All our energy.
All the time.

MARITIME ELECTRIC
A FORTIS COMPANY

July 21, 2023

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

Dear Ms. Mosher:

Supplemental Capital Budget Request
Advance Metering for Sustainable Electrification Project – Docket UE20737
Response to Interrogatories from Commission Staff

Please find attached the Company's responses to interrogatories from Commission Staff with respect to the Advance Metering for Sustainable Electrification Project received on May 30, 2023.

An electronic copy of this submission will be forwarded shortly.

Yours truly,

MARITIME ELECTRIC

Gloria Crockett

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

GCC28
Enclosure

180 Kent Street • PO Box 1328 • Charlottetown, PE C1A 7N2
telephone 1-800-670-1012 • **fax** 902-629-3665 • **maritimeelectric.com**

IR-1 The Hurricane Fiona Post-Mortem Report dated March 7, 2023, Maritime Electric describes technological challenges that impacted restoration efforts.

a. The analysis and recommendations of TMG Consulting and Util-Assist were finalized before Post-Tropical Storm Fiona. In light of the technological issues encountered during Fiona, is any change to the scope or application of this Project warranted?

b. How will the proposed Customer Information System (CIS) and Advanced Metering Infrastructure (AMI) improve MECL's response to events such as Post-Tropical Storm Fiona?

Response:

a. There are no changes in scope or application of the Advanced Metering for Sustainable Electrification Project ("Project") required due to technological issues encountered during Hurricane Fiona ("Fiona"). However, learnings from the Fiona restoration will impact all Project decisions that have the potential to improve Company operations during future restoration events.

b. The Company is currently considering proposals received from CIS and AMI vendors and each vendor has different solutions for each individual component of the Project. While the exact benefits to future storm responses are not yet known, anticipated improvements include:

- AMI meters will be capable of sending an alarm during an interruption to service. This will notify the Company which specific customers are experiencing an outage. Conversely, and more relevant to the Fiona restoration, as restoration work progresses, the Company will know which specific customers have had their service restored and which remain without service.
- The CIS solution will come with an outage system that will receive information from the AMI system regarding which meters are without power and possibly make suggestions on where the issue originated.
- It is likely that customer data provided by AMI meters will enable enhanced outage communication such as proactive alerts and timely restoration notifications, and an enhanced customer outage map based on real-time meter status.

IR-2 Will the new CIS/AMI system include a geographic information system?

Response:

The new CIS/AMI system will integrate with the Company's existing geographic information system.

IR-3 MECL states that implementation of radio frequency (RF) meters began in 2005.

a. When was installation of all RF meters complete?

b. Are the RF meters at the end of their useful life?

c. Are the RF meters fully depreciated?

d. If the RF meters are not fully depreciated, what is the forecast depreciation expense and how does MECL propose to recover this expense?

e. Is there a decommissioning cost associated with replacing RF meters with smart meters? If yes, what is the forecast decommissioning cost and how does MECL propose to recover this cost?

Response:

a. Installation began in 2003 and was considered complete in 2013, at which point 98 per cent of active meters were RF meters. The electromechanical meters still in service in 2013 were general service meters with demand measurement capabilities. These were phased out before the end of 2015.

b. No, the stated life expectancy of the RF meters was 15 years, so not all RF meters have reached end of life.

c. No, the RF meters are not fully depreciated.

d. Unrecovered costs for RF meters at the end of 2022 was $3.5 million, which was approximately 56 per cent of the original cost. In accordance with utility industry accounting procedures, or good utility practice, any unrecovered or over-recovered balance when an asset is removed from service, the variance is added to the new asset pool in the next depreciation study and recovered over the useful life of the asset pool.

e. Yes, there is a retirement cost associated with removing existing meters, which will be charged as a retirement expense to the meter installations account. As with the associated assets, any over or under recovery would be added to the asset pool and addressed over the useful life of the asset pool through prospective depreciation rates.

IR-4 At page 7 of the Application, MECL states that when RF meters were implemented, the number of meter department staff was reduced from twenty to six. Does MECL anticipate a further reduction in meter department staff if AMI is implemented? If no, please explain. If yes, please estimate the annual cost savings.

Response:

THE RESPONSE TO IR-4 HAS BEEN FILED
WITH THE COMMISSION ON A CONFIDENTIAL BASIS.

