecast for the Period Ended March 31, 2022 ("Q1 Report"), filed with the Commission on May 10, 2022 and provided herein as IR-2 – Attachment 1, identified and explained cost forecast and/or incurred overruns for items: i, iii, v and xii. The information concerning these items in the Q1 Report is highlighted in IR-2 – Attachment 1.

The Capital Expenditure Forecast for the Period Ended June 30, 2022 ("Q2 Report"), filed

[1] Includes cost overruns of $234,026 under Section 5.5(d) – Eastern Cedar Pole Replacement Program and $101,079 under Section 6.1(k) – Fibre Modifications Due to Road Alterations, both of which were identified and explained in the 2022 Capital Budget Variance Report. Regarding the Eastern Cedar Pole Replacement Program, additional information on the cost overrun is provided in the response to IR-5.

with the Commission on August 8, 2022 and provided herein as IR-2 – Attachment 2, identified and explained cost forecast and/or incurred overruns for items: i, ii, iii, iv, v, vi, viii, ix, x and xii. The information concerning these items in the Q2 Report is highlighted in IR-2 – Attachment 2.

The Capital Expenditure Forecast for the Period Ended September 30, 2022 ("Q3 Report"), filed with the Commission on December 1, 2022 and provided herein as IR-2 – Attachment 3, also identified and explained cost forecast and/or incurred overruns for items: i, ii, iii, iv, v, vi, viii, ix, x and xii. The information concerning these items in the Q3 Report is highlighted in IR-2 – Attachment 3.

The cost overruns for items vii and xi were not expected or incurred prior to the fourth quarter ("Q4") of 2022 and, as such, were not included in the Q3 Report. This was an exceptional circumstance that accelerated the replacement of a small number of end-of-life poles and the pre-purchase of fibre-optic cable for work planned in 2023. In both cases, the expenditures were reasonably expected to occur in the near future, but were incurred earlier than planned for operational and logistical requirements.

b. Under the *Electric Power Act*, Maritime Electric has an obligation to provide safe and reliable service to customers. In return for this provision of service, the regulatory compact requires that the regulator offer the utility cost recovery plus an allowed rate of return on infrastructure investments that are *prudently incurred*. The most common standard for prudency review is that assets must be 'used and useful'.

While project costs in excess of an approved budget are not guaranteed to be approved by the Commission for recovery from ratepayers, if such costs are reasonable and prudently incurred, full recovery from ratepayers is reasonable. All capital project over-budget variances in 2022 were reasonable and prudently incurred for the reasons provided in the quarterly and annual variance reports filed with the Commission.

IR-3 Section 5.3 – Services and Street Lighting was over budget due to service request associated with new construction continuing to remain high as well as upgrade service requests due to provincial government incentive programs.

a. Please provide a breakdown of services provided as compared to budget.

b. Please provide an average cost per service budgeted as compared to actual.

c. Were there customer contributions received to offset the costs.

Response:

a. Maritime Electric completed 1,226 new service requests in 2022, with 505 new services being overhead and 721 being underground. For comparison purposes, the Company completed 1,346 new service requests in 2021 and 1,176 in 2020.

When the 2022 Capital Budget Application ("Application") was prepared, the budget for 5.3(a) – Overhead and Underground Services was based on new services activity in 2020 and 2021, with the latter being year-to-date information.

The number of new service requests in 2020 and 2021 was reasonably close to the budgeted amounts. Relative to 2020, new services in 2022 were up by approximately 4 per cent. While the number of new service requests was down by approximately 9 per cent in 2022 relative to 2021, the difference can be reasonably attributed to no new service work occurring during the post-tropical storm Fiona ("Fiona") restoration period, and reduced activity in the weeks immediately following Fiona restoration.

b. When the 2022 Capital Budget Application was prepared, the $4,738,000 amount budgeted for 5.3(a) – Overhead and Underground Services was based on actual 2020 new service expenditures of $4,439,274, adjusted for inflation at approximately 3 per cent for 2 years.

Maritime Electric's average new service cost in 2022 was $4,690.[2] For comparison purposes, the Company's average new service cost was $4,169 in 2021,[3] and $3,775 in 2020.[4]

The increase in average new service cost from 2020 to 2021 was approximately 10 per cent, and from 2021 to 2022 it was approximately 12 per cent. Material and transportation costs being impacted by inflation at levels above the 3 per cent budgeted were primarily responsible for the increase in average new service cost.

c. Incremental customer contributions of $253,899 were received to offset Section 5.3 – Services and Street Lighting costs in 2022.

[2] $4,690 (new service cost) = $5,749,876 (2022 actual) / 1,226 (new service requests).
[3] $4,169 (new service cost) = $5,612,095 (2021 actual) / 1,346 (new service requests).
[4] $3,775 (new service cost) = $4,439,274 (2020 actual) / 1,176 (new service requests).

IR-4 Section 5.4 – Line Extensions was over budget due primarily to two large projects which MECL was not aware there was a requirement to complete these projects for customers at the time the 2022 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 two occasions in 2022.

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 two large customer-driven projects referenced in Section 5.4 – Line Extensions are described below.

<u>Mount Stewart Three Phase Conversion ($819,967)</u>
This project involved a 4.5 km single to three phase line conversion in the Mount Stewart area to service a hotel and restaurant operation. The customer requesting the conversion was provided a cost estimate by Maritime Electric in early 2022 and a contribution in aid of construction for the project was received in April. The project involved upgrading the line with new conductor and replacing poles where necessary.

The conversion to three phase stabilizes the voltage and provides the ability to shift load and balance phases on this section of line for the approximately 300 customers it serves. A development plan for this same area indicates the addition of 33 new customer connections in the near future. The three phase conversion and system upgrades completed as a result of this project provide sufficient capacity for adding future customer connections.

The $203,992 cost to extend three phase service was paid by the customer and the $615,975 cost to accommodate increased load and complete the other modifications that provide general system benefits were paid by Maritime Electric.

Albany Three Phase Conversion ($447,422)
This project involved a 1.9 km single to three phase line conversion on Victoria Road in Albany to serve a potato warehouse. The customer requesting the conversion was provided a cost estimate by Maritime Electric in early 2022 and a contribution in aid of construction for the project was received in late March. The project involved upgrading the line with new conductor and replacing poles where necessary.

The conversion to three phase stabilizes the voltage and provides the ability to shift load and balance phases on this section of line for the approximately 70 customers it serves. This project provides sufficient capacity for adding future customer connections and accommodating additional agriculture-related load growth in this area.

The $85,178 cost to extend three phase service was paid by the customer and the $362,244 cost to accommodate increased load and complete the other modifications that provide general system benefits were paid by Maritime Electric.

b. As indicated in the response to IR-4(a) herein, Maritime Electric received a customer contributions of $203,992 for the Mount Stewart project and $85,178 for the Albany project.

IR-5 Section 5.5(d) – Eastern Cedar Pole Replacement was over budget due to the availability of contractor resources providing an opportunity to complete extra pole replacements during the year.

a. MECL is expecting the 2022 Capital budget to approximately be $4 million over budget, including carryovers. Please justify spending over and above the approved budget amount in the 2022 year without first obtaining Commission approval.

b. The over budget amount is greater than $100,000 and 10% and therefore requires MECL to communicate to Commission staff regarding the cost over runs of the project. Please explain why this was not done.

Response:

a. Following Hurricane Fiona ("Fiona") storm restoration, post-storm inspections of the electrical system identified many eastern cedar poles that were compromised and at risk of failure during the winter storm season. While replacing these poles required extra work and resulted in an over-budget variance for 2022, it was reasonable and prudent to do so when the resources were available, to address system safety and reliability concerns.

More generally, regarding the total 2022 Capital Budget over-budget variance of more than $4 million including carryovers, a breakdown of budget items and expenditures as either provisional, project or program, is provided herein, as IR-5(a) – Attachment 1.[5] From this breakdown, the over-budget variances for each type of expenditure, in dollars and per cent, is shown in Table 2.