IR-5 At page 9 of the Application, MECL states that time-of-use rates and other innovative rate structures will make infrastructure investments and capacity costs associated with electrification "*more manageable*". Please quantify the cost savings and avoided costs if AMI technology is implemented.

Response:

Innovative rate structures have the potential to make infrastructure investments and capacity costs associated with electrification "more manageable" by incentivizing customers to shift electricity usage from typical peak times to non-peak times. Innovative rate structures are a type of demand side management ("DSM") and the PEI Energy Corporation, which is responsible for DSM in PEI, has identified the lack of an AMI and compatible billing system as a limiting factor in their demand response strategy.[1]

It is difficult to accurately quantify the cost savings and avoided costs associated with the implementation of innovative rate structures if AMI technology is implemented. To quantify these savings would require two components, the total demand savings in megawatts ("MW") associated with the innovative rates and a cost per MW for the increases in demand.

Maritime Electric's peak demand was unchanged in 2021 and then increased by 13 per cent in 2022 and 22 per cent in 2023. These significant increases in peak demand are a result of a number of contributing factors, including population growth, the electrification of space heating, and several mild winters followed by an extreme cold event in 2023. While the Company does not expect to see extreme cold events such as experienced in February 2023 every year, population growth and electrification are both expected to continue.

Calculating the cost per MW for increases in demand requires including costs for additional generation, transmission, transformation devices, and distribution system costs. Each MW of demand added to the system would result in different system improvements to accommodate the increase. Although it is difficult to determine the costs associated with each incremental MW of demand, the overall impact of demand-related costs are known and they are considerable. In 2020, demand related costs accounted for 35 per cent of Maritime Electric's overall revenue requirement.[2]

The total demand savings associated with innovative rate structures would depend on the aggressiveness of the rate structures or the types of incentives that are enacted to reduce overall demand. The actual cost savings associated with these demand savings could be considerable but cannot be quantified at this time.

---

1 PEI Energy Corporation Electricity Efficiency and Conservation Plan - Appendix A – 2022-23 to 2024-25 Electricity Efficiency and Conservation Plan, Page 26.

2 Based on the 2020 Cost Allocation Study completed by Chymko.

IR-6 Refer to Table 3 at page 16 of the Application.

a. What is the "Owners Engineer" line item and how is it calculated? Please provide all supporting data and assumptions.

b. What is the "Maintenance During Project" line item and how is it calculated? Please provide all supporting data and assumptions.

Response:

a. The Owners Engineer line item is to allow Maritime Electric to engage a third-party consulting firm to provide implementation services. TMG Consulting, Inc. ("TMG") planned for two directly assigned consultants to work approximately 100 per cent during the 36-month project at a rate of $175 per hour, and one senior consultant to work 25 per cent during the 36-month project at a rate of $200 per hour. For the purposes of the supplemental budget request application ("Application") the Owners Engineer hours were spread out over four years. A breakdown of the Owners Engineer cost is shown in Table 1.

TABLE 1
Owners Engineer Cost Breakdown

	2023	2024	2025	2026	Total
Owners Engineer - Consultant					
Hours	1,175	3,610	3,675	3,325	11,785
Cost	$ 205,625	$ 631,750	$ 643,125	$ 581,875	$2,062,375
Owners Engineer - Senior Consultant					
Hours	150	450	460	425	1485
Costs	30,000	90,000	92,000	85,000	297,000
Subtotal	235,625	721,750	735,125	666,875	2,359,375
Expenses (10 per cent)	23,563	72,175	73,513	66,688	235,938
Total	**259,188**	**793,925**	**808,638**	**733,563**	**2,595,313**
Adjustment	813	1,075	1,363	1,438	-
Owners Engineer Total Cost	**$ 260,000**	**$ 795,000**	**$ 810,000**	**$ 735,000**	**$2,600,000**

b. Maintenance During Project includes software maintenance calculated as 24 per cent per year of the purchase price of a perpetual license, and infrastructure maintenance costs calculated as 10 per cent per year of the purchase price of the on-premise infrastructure/hardware. These maintenance costs are properly capitalized during the Project period. A breakdown of the Maintenance During Project cost is shown in Table 2.