TABLE 2
Breakdown of 202 Capital Budget Items by Type

Type	Budget	Actual	Variance ($)	Variance (%)
Provisional	$ 15,605,000	$ 19,341,307	$ 3,736,307	24%
Project	16,484,000	17,373,834	889,834	5
Program	10,329,000	10,435,958	106,958	1
TOTAL	**$ 42,418,000**	**$ 47,151,099**	**$ 4,733,099**	**11%**

From Table 2, the primary contributor to the 2022 Capital Budget over-budget variance is provisional items, followed by projects and programs.

The collective over-budget variance for budget items identified as provisional was 24 per cent. As provisional items tend to be customer-driven, the Company has limited ability to control these expenditures beyond what can be achieved through the prudent and efficient management of its operations. To improve the accuracy of budgeting provisional items in the future, provisional amounts in the 2024 Capital Budget Application were estimated based on five-year average expenditure amounts, adjusted for inflation.

[5] The purpose of IR-5(a) – Attachment 1 is to identify and group budget items by type as either provisional, project or program investments. For this reason, the breakdown does not include amounts for capitalized general expense, interest during construction and customer contributions.

The collective over-budget variance for budget items identified as projects and programs were both relatively low, at 5 per cent and 1 per cent, respectively. This is a reflection of the Company's efforts to complete projects and programs within a reasonable range of approved budget allocations.

b. As indicated in the response to IR-2(a) herein, the over-budget variance for Section 5.5(d) – Eastern Cedar Pole Replacement was not expected or incurred prior to Q4. When the requirement to replace Fiona-damaged eastern cedar poles was identified and the resources became available to complete the work in Q4, it was prudent to do so for operational reasons related to safety and reliability. This was an exceptional circumstance that accelerated the replacement of a small number of poles that were already at end of life and planned for replacement under the eastern cedar pole replacement program.

IR-6 Section 6.1(a) – East Royalty Substation was over budget due to primarily increase for civil works due to contract labour and material cost increases and modifications. Please provide additional support and explanations regarding this project.

Response:

East Royalty (Marshfield) substation is expected to be over budget by approximately $613,000 including a carryover of $160,000 to complete the project in 2023. A breakdown of this over-budget variance is shown in Table 3.

TABLE 3
Breakdown of Marshfield Substation Over-Budget Variance

Description	Budget	Actuals (rounded)	Variance[a]
Civil Works, Foundations, Grounding and Fencing	$ 684,000	$ 1,026,000	$ 342,000
Steel/Bus Works	455,000	663,000	208,000
Balance of Project	2,977,000	3,040,000	63,000
TOTAL	**$ 4,116,000**	**$ 4,729,000**	**$ 613,000**

a. In 2021, Marshfield substation capital expenditures were on budget, including a carryover of $886,000. As such, the variances shown occurred in 2022.

The primary component of the over-budget variance is higher-than-expected costs for civil works, foundations, grounding and fencing ("Civil Works"). The $684,000 Civil Works budget was based on 2018 costs for the Mount Albion substation project,[6] as the Marshfield substation budget assumed similar earth work requirements and unit pricing. However, this was not the case due to the location of the Marshfield substation,[7] which required a significantly longer access road and unit pricing for earthwork was considerably higher, relative to the Mount Albion substation. Actual costs for Marshfield substation Civil Works, as provided in IR-6 – Confidential Attachment 1, was $1,026,374.

Specific differences between the Marshfield and Mount Albion's substation projects that contributed to the Civil Works over-budget variance included:

- The access road to the Mount Albion substation is approximately 10 metres long while the access road to the Marshfield substation is approximately 300 metres long. As such, Marshfield substation required significantly more land clearing, select borrow placement, soil compaction, class A gravel, and water control (culverts and check dam).

- Mount Albion earthwork involved removing 1,500 cubic metres ("m^3") of organic material and 5,500 m^3 was needed to backfill the site up to appropriate grade, whereas Marshfield involved 4,730 m^3 and 6,440 m^3, respectively.

6 The civil works costs for the Mount Albion substation project is provided on page 5 of Confidential Appendix S-9 in the 2022 Capital Budget Application.

7 The exact location of the Marshfield substation was not confirmed when the 2021 Capital Budget Application was being developed.

- From 2018 to 2021, the cubic metre cost to supply, place, and compact select borrow climbed from $14.90 to $24.75, including fuel surcharge. The cubic metre cost to remove unwanted material rose from $12.48 to $13.95.[8]

- The final design for the Marshfield substation had two more foundations for breakers and reclosers than the Mount Albion substation.

The structural steel cost component of the over-budget variance, approximately $208,000, was due primarily to the price of steel increasing between 2018, when the Mount Albion substation was constructed, and 2022 when the steel for the Marshfield substation was purchased. The supplier quotation used to estimate the budget for Marshfield substation steel is provided on page 38 of Confidential Appendix S-10 in the 2022 Capital Budget Application, and the quotation used for purchasing the Marshfield substation steel is provided herein, as IR-6 – Confidential Attachment 2.

The balance of the Marshfield substation over-budget variance is approximately $63,000. This was due to a requirement for additional breakers and reclosers, that was not known until engineering design of the substation was complete, and the cost for some materials, equipment and hardware being higher than budget estimates.

[8] The unit price cost increase for excavated material removal was proportionally less than the select borrow supply cost increase, as Marshfield substation topsoil could be piled onto the neighbouring property, rather than having to be hauled away, as was the case for the Mount Albion substation.

IR-7 Section 6.1(b) – Crossroads Substation rebuild was over budget due to an increase for switches, breaker, hardware and the power transformer, as well as structural steel. Please provide additional support and explanations regarding this project.

Response:

Crossroads substation rebuild was over budget by approximately $729,000 in 2022. A breakdown of this over-budget variance is shown in Table 4.

TABLE 4
Breakdown of Crossroads Substation Rebuild Over-Budget Variance

Description	2022 Budget	2022 Actuals (Rounded)	Variance
Power Transformers[a]	$ 1,075,000	$ 1,410,000	$ 335,000
Structural Steel	147,000	522,000	375,000
Balance of Project	1,398,000	1,417,000	19,000
TOTAL	**$ 2,620,000**	**$ 3,349,000**	**$ 729,000**

a. Includes power transformer and oil containment system costs

The primary components of the over-budget variance is higher-than-expected power transformer and structural steel costs.

The $1,075,000 power transformer budget was based on a March 2021 supplier quotation for one power transformer, and a May 2021 supplier quotation for one transformer oil containment system. The power transformer and oil containment system quotes are provided on page 54 and 56, respectively, of Confidential Appendix S-10 in the 2022 Capital Budget Application. The quotations used for purchasing the power transformer and oil containment system, were obtained through competitive tendering processes, are provided herein, as IR-7 – Confidential Attachment 1 and IR-7 – Confidential Attachment 2, respectively.

The power transformers over-budget variance of approximately $335,000 reflects the cost of the power transformer increasing by approximately $274,000 and the cost of the oil containment system being $61,000 higher than budgeted.[9] The increase in power transformer cost of approximately 32 per cent over a period of just nine months is within the range of power transformer cost increases experienced across the industry in recent years.

The $147,000 structural steel supply and installation budget was based on a September 2020 supplier quotation for the Clyde River substation project, as the Crossroads substation rebuild assumed similar structural steel requirements and pricing.

[9] The oil containment system cost increase of $61,000 is due to the supplier quote being approximately $18,000 higher than the budget estimate, and a requirement for each new transformer to have its own oil containment system, which added $43,000 to 2022 budget requirement and will increase the 2023 budget requirement by approximately $110,000.

The structural steel over-budget variance of approximately $375,000 reflects the cost of structural steel budgeted for 2022 increasing by approximately $158,000,[10] and $217,000 in costs for structural steel supply,[11] budgeted for 2023, being incurred in 2022. Regarding the latter, structural steel required for 2023 was ordered early due to long delivery timelines and to avoid further price increases. The cost for fabricating and installing the on-order structural steel, estimated at $160,000, will still be incurred in 2023.