TABLE 2 Maintenance During Project Cost Breakdown		
	Software	**Infrastructure/Hardware**
Total Costs	$ 2,470,000	$ 215,000
Annual Maintenance	24 per cent	10 per cent
Annual Maintenance Costs	$ 592,800	$ 21,500
Number of Years of Maintenance Costs	3	3
Maintenance Costs Subtotal	$ 1,778,400	$ 64,500
Total Maintenance Costs	**$ 1,842,900**	
Maintenance Costs Normalized over 4 years	$ 460,725	
Rounding/Inflation Adjustment	$ 9,275	

IR-7 Based on the Application, the vendors for the CIS and AMI projects have not yet been selected.

a. Has MECL obtained quotes from potential vendors?

b. If not, has MECL taken steps to have the reasonableness of its estimates verified by potential vendors?

c. In the event the total Project costs exceed the budgeted amounts (including contingencies), what proportion of the over-spend will be paid by MECL and what proportion will be paid by ratepayers?

d. Is MECL prepared to share in any cost overruns with ratepayers?

Response:

a. Yes, Maritime Electric has obtained proposals from four CIS vendors and two AMI vendors. The Company is currently evaluating these proposals to ensure they meet the request for proposal ("RFP") requirements.

b. No response is required based on the response to IR-7a.

c. 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.

d. No. To the extent that actual costs incurred are reasonable and prudent, and the systems that are put in place are used and useful, the total cost of the project should be recovered from ratepayers.

IR-8 What is the cost per customer of the CIS/AMI Project? What is the average cost per customer for other comparable projects undertaken by other utilities?

Response:

**THE RESPONSE TO IR-8 HAS BEEN FILED
WITH THE COMMISSION ON A CONFIDENTIAL BASIS.**

IR-9 How will the CIS/AMI Project benefit customers?

Response:

The existing 34-year-old CIS is a critical component to many of Maritime Electric's core business functions and any interruption in operation could severely impact the Company's ability to provide service. The replacement of the CIS is justified based on the age and technological obsolescence of the software, which is now difficult to modify, maintain and support.

The current capabilities of the CIS is also a limiting factor in the Company's ability to move to an AMI system. By replacing both systems, the Company will ensure that the new CIS system is designed to handle the increased amount of data available through an AMI system and the AMI system will be designed to work well with the CIS system. The primary benefit of the CIS replacement is the elimination of the business risk in continuing to operate a system that has reached end of life.

Beyond the risks of operating the CIS beyond end of life, there are many other benefits that will result from the Project. Many of these have been listed in the Application and additional benefits were listed in Appendix A - TMG Report and Appendix B - Util-Assist Report. A summary of the most impactful benefits, which have been separated into initial benefits (i.e., available upon project completion), near-term benefits (i.e., available within two to four years of project completion), and potential future benefits (i.e., optional benefits available at some time in the future) follows.

CIS

Initial Benefits

i. Superior customer experience and service including initiative-taking outreach and multiple communication channels;
ii. Standardization and optimization of processes, structure, methods, and rules across departments, workgroups and staff; and
iii. Increased operational efficiencies through reduced training time for call centre employees and an improved ability to retain staff as employees will be attracted to learn and work on a state-of-the-art system (that is more fulfilling and enjoyable from a personal and professional perspective).

Near-Term Benefits

iv. Ability and agility to accommodate future products, programs, and services that Maritime Electric customers may come to expect. This will allow the Company to continue to provide improved customer service well into the future;
v. Operational efficiency through business-side configuration changes, as opposed to Information Technology ("IT")-side programming changes; and
vi. Increased access to support through the available labour pool for a vendor provided CIS, which is broad and deep (i.e., with multiple vendors and technology that is current and utilized across multiple industries and many utilities).

Potential Future Benefits

vii. CIS becomes "future proof" through regular base-product upgrades that leverage the collective needs of many utilities using the software system. As the industry evolves, the CIS will also evolve.

AMI

Initial Benefits

i. Access to information that will better serve customers, such as delivered voltage levels, as the Company will be able to remotely monitor each meter in almost real time along with its associated hourly or sub-hourly historic data;
ii. Remote meter reading and connect/disconnect capability, significantly reducing labour and travel costs associated with these activities and increasing the speed at which the Company can complete these activities;
iii. Capability to process over-the-air updates, allowing meters to remain up-to-date without significantly impacting resource requirements; and
iv. Receive alerts and alarms from the AMI meter to notify the Company about power quality or outage issues, with the latter providing customer connection status information during a system outage event which has the potential to provide better customer service and improve restoration times.