The balance of the Crossroads substation rebuild over-budget variance is approximately $19,000. This is associated with the cost for some materials, equipment and hardware, including high-voltage switches and bus-work components, being higher than budget estimates.

[10] The supplier quotation used for the supply and installation of structural steel in 2022 is provided herein, as IR-7 – Confidential Attachment 3.

[11] The supplier quotation, which reflects supply costs for material only, is provided herein, as IR-7 – Confidential Attachment 4.

I N T E R R O G A T O R I E S

IR-2 – Attachment 1

Maritime Electric
Capital Expenditure Forecast
For the Period Ended March 31, 2022

Project Description	2022 Annual Capital Budget Section	Actual To Date	2022 Approved Budget Order UE21-16	2022 Forecast	Variance - Budget vs Forecast	Notes
Generation						
Charlottetown Plant Buildings and Services Projects	4.1	$ 5,650	$ 30,000	$ 30,000	-	Purchase orders have been issued under CGS Miscellaneous Building and Site Upgrades with work to be completed in Q2. Engineering has started on the ECC Building Sidewalk Replacement project which is expected to be completed in Q3.
Charlottetown Plant Turbine-Generator Projects	4.2	30,453	524,000	524,000	-	A request for proposal ("RFP") is being prepared for the On-Island Generating Capacity Study project and work is expected to be completed in Q4. Electronic level gauges for CT3 fuel tanks have been ordered and installation is expected in Q3. Some parts have been ordered under the CT3 Miscellaneous Combustion Turbine Improvements project.
Borden Plant Projects	4.3	15,905	283,000	283,000	-	Commercial storage containers will be purchased from a supplier of "used" containers with delivery expected in late Q2. An RFP for work under Borden Maintenance Building and Electrical Upgrades has been issued and the project is expected to be completed in Q3.
Borden Turbine Generators		19,153	408,000	408,000		The consultant that will complete the CT1/CT2 life extension assessment has been selected and the project is expected to be completed in Q3, along with the Electronic Level Gauges for BGS Fuel Tanks project. Engineering has started work on the CT1 and CT2 Component Upgrades and the CT2 Detroit Diesel Starter Overhaul projects, with completion expected in Q4.
Subtotal - Generation		**$ 71,161**	**$ 1,245,000**	**$ 1,245,000**	**-**	
Distribution and Transmission						
Replacement due to Storms, Collisions, Fire and Road Alterations	5.1	$ 789,176	$ 1,631,000	$ 2,011,000	380,000	Expenditures on Replacements Due to Storms, Collisions, Fire and Road Alterations are tracking higher than budgeted due to numerous storms in Q1 that required restoration activity outside of normal working hours.
Distribution Transformers	5.2	839,166	5,337,000	5,337,000	-	Distribution transformer orders for 2022 have been placed and expenditures are expected to be within budget for the year. However, the delivery of single phase padmount transformers is not expected until 2023 due to supply chain issues.
Services and Street Lighting	5.3	1,732,393	5,573,000	5,913,000	340,000	Expenditures on Services and Street Lighting are tracking higher than budgeted as requests for new customer connections and service upgrades, driven by the provincial electrification programs (e.g., electrical vehicle charger, heat pumps, and net-metered solar installation incentives), continue to be high.
Line Extensions	5.4	342,203	2,572,000	3,922,000	1,350,000	Expenditures on Line Extensions are tracking below the budget allocation, however, construction on reliability-driven line extensions has not yet started and two large customer-driven line extensions, including a 4.5 kilometre ("km") three-phase conversion project in Donaldston and a 1.9 km three-phase conversion in Victoria, are expected to exceed the provisional budget allocation by approximately $1 million. These projects will have customer contributions totaling $289,170. The location selected for the Marshfield substation requires construction of approximately 1 km of three phase double circuit, that was not budgeted, to connect to the existing distribution system. The need for this additional work, which was not known at the time that the 2022 Capital Budget Application was filed with the Commission, is expected to cost approximately $350,000. Construction on the Mount Herbert and Glenn Drive reliability-driven line extension projects is expected to begin in Q2.
Line Rebuilds	5.5	673,688	8,876,000	8,876,000	-	Line Rebuild projects initiated in the quarter focused on detailed survey and design, with construction activity scheduled to begin in Q2. All work to date for the PEI Broadband Project has been recorded on page 2 as an expenditure under Capital Projects Carried Over from Prior Years - PEI Broadband Project.
System Meters	5.6	102,653	664,000	664,000	-	Expenditures on System Meters are tracking under budget for the quarter, but are expected to increase in Q2 and be on budget for the year.
Distribution Equipment	5.7	253,833	1,556,000	1,556,000	-	Distribution Equipment orders are being placed as needed to ensure timely supply of long delivery items. Supply chain issues are expected to delay delivery of some distribution equipment (e.g., voltage regulators).
Transportation Equipment	5.8	22,970	2,040,000	2,040,000	-	Purchase orders were issued in Q1 for the three line trucks including an aerial bucket truck, digger/derrick and customer service utility person ("CSUP") vehicle. As all three of these trucks have long deliveries (approximately 24 to 36 months), a portion of the proposed Transportation Equipment budget will need to be carried over to 2023 for payment to coincide with delivery. All budgeted small passenger vehicles have been ordered with the exception of the Meter Department SUV, as there is a waiting list to order this item as a plug-in hybrid electric vehicle. Equipment under the EV Charging Stations project has not yet been ordered.
Substation Projects	6.1	965,528	6,122,000	6,122,000	-	Internal engineering has been initiated for all substation projects and while it is too early to quantify the overall impact, labour and material costs associated with construction and some substation components are expected to be higher than budgeted. The 20 MVA Crossroads substation transformer has been ordered with delivery expected in Q3. Steel for the Marshfield substation has been installed and the contract for the high voltage equipment installation has been awarded.
Transmission Projects	6.2	347,563	2,767,000	2,767,000	-	Rebuild work on transmission line T-11 is expected to begin in Q2. Crossroads substation transmission modifications and work to connect the Marshfield substation to Y-104 is scheduled to begin in Q3. The West Royalty Substation Transmission Modifications project will be delayed to 2023 to coincide with the delivery of the X5 autotransformer. All transmission line programs are underway and expected to be completed within their respective budget allocations.
Subtotal - Distribution and Transmission (before customer contributions)		**$ 6,069,173**	**$ 37,138,000**	**$ 39,208,000**	**2,070,000**	
Less: Customer Contributions (w/o PEI Broadband Project)		(366,460)	(750,000)	(900,000)	(150,000)	Contributions are tracking above the provisional budget allocation, as customer demand for services and line extensions was higher than expected in Q1.
Less: Customer Contributions - PEI Broadband Project		(232,271)	(2,788,000)	(2,788,000)	-	
Subtotal - Distribution and Transmission		**$ 5,470,442**	**$ 33,600,000**	**$ 35,520,000**	**1,920,000**	

Maritime Electric
Capital Expenditure Forecast
For the Period Ended March 31, 2022

Project Description	2022 Annual Capital Budget Section	Actual To Date	2022 Approved Budget Order UE21-16	2022 Forecast	Variance - Budget vs Forecast	Notes
Corporate						
Corporate Services	7.1	$ 28,877	$ 656,000	656,000	-	Work to replace the roof at 180 Kent Street is expected to begin in Q2. The balance of the budget is provisional and expenditures will occur as capital improvements are needed.
Information Technology	7.2	325,802	3,379,000	3,379,000	-	Expenditures on Hardware Acquisitions are tracking under budget for the quarter but expected to increase in Q2, once replacement of data center equipment is ordered. Hardware procurement is being closely monitored, as some components may be impacted by supply chain delays. Expenditures on Purchased Software and Upgrades is also tracking under budget as licensing purchases with ESRI and Microsoft are not due until Q2. Work on all other Information Technology projects is either under way and tracking on budget, or scheduled to begin in Q2.
Subtotal - Corporate		**$ 354,679**	**$ 4,035,000**	**$ 4,035,000**	**-**	
Sub-total		**$ 5,896,282**	**$ 38,880,000**	**$ 40,800,000**	**1,920,000**	
Capitalized General Expense	8.0	180,272	690,000	720,000	30,000	Expenditures were slightly higher than budgeted in Q1 due to the additional resources being required for capital planning and reporting.
Interest During Construction	9.0	103,500	496,000	496,000	-	
Capital Projects Carried Over from Prior Years (W/O PEI Broadband Project)	Appendix I - 2021 Capital Variance Report	787,801	5,119,000	5,232,000	113,000	With the PEI Broadband Project reported as a separate line item below, expenditures for Capital Projects Carried Over from Prior Years are expected to be approximately $113,000, or 2 per cent, over the 'Carryover to 2022' amount identified in Appendix I (Column D) of the 2021 Capital Variance Report. The over-budget variance is due to expenditures to complete the Y-119 - Tap to Clyde River Substation project being higher than expected. Reasons for the variance included a requirement for additional crews to complete the work prior to system load restrictions, and significant snow removal being required for crew access to the line. The CT3 Generator Breaker and the Meter Shop Equipment projects were also completed in Q1, while all other "Capital Projects Carried Over from Prior Years" are ongoing.
Capital Projects Carried Over from Prior Years - PEI Broadband Project	Appendix I - 2021 Capital Variance Report	1,574,315	4,376,000	4,376,000	-	Four large make-ready projects requiring a total of approximately 33 km of line rebuild work are currently underway and expected to be completed in Q2. Other communication attachment make-ready work for Bell and Xplornet is ongoing and will continue through the year. Additional detail on the status of the PEI Broadband Project is provided in a quarterly report to the Commission, in accordance with Commission Order UE20-02.
Total		**$ 8,542,170**	**$ 49,561,000**	**$ 51,624,000**	**2,063,000**	

I N T E R R O G A T O R I E S

IR-2 – Attachment 2

Maritime Electric
Capital Expenditure Forecast
For the Period Ended June 30, 2022

Project Description	2022 Annual Capital Budget Section	Actual To Date	2022 Approved Budget Order UE21-16	2022 Forecast	Variance - Budget vs Forecast	Notes
Generation						
Charlottetown Plant Buildings and Services Projects	4.1	$ 7,604	$ 30,000	$ 30,000	-	Expenditures for CGS miscellaneous building and site upgrades are tracking on budget. The ECC building sidewalk replacement project is underway and scheduled to be completed in Q4.
Charlottetown Plant Turbine-Generator Projects	4.2	51,901	524,000	524,000	-	A consultant for the on-Island generating capacity study has been selected and the project is expected to be completed in Q4. Electronic level gauges for CT3 fuel tanks have been delivered and installation is planned for Q3. Expenditures for CT3 miscellaneous combustion turbine improvements are tracking on budget.
Borden Plant Projects	4.3	86,863	283,000	283,000	-	Commercial storage containers were delivered in Q2 and site installation work is scheduled for Q3. The contractor for the Borden maintenance building and electrical upgrades has been selected and the project is expected to be completed in Q4.
Borden Turbine Generators	4.4	135,080	408,000	410,000	2,000	The CT2 Detroit diesel starter overhaul was completed in Q2. CT1/CT2 life extension assessment is ongoing and expected to be completed in Q3 with an over-budget variance of $1,930. Electronic level gauges for Borden fuel tanks have been delivered and installation is planned for Q3. Engineering work is completed for CT1 and CT2 component upgrades, purchase orders have been issued and the project is on track to be completed in Q4.
CGS - Turbine - Generators General SBR	SBR - UE22-03	50	4,168,000	4,168,000	-	Engineering for the design of the building, preparation of tender documents, and the process to secure a building permit and rezoning approval is underway. A request for proposals for the building will be issued in Q3, construction is expected to begin in Q4 and completion is scheduled for Q3/Q4 of 2023.
Subtotal - Generation		**$ 281,498**	**$ 5,413,000**	**$ 5,415,000**	**2,000**	
Distribution and Transmission						
Replacement due to Storms, Collisions, Fire and Road Alterations	5.1	$ 1,421,100	$ 1,631,000	$ 2,011,000	380,000	Expenditures are tracking above the budget allocation due to numerous storms in Q1 that required restoration activity outside of normal working hours. Expenditures on storm response during Q2 were more closely aligned to budget.
Distribution Transformers	5.2	2,646,137	5,337,000	5,437,000	100,000	Distribution transformer orders for 2022 have been placed and expenditures are expected to be slightly higher than budgeted for the year due to inflationary cost increases. Delivery of single phase padmount transformers is not expected until 2023 due to supply chain issues, with a carryover of approximately $250,000 expected.
Services and Street Lighting	5.3	3,998,880	5,573,000	6,335,000	762,000	Expenditures are tracking above the budget allocation as requests for new customer connections and service upgrades, driven by the provincial electrification programs (e.g., electrical vehicle charger, heat pump, and net-metered solar installation incentives), continue to be high. Customer demand for street lighting is also high with 259 new LED lights already installed at the end of Q2, 109 more than was budgeted for the year.
Line Extensions	5.4	1,578,590	2,572,000	4,461,000	1,889,000	Expenditures are tracking approximately 73% above the budget allocation due to higher than anticipated customer-driven activity. Construction has started on a 4.5 kilometre ("km") three phase conversion in Donaldston, a 1.9 km three phase conversion in Victoria and a 120 metre three phase extension to the Sherwood School. These projects are customer driven and will have contributions totaling $311,000. There are also numerous smaller customer-driven line extensions completed year to date. Construction on the Mount Herbert reliability-driven line extension was completed in Q2, and the Glenn Drive reliability-driven line extension began in Q2 and is expected to be completed in Q3. The location selected for the Marshfield (East Royalty) substation requires construction of approximately 1 km of three phase double circuit, that was not budgeted, to connect to the existing distribution system. The need for this additional work, which was not known at the time that the 2022 Capital Budget Application was filed with the Commission, is expected to cost approximately $350,000 and will be completed in Q3.
Line Rebuilds	5.5	786,566	8,876,000	8,406,000	(470,000)	The 0.9 km Kingston Road three phase rebuild was completed in Q2, and the 5.8 km North York Road voltage conversion and 3 km Rustico Road three phase conversion are expected to be completed in Q3 and Q4, respectively. The $470,000 budget allocation for the Northside Road line rebuild will not be required, as the project is being completed as an Xplornet make-ready under the PEI Broadband Project. The eastern cedar pole replacement program is currently tracking under the budget allocation, as a significant amount of replacement work was carried over from the 2021 Capital Budget. This carryover work is now complete and a plan is in place to complete the 2022 program replacements on schedule. All other line rebuild programs are underway and tracking to be completed on schedule, within their respective budget allocations. All work to date for the PEI Broadband Project is recorded on page two, under Capital Projects Carried Over from Prior Years - PEI Broadband Project.
System Meters	5.6	224,538	664,000	664,000	-	Expenditures on system meters are tracking under budget for the quarter as meter shipments have been delayed. This is expected to be corrected early in Q3 and be on budget for the year.
Distribution Equipment	5.7	616,619	1,556,000	1,556,000	-	Distribution equipment orders are tracking on budget and being placed as needed, to ensure timely supply of long-delivery items. Supply chain issues are expected to delay the arrival of some distribution equipment (e.g., voltage regulators).
Transportation Equipment	5.8	731,477	2,040,000	2,040,000	-	Purchase orders were issued in Q1 for the three line trucks including an aerial bucket truck, digger/derrick and customer service utility person ("CSUP") vehicle. As all three of these trucks have long deliveries (approximately 24 to 36 months), a portion of the proposed transportation equipment budget will need to be carried over to 2023 for payment to coincide with delivery. All budgeted small passenger vehicles have been ordered with the exception of the Meter Department SUV, as there is a waiting list to order this item as a plug-in hybrid electric vehicle. Equipment under the EV charging stations project has not yet been ordered.
Substation Projects	6.1	3,139,519	6,122,000	7,092,000	970,000	Expenditures on substation projects are tracking approximately 16 per cent over budget due to inflationary increases in construction labour and/or materials costs on some projects. The Marshfield (East Royalty) substation project has an over-budget variance of $250,000 forecast, primarily due to inflationary cost increases for civil contractor site work. The Crossroads substation rebuild has an over-budget variance of $590,000 forecast due to inflationary cost increases for materials, including a power transformer and other equipment. The West Royalty X5 autotransformer upgrade project is also forecast to have an over-budget variance due to an inflationary cost increase of $130,000 for power transformer equipment. The Cavendish feeder automation has been delayed until at least Q4, due to limited availability of cybersecurity resources required for the project. All other substation projects are underway and tracking within their respective budget allocations.
Transmission Projects	6.2	987,202	2,767,000	2,767,000	-	Rebuild work on transmission line T-11 and Crossroads substation transmission modifications are expected to be completed in Q3, and work to connect the Marshfield substation to Y-104 is also underway and expected to be completed in Q4. The West Royalty substation transmission modifications project will be delayed to 2023 to coincide with the delivery of the X5 autotransformer. All transmission line programs are underway and expected to be completed within their respective budget allocations.
Subtotal - Distribution and Transmission (before customer contributions)		**$ 16,130,628**	**$ 37,138,000**	**$ 40,769,000**	**3,631,000**	
Less: Customer Contributions (w/o PEI Broadband Project)		(1,090,424)	(750,000)	(1,074,000)	(324,000)	Contributions are tracking above the provisional budget allocation, as customer demand for services and line extensions has been higher than expected, year to date.

Maritime Electric
Capital Expenditure Forecast
For the Period Ended June 30, 2022

Project Description	2022 Annual Capital Budget Section	Actual To Date	2022 Approved Budget Order UE21-16	2022 Forecast	Variance - Budget vs Forecast	Notes
Less: Customer Contributions - PEI Broadband Project		-	(2,788,000)	(2,788,000)	-	All contributions year to date for the PEI Broadband Project are recorded on page two, under Customer Contributions Carried Over from Prior Years - PEI Broadband Project.
Subtotal - Distribution and Transmission		**$ 15,040,204**	**$ 33,600,000**	**$ 36,907,000**	**3,307,000**	
Corporate						
Corporate Services	7.1	$ 149,608	$ 656,000	656,000	-	Work to replace the roof at 180 Kent Street was delayed due to contractor availability and is now planned to begin in Q3. The balance of the budget is provisional and expenditures will occur as capital improvements are needed.
Information Technology	7.2	1,085,869	3,379,000	3,379,000	-	Expenditures on hardware aquisitions are tracking below the budget allocation year to date but expected to be on budget when the replacement of data center equipment is completed. Hardware procurement is being closely monitored, as some components may be impacted by supply chain delays. Expenditures on purchased software and upgrades is tracking on budget and work on all other projects is either under way and tracking on budget, or scheduled to begin in Q3.
Subtotal - Corporate		**$ 1,235,477**	**$ 4,035,000**	**$ 4,035,000**	**-**	
Sub-total		**$ 16,557,179**	**$ 43,048,000**	**$ 46,357,000**	**3,309,000**	
Capitalized General Expense	8.0	355,410	690,000	740,000	50,000	Expenditures are tracking slightly above the budget allocation due to workload requirements and inflationary impacts on transportation fuel costs.
Interest During Construction	9.0	201,400	496,000	562,000	66,000	Interest during construction is expected to be approximately 13 per cent above the budget allocation, based on the 2022 capital project forecasts provided in this report.
Capital Projects Carried Over from Prior Years (w/o PEI Broadband Project)	Appendix I 2021 Capital Variance Report	2,771,106	5,289,000	5,405,000	116,000	With the PEI Broadband Project reported as a separate line item below, expenditures for Capital Projects Carried Over from Prior Years are expected to be $116,000, or approximately 2 per cent, over the 'Carryover to 2022' amount identified in Appendix I (Column D) of the 2021 Capital Variance Report. The over-budget variance is primarily due to expenditures to complete the Y-119 transmission line project being $113,000 higher than expected, as reported at the end of Q1. Other capital projects carried over from prior years have been completed in Q2 , or are ongoing and expected to be completed by the end of the year, with only a collective small variance to the approved budget allocation forecast.
Capital Projects Carried Over from Prior Years - PEI Broadband Project	Appendix I 2021 Capital Variance Report	3,776,098	6,984,000	6,984,000	-	Four large make-ready projects requiring a total of approximately 33 km of line rebuild and three pole replacement projects (totaling 210 poles) are expected to be completed in Q3. Other communication attachment make-ready work for Bell and Xplornet is ongoing and will continue through the year. Additional detail on the status of the PEI Broadband Project is provided in a quarterly report to the Commission, in accordance with Commission Order UE20-02.
Less: Customer Contributions Carried Over from Prior Years (w/o PEI Broadband Project)	Appendix I 2021 Capital Variance Report	(163,280)	(170,000)	(170,000)	-	Contributions are associated with the 2020-5.8 SBR EV Charging Stations Project.
Less: Customer Contributions Carried Over from Prior Years - PEI Broadband Project	Appendix I 2021 Capital Variance Report	(232,272)	(2,608,000)	(2,608,000)	-	Contributions are associated with the 2020-5.5 SBR PEI Broadband Project and the 2021-5.5 PEI Broadband Project.
Total		**$ 23,265,641**	**$ 53,729,000**	**$ 57,270,000**	**$ 3,541,000**	

I N T E R R O G A T O R I E S

IR-2 – Attachment 3

Maritime Electric
Capital Expenditure Forecast
For the Period Ended September 30, 2022

Project Description	2022 Annual Capital Budget Section	Actual To Date	2022 Approved Budget Order UE21-16 A	2022 Forecast B	2022 Forecast Carryover to 2023 C	Total Forecast D = B + C	Variance - Budget vs Forecast E = D - A	Notes
Generation								
Charlottetown Plant Buildings and Services Projects	4.1	$ 8,992	$ 30,000	$ 12,000	$ 18,000	$ 30,000	$ -	Expenditures for CGS miscellaneous building and site upgrades are tracking on budget. The ECC building sidewalk replacement project is delayed due to the need to relocate some communications wiring, which will require a carryover of approximately $18,000.
Charlottetown Plant Turbine-Generator Projects	4.2	241,086	524,000	454,000	70,000	524,000	-	The on-Island generating capacity study will be completed in Q4 for a cost approximately $70,000 less than budgeted; however, the study does not address where new on-Island capacity resources should be located. To complete a location study, a carryover of the $70,000 remaining project budget will be required . All other Charlottetown Plant turbine generator projects are tracking on budget and expected to be completed in Q4.
Borden Plant Projects	4.3	291,872	283,000	301,000	-	301,000	18,000	The commercial storage containers project is complete with an over-budget variance of approximately $3,000. The contract for the Borden maintenance building and electrical upgrades is expected to be completed in Q4 with an over-budget variance of approximately $15,000.
Borden Turbine Generators	4.4	299,952	408,000	356,000	39,000	395,000	(13,000)	The CT2 Detroit diesel starter overhaul was completed with an under-budget variance of $46,000 and a carryover of $39,000 will be required to complete CT2 stack coating improvements. All other Borden Generating Station turbine generator projects are expected to be completed on schedule with a collective over-budget variance of $33,000.
CT3 Equipment Building - Supplemental Budget Request ("SBR")	SBR - UE22-03	202,786	4,168,000	700,000	5,268,000	5,968,000	1,800,000	Engineering for the design of the building, preparation of tender documents, and the process to secure a building permit and rezoning approval have all been completed. A request for proposals for the building was issued in Q3 and a contract has been awarded. Construction began in November and is expected to be completed by the end of 2023, requiring a carryover of $5,268,000. An over-budget variance of approximately $1,800,000 is expected due to significant changes in construction costs since the budget estimate for the SBR application was developed. Additional detail on the status of the CT3 Equipment Building is provided in semi-annual reports to the Commission, in accordance with Commission Order UE22-03.
Subtotal - Generation		**$ 1,044,688**	**$ 5,413,000**	**$ 1,823,000**	**$ 5,395,000**	**$ 7,218,000**	**$ 1,805,000**	
Distribution and Transmission								
Replacement due to Storms, Collisions, Fire and Road Alterations	5.1	$ 1,764,976	$ 1,631,000	$ 2,171,000	$ -	$ 2,171,000	$ 540,000	Outage response expenditures are tracking above the budget allocation by approximately $380,000 due to numerous storms in Q1 that required restoration activity outside of normal working hours. Expenditures on storm response during Q2 and Q3, were more closely aligned to budget, with Hurricane Fiona costs excluded. Expenditures related to Department of Transportation road alterations have reached the total budgeted amount for 2022 and an over-budget variance of approximately $160,000 is anticipated as some work remains for Q4, including line work to accommodate construction on Warren Grove Bridge and Rusticoville Bridge.
Distribution Transformers	5.2	3,220,807	5,337,000	4,570,000	1,345,000	5,915,000	578,000	Distribution transformer expenditures are forecast to be higher than budgeted due to inflationary cost increases, with an over-budget variance of approximately $578,000 expected. A carryover of $1,345,000 will be required as replacements for the transformers used during Fiona will not be received until 2023.
Services and Street Lighting	5.3	5,690,540	5,573,000	6,900,000	-	6,900,000	1,327,000	Expenditures on customer service work is expected to have an over-budget variance of approximately $1,127,000, with requests for new customer connections and service upgrades tracking approximately 10 per cent above 2021 levels. An over-budget variance of approximately $200,000 for street lighting is also forecast, with 439 new LED lights already installed at the end of Q3, 289 more than was budgeted for the year.
Line Extensions	5.4	3,017,405	2,572,000	4,216,000	-	4,216,000	1,644,000	Expenditures are tracking above the budget allocation due to two large customer-driven projects that were not known at the time that the 2022 Capital Budget Application was filed with the Commission. These unbudgeted projects, which include a 4.5 kilometre ("km") three phase conversion in Donaldston and a 1.9 km three phase conversion on Victoria Road, have been completed with costs totaling $1,269,000 (accounting for approximately 77 per cent of the over-budget variance). Numerous smaller customer-driven line extensions have also been completed with costs tracking within the budget allocation. Reliability-driven projects are progressing well with the three phase conversion in Mount Herbert completed with an over-budget variance of approximately $25,000, and the Glenn Drive line extension 90 per cent complete and tracking on budget. The location selected for the Marshfield (East Royalty) substation required 1.2 km of three phase double circuit construction at a cost of approximately $350,000. The need for this additional work was also not known at the time that the 2022 Capital Budget Application was filed, because the anticipated location for the Marshfield subsation was different from the selected location.
Line Rebuilds	5.5	3,424,090	8,876,000	6,242,000	2,164,000	8,406,000	(470,000)	The 5.8 km North York Road line rebuild and voltage conversion and the 0.9 km Kingston Road rebuild projects are completed. The 3.8 km Rustico Road three phase line rebuild and voltage conversion is expected to be completed in Q4. The eastern cedar pole replacement program is on schedule and budget. The $470,000 budget allocation for the Northside Road rebuild is not required as the project is being completed through the Xplornet component of the PEI Broadband Project. All other line rebuild programs are underway and tracking to be completed on schedule within their respective budget allocations. A carryover requirement of $2,164,000 is estimated for the PEI Broadband Project. Additional detail on the status of the PEI Broadband Project is provided in quarterly reports to the Commission, in accordance with Commission Order UE20-02.
System Meters	5.6	513,506	664,000	764,000	-	764,000	100,000	An over-budget variance of approximately $100,000 is due to system meter costs being are higher than expected due to inflationary increases, and additional meter requirements as a result of continued strong demand for net metering installations.
Distribution Equipment	5.7	895,819	1,556,000	1,556,000	-	1,556,000	-	Distribution equipment orders are tracking on budget and all items are expected to be completed this year.
Transportation Equipment	5.8	837,258	2,040,000	875,000	1,165,000	2,040,000	-	All three line trucks and all small passenger vehicles have been ordered with the exception of the Meter Department SUV, as there is a waiting list to order this item as a plug-in hybrid electric vehicle. A carryover of approximately $1,150,000 will be required to allow for long deliveries (24 to 36 months for line trucks) and delays ordering other items. Equipment under the EV charging stations project is expected to require a carryover of $15,000.
Substation Projects	6.1	5,184,712	6,122,000	7,059,000	468,000	7,527,000	1,405,000	The Marshfield (East Royalty) substation project has an over-budget variance of $364,000 forecast, primarily due to cost increases for civil contractor site work and some equipment, including a power transformer. The Crossroads substation rebuild is expected to have an over-budget variance of $700,000 due to equipment cost increases (also including a power transformer). The West Royalty X5 autotransformer upgrade project is forecast to have an over-budget variance due to an inflationary cost increase of $130,000 for the new autotransformer. The Cavendish feeder automation project will require a carryover of $233,000 due to limited availability of cybersecurity resources required for the project, the mobile communications system upgrade project will require a carryover of $35,000 to complete testing and commissioning of installed equipment, and a carryover of approximately $200,000 will be required due to late shipment of 138 kV breakers for the Bedeque and Marshfield substations. All other substation projects are underway and tracking within budget.
Transmission Projects	6.2	1,694,032	2,767,000	2,719,000	48,000	2,767,000	-	Rebuild work for the Crossroads substation transmission modifications and work to connect the Marshfield substation to Y-104 is completed. The rebuild of T-11 transmission line will be completed in Q4. The West Royalty substation transmission modifications project will be delayed to 2023 to coincide with the delivery of the X5 autotransformer, requiring a carryover of $48,000. All transmission line programs are underway and expected to be completed within their respective budget allocations.
Subtotal - Distribution and Transmission (before customer contributions)		**$ 26,243,145**	**$ 37,138,000**	**$ 37,072,000**	**$ 5,190,000**	**$ 42,262,000**	**$ 5,124,000**	
Less: Customer Contributions (w/o PEI Broadband Project)		(1,113,629)	(750,000)	(1,250,000)	-	(1,250,000)	(500,000)	Contributions are tracking above the provisional budget allocation, as customer demand for services and line extensions has been higher than expected, year to date.
Less: Customer Contributions - PEI Broadband Project		-	(2,788,000)	-	(2,788,000)	(2,788,000)	-	All contributions year to date for the PEI Broadband Project are recorded on page two, under Customer Contributions Carried Over from Prior Years - PEI Broadband Project.
Subtotal - Distribution and Transmission		**$ 25,129,516**	**$ 33,600,000**	**$ 35,822,000**	**$ 2,402,000**	**$ 38,224,000**	**$ 4,624,000**	

Maritime Electric
Capital Expenditure Forecast
For the Period Ended September 30, 2022

Project Description	2022 Annual Capital Budget Section	Actual To Date	2022 Approved Budget Order UE21-16 A	2022 Forecast B	2022 Forecast Carryover to 2023 C	Total Forecast D = B + C	Variance - Budget vs Forecast E = D - A	Notes
Corporate								
Corporate Services	7.1	$ 304,288	$ 656,000	$ 581,000	$ 75,000	$ 656,000	$ -	Work to replace the roof at 180 Kent Street was completed in Q3. A carryover of $75,000 will be required due to a forklift replacement that has been delayed to 2023. The balance of the budget is provisional and expenditures will occur as capital improvements are needed.
Information Technology	7.2	1,333,826	3,379,000	3,169,000	210,000	3,379,000	-	Expenditures on hardware acquisitions are tracking below the budget allocation year to date but expected to be on budget when the replacement of data center equipment is completed. The health safety and environment information application project is still in the vendor evaluation process and will require a carryover of $51,000. The load flow software project and the substation communication system upgrade project will require carryovers of $34,000 and $125,000, respectively, to complete installation and testing. Expenditures on all other projects is under way and tracking on budget.
Subtotal - Corporate		**$ 1,638,114**	**$ 4,035,000**	**$ 3,750,000**	**$ 285,000**	**$ 4,035,000**	**$ -**	
Sub-total		**$ 27,812,318**	**$ 43,048,000**	**$ 41,395,000**	**$ 8,082,000**	**$ 49,477,000**	**$ 6,429,000**	
Capitalized General Expense	8.0	$ 543,965	$ 690,000	$ 740,000	$ -	$ 740,000	$ 50,000	Expenditures are tracking slightly above the budget allocation due to workload requirements and inflationary impacts on transportation fuel costs.
Interest During Construction	9.0	319,200	496,000	671,000	-	671,000	175,000	Interest during construction is expected to be approximately 35 per cent above the budget allocation, due to increased lending rates and project costs.
Capital Projects Carried Over from Prior Years (w/o PEI Broadband Project)	Appendix I 2021 Capital Variance Report	3,494,122	5,289,000	4,860,000	657,000	5,517,000	228,000	Excluding the PEI Broadband Project, which is reported as a separate line item below, expenditures for Capital Projects Carried Over from Prior Years are expected to be approximately $228,000, or 4 per cent, over the 'Carryover to 2022' amount identified in Appendix I (Column D) of the 2021 Capital Variance Report. The over-budget variance is primarily due to expenditures to complete the Y-119 transmission line project being $113,000 higher than expected and the cost to purchase land for the O'Leary Interconnection (renamed Woodstock switching station) project being $115,000 higher than budgeted. One item, Transportation Equipment from 2021, will require a further carryover of $657,000 to 2023. All other capital projects carried over from prior years have been completed, or are ongoing and expected to be completed by the end of the year, with only a collective small variance above the approved budget allocation.
Capital Projects Carried Over from Prior Years - PEI Broadband Project	Appendix I 2021 Capital Variance Report	4,505,976	6,984,000	4,995,000	1,989,000	6,984,000	-	Four large make-ready projects requiring a total of approximately 33 km of line rebuild and three pole replacement projects (totaling 210 poles) will be completed in Q4. Other communication attachment make-ready work for Bell and Xplornet is ongoing. Additional detail on the status of the PEI Broadband Project is provided in quarterly reports to the Commission, in accordance with Commission Order UE20-02.
Less: Customer Contributions Carried Over from Prior Years (w/o PEI Broadband Project)	Appendix I 2021 Capital Variance Report	(163,206)	(170,000)	(170,000)	-	(170,000)	-	Contributions are associated with the 2020-5.8 SBR EV Charging Stations Project.
Less: Customer Contributions Carried Over from Prior Years - PEI Broadband Project	Appendix I 2021 Capital Variance Report	(1,341,961)	(2,608,000)	(232,000)	(2,376,000)	(2,608,000)	-	Contributions are associated with the 2020-5.5 SBR PEI Broadband Project and the 2021-5.5 PEI Broadband Project.
Total		**$ 35,170,414**	**$ 53,729,000**	**$ 52,259,000**	**$ 8,352,000**	**$ 60,611,000**	**$ 6,882,000**	Approximately 60 per cent of the forecast over-budget variance is related to inflationary cost increases. The balance is associated with customer-driven work exceeding provisional budget allocations, above average storm and other outage response activity, and necessary system alterations that were not known at the time that the 2022 Capital Budget was filed with the Commission.

I N T E R R O G A T O R I E S

IR-5(a) – Attachment 1

Project Code	Description	Budget	Actual	Carryover	Total	Variance	Type
10001	a) ECC Building Sidewalk Replacement	$ 21,000	$ 3,361	$ 18,000	$ 21,361	$ 361	project
	b) CGS Miscellaneous Building and Site Upgrades	$ 9,000	$ 8,612	$ -	$ 8,612	$ (388)	provisional
	Charlottetown Generating Station - Buildings and Site Services	**$ 30,000**	**$ 11,973**	**$ 18,000**	**$ 29,973**	**$ (27)**	
10003	a) On-Island Generating Capacity Study	$ 320,000	$ 211,721	$ 108,000	$ 319,721	$ (279)	project
	b) Electronic Level Gauges for CT3 Fuel Tanks	$ 40,000	$ 39,541	$ -	$ 39,541	$ (459)	project
	c) CGS Combustion Turbine Improvements, Parts and Tools	$ 164,000	$ 175,920	$ -	$ 175,920	$ 11,920	provisional
	Charlottetown Generating Station - Turbine Generator	**$ 524,000**	**$ 427,182**	**$ 108,000**	**$ 535,182**	**$ 11,182**	
20004	a) Commercial Storage Containers	$ 90,000	$ 92,017	$ -	$ 92,017	$ 2,017	project
	b) BGS Miscellaneous Building and Site Upgrades	$ 193,000	$ 211,332	$ -	$ 211,332	$ 18,332	provisional
	Borden Generating Station - Buildings and Site Services	**$ 283,000**	**$ 303,349**	**$ -**	**$ 303,349**	**$ 20,349**	
20004	a) CT1 and CT2 Life Extension Engineering Assessment	$ 48,000	$ 56,226	$ -	$ 56,226	$ 8,226	project
	b) CT2 Detroit Diesel Starter Overhaul	$ 63,000	$ 20,148	$ -	$ 20,148	$ (42,852)	project
	c) CT1 and CT2 Component Upgrades	$ 131,000	$ 101,778	$ 39,000	$ 140,778	$ 9,778	project
	d) Electronic Level Gauges for BGS Fuel Tanks	$ 58,000	$ 55,793	$ -	$ 55,793	$ (2,207)	project
	e) BGS Combustion Turbine Improvements, Parts and Tools	$ 108,000	$ 163,915	$ -	$ 163,915	$ 55,915	provisional
	Borden Generating Station - Turbine Generators	**$ 408,000**	**$ 397,860**	**$ 39,000**	**$ 436,860**	**$ 28,860**	
	GENERATION TOTAL	**$ 1,245,000**	**$ 1,140,364**	**$ 165,000**	**$ 1,305,364**	**$ 60,364**	
70200	a) Replacements due to Storms, Fires and Collisions	$ 990,000	$ 1,341,253	$ -	$ 1,341,253	$ 351,253	provisional
	b) Replacements due to Road Alterations	$ 641,000	$ 734,623	$ -	$ 734,623	$ 93,623	provisional
	Replacements Due to Storms and Road Alterations	**$ 1,631,000**	**$ 2,075,876**	**$ -**	**$ 2,075,876**	**$ 444,876**	
70202	a) Polemount and Padmount Transformers	$ 5,337,000	$ 4,459,495	$ 1,370,000	$ 5,829,495	$ 492,495	provisional
	Distribution Transformers	**$ 5,337,000**	**$ 4,459,495**	**$ 1,370,000**	**$ 5,829,495**	**$ 492,495**	
70203	a) Overhead and Underground Services	$ 4,738,000	$ 5,749,876	$ -	$ 5,749,876	$ 1,011,876	provisional
	b) Street and Area Lighting Lighting	$ 835,000	$ 1,016,614	$ -	$ 1,016,614	$ 181,614	provisional
	Services and Street Lighting	**$ 5,573,000**	**$ 6,766,490**	**$ -**	**$ 6,766,490**	**$ 1,193,490**	
70204	a) Customer Driven Line Extensions	$ 1,447,000	$ 2,787,364	$ -	$ 2,787,364	$ 1,340,364	provisional
	b) Glenn Drive Three Phase Conversion	$ 510,000	$ 467,103	$ -	$ 467,103	$ (42,897)	project
	b) Mount Herbert Three Phase Conversion	$ 615,000	$ 609,907	$ -	$ 609,907	$ (5,093)	project
	b) Marshfield Distribution Double Circuit	$ -	$ 359,461	$ -	$ 359,461	$ 359,461	project
	Line Extensions	**$ 2,572,000**	**$ 4,223,835**	**$ -**	**$ 4,223,835**	**$ 1,651,835**	
70205	a) Northside Road (Route 16) Line Rebuild	$ 470,000	$ -	$ -	$ -	$ (470,000)	project
	a) Rustico Road (Route 7) Line Rebuild and Voltage Conversion	$ 1,233,000	$ 1,131,680	$ -	$ 1,131,680	$ (101,320)	project
	a) Kingston Road (Route 235) Line Rebuild	$ 200,000	$ 201,652	$ -	$ 201,652	$ 1,652	project
	a) North York (Route 248) Line Rebuild and Voltage Conversion	$ 302,000	$ 296,017	$ -	$ 296,017	$ (5,983)	project
	b) PEI Broadband Project	$ 4,564,000	$ 2,047,487	$ 2,532,000	$ 4,579,487	$ 15,487	project
	c) Distribution Line Refurbishment Program	$ 794,000	$ 747,927	$ -	$ 747,927	$ (46,073)	program
	d) Porcelain Cutout Replacement Program	$ 102,000	$ 100,065	$ -	$ 100,065	$ (1,935)	program
	d) Eastern Cedar Pole Replacement Program	$ 1,211,000	$ 1,445,026	$ -	$ 1,445,026	$ 234,026	program
	Line Rebuilds	**$ 8,876,000**	**$ 5,969,854**	**$ 2,532,000**	**$ 8,501,854**	**$ (374,146)**	
70206	System Meters	$ 664,000	$ 752,762	$ -	$ 752,762	$ 88,762	provisional
	Metering	**$ 664,000**	**$ 752,762**	**$ -**	**$ 752,762**	**$ 88,762**	
70207	a) Substation, Line, Communications (incl. relays and switches)	$ 1,032,000	$ 849,181	$ 183,000	$ 1,032,181	$ 181	program
	b) Teleprotection and Relay Replacement	$ 158,000	$ 106,146	$ 52,000	$ 158,146	$ 146	program
	c) Distribution Switches	$ 113,000	$ 25,576	$ 87,000	$ 112,576	$ (424)	program
	d) Line Tools and Equipment	$ 222,000	$ 165,220	$ 57,000	$ 222,220	$ 220	program
	e) Meter Shop Equipment	$ 31,000	$ 8,241	$ 23,000	$ 31,241	$ 241	program
	Distribution Equipment	**$ 1,556,000**	**$ 1,154,364**	**$ 402,000**	**$ 1,556,364**	**$ 364**	
90141	Transportation Equipment	$ 2,040,000	$ 290,597	$ 1,744,000	$ 2,034,597	$ (5,403)	program
	Transportation Equipment	**$ 2,040,000**	**$ 290,597**	**$ 1,744,000**	**$ 2,034,597**	**$ (5,403)**	
	DISTRIBUTION TOTAL	**$ 28,249,000**	**$ 25,693,273**	**$ 6,048,000**	**$ 31,741,273**	**$ 3,492,273**	
80220	a) East Royalty Substation	$ 1,226,000	$ 1,679,314	$ 160,000	$ 1,839,314	$ 613,314	project
	b) Crossroads Substation Rebuild	$ 2,620,000	$ 3,349,505	$ -	$ 3,349,505	$ 729,505	project
	c) West Royalty X5 Autotransformer Upgrade	$ 363,000	$ 501,707	$ -	$ 501,707	$ 138,707	project
	d) Substation Oil Containment	$ 147,000	$ 59,658	$ 88,000	$ 147,658	$ 658	program
	e) Substation Modernization	$ 588,000	$ 439,704	$ 148,000	$ 587,704	$ (296)	program
	f) 138 kV Breaker Replacement Program	$ 146,000	$ 47,541	$ 100,000	$ 147,541	$ 1,541	program
	g) Mobile Communications Upgrade	$ 467,000	$ 430,759	$ 37,000	$ 467,759	$ 759	project
	h) Cavendish Feeder Automation	$ 233,000	$ -	$ -	$ -	$ (233,000)	project
	i) Rattenbury Small Scale Solar and Battery Storage Pilot	$ 165,000	$ 165,100	$ -	$ 165,100	$ 100	project
	j) SCADA Master System Refresh	$ 129,000	$ 128,067	$ -	$ 128,067	$ (933)	project
	k) Fibre Modifications due to Road Alterations	$ 38,000	$ 38,079	$ -	$ 38,079	$ 79	provisional
	Communication Fibre - Alberton to Tignish	$ -	$ 101,000	$ -	$ 101,000	$ 101,000	project
	Substation Projects	**$ 6,122,000**	**$ 6,940,434**	**$ 533,000**	**$ 7,473,434**	**$ 1,351,434**	
80219	a) 69 Kv and 138 Kv Switch Inspection and Repair Program	$ 590,000	$ 494,023	$ 96,000	$ 590,023	$ 23	program
	b) Transmission Line Refurbishment Program	$ 932,000	$ 932,028	$ -	$ 932,028	$ 28	program
	c) T-11 Rebuild	$ 829,000	$ 762,013	$ 67,000	$ 829,013	$ 13	project
	c) Transmission Tap East Royalty Substation	$ 287,000	$ 275,876	$ -	$ 275,876	$ (11,124)	project
	c) Crossroads Substation Transmission Modifications	$ 81,000	$ 84,108	$ -	$ 84,108	$ 3,108	project
	c) West Royalty Substation Transmission Modifications	$ 48,000	$ -	$ 48,000	$ 48,000	$ -	project
	Transmission Lines	**$ 2,767,000**	**$ 2,548,048**	**$ 211,000**	**$ 2,759,048**	**$ (7,952)**	
	TRANSMISSION TOTAL	**$ 8,889,000**	**$ 9,488,482**	**$ 744,000**	**$ 10,232,482**	**$ 1,343,482**	
90130	a) Facilities Upgrade Projects	$ 441,000	$ 306,462	$ 225,000	$ 531,462	$ 90,462	provisional
	b) 180 Kent Roof Replacement	$ 215,000	$ 96,870	$ -	$ 96,870	$ (118,130)	project
	Corporate Services	**$ 656,000**	**$ 403,332**	**$ 225,000**	**$ 628,332**	**$ (27,668)**	
90140	a) Hardware Acquisitions	$ 996,000	$ 959,109	$ -	$ 959,109	$ (36,891)	program
	b) Purchased Software Upgrades	$ 546,000	$ 546,731	$ -	$ 546,731	$ 731	program
	c) Cybersecurity Enhancements	$ 547,000	$ 435,907	$ 71,000	$ 506,907	$ (40,093)	program
	f) Customer Services and Communication Enhancements	$ 134,000	$ 58,278	$ 76,000	$ 134,278	$ 278	program
	g) Load Flow Software	$ 134,000	$ 67,682	$ 35,000	$ 102,682	$ (31,318)	project
	h) Website Hosting	$ 98,000	$ 85,856	$ -	$ 85,856	$ (12,144)	project
	i) Survey Diagram Software	$ 98,000	$ 51,586	$ 30,000	$ 81,586	$ (16,414)	project
	j) Health, Safety and Environment Application	$ 58,000	$ 7,405	$ 51,000	$ 58,405	$ 405	project
	k) Substation Communications System Upgrade	$ 768,000	$ 446,094	$ 322,000	$ 768,094	$ 94	project
	Information Technology	**$ 3,379,000**	**$ 2,658,648**	**$ 585,000**	**$ 3,243,648**	**$ (135,352)**	
	CORPORATE TOTAL	**$ 4,035,000**	**$ 3,061,980**	**$ 810,000**	**$ 3,871,980**	**$ (163,020)**	
	TOTAL	**$ 42,418,000**	**$ 39,384,099**	**$ 7,767,000**	**$ 47,151,099**	**$ 4,733,099**	

TABLE 2
Breakdown of 2022 Capital Budget Items by Type[a]

Type	Budget	Actual	Variance ($)	Variance (%)
Provisional	$ 15,605,000	$ 19,341,307	$ 3,736,307	24%
Project	$ 16,484,000	$ 17,373,834	$ 889,834	5%
Program	$ 10,329,000	$ 10,435,958	$ 106,958	1%
TOTAL	**$ 42,418,000**	**$ 47,151,099**	**$ 4,733,099**	**11%**

a. Included in the response to IR-5(a) as Table 2.