Near-Term Benefits

v. Increased reliability through advanced analytics by identifying or predicting system issues such as transformer overloading, and contributing to load forecasting, capacity planning and demand management; and
vi. Operational cost savings through conservation voltage reduction, which reduces energy consumption and demand by dynamically optimizing voltage levels throughout the system automatically, based on real-time data analytics.

Potential Future Benefits

vii. Increase customer service by providing disaggregation of customer load through analyzing the specific signature of appliances connected behind the meter and helping to locate inefficiencies, predict equipment failures, and identify phantom loads;
viii. Improve system efficiency and reliability through the use of digital twin virtual models to help gain real-time and predictive insights on performance of assets, including better integration of distributed energy resources;
ix. Provide further DSM savings by communicating with customer home area network devices through a field area network, which could enable future control and management of customer-owned devices such as water heaters or electric vehicle chargers; and
x. Increase system reliability through the increased use of distribution system automation.

There are also some benefits which cannot be attributed directly to CIS or AMI, which will result from the combination of both upgrades.

Combined Benefits

i. Enhanced customer service and self-service, through access to detailed account information and the ability to access their consumption data and see the results of their conservation efforts on a much more timely and granular level than today;
ii. Increased customer service through the ability to provide customer notifications, such as up-to-date information prior to or during power outages, which could include details such as expected outage duration and cause; and
iii. Opportunity to introduce innovative rate structures such as time-of-use rates, which would provide customers with incentive to shift their consumption from peak to off-peak periods, thereby potentially avoiding capital investment to accommodate higher peak loads.

IR-10 Has MECL researched the appropriateness and potential cost savings associated with using the same CIS utilized by other Fortis-owned utilities? If yes, please provide the results of the research, including particulars of forecast cost savings. If MECL has not performed this research, please explain why.

Response:

Maritime Electric consulted with other Fortis-owned utilities regarding their current CIS platforms. Two of these utilities were in the process of implementing a modern CIS platform which resembled Maritime Electric's requirements. The remainder of these utilities are planning to replace their CIS platforms in the foreseeable future. As a result of these consultations, the RFP for the Project's CIS component was issued to a specific vendor which was common amongst the group. That vendor decided to not submit a proposal based upon the proposed budget.

IR-11 Refer to Table 5 at page 26 of the Application. Is the funding from Natural Resources Canada included in rate base?

Response:

THE RESPONSE TO IR-11 HAS BEEN FILED WITH THE COMMISSION ON A CONFIDENTIAL BASIS.

IR-12 Please provide a breakdown of the estimated ongoing annual operating costs expected after the projects are completed.

Response:

The Company is still considering vendor proposals and each proposal presents different strategies to deliver the required solution. For this reason, a final breakdown of the ongoing annual operating costs cannot be provided at this time. The operating expense estimates for the first five years following Project completion that were provided by TMG and Util-Assist, in their respective reports are shown in Table 3, as an indication of anticipated annual operating costs.

TABLE 3
Expected Annual Operating Costs

Item	2027	2028	2029	2030	2031
CIS Annual Maintenance Fees	$ 614,300	$ 614,300	$ 614,300	$ 614,300	$ 614,300
AMI Annual Maintenance Fees	201,422	201,422	201,422	201,422	201,422
Maritime Electric Labour	606,720	618,854	631,231	643,856	656,733
TOTAL	**$ 1,422,442**	**$ 1,434,576**	**$ 1,446,954**	**$ 1,459,578**	**$ 1,472,455**

IR-13 Under both projects, MECL indicated the need to hire additional staff to manage and run these capital projects. Will these positions continue after the projects have been completed and have they been included in IR#11 as ongoing annual operating costs?

Response:

The Company has identified existing employees to manage and run the Project and has either hired or will hire new employees to fill the vacant positions of the reassigned employees. This will ensure that the transition to new CIS and AMI solutions, which is integral to Company operations, is being implemented by experienced and knowledgeable staff.

Replacement employees have already been hired or will be hired on a term basis where possible; however, as the reassigned employees held key positions within the organization, it is important that the vacant positions are filled with qualified individuals. Recent experience has shown that the current labour shortage has made it difficult to hire qualified individuals for term placements. Given this situation, the Company will assess its current workforce to determine if it is reasonable to hire replacements on a permanent basis, considering the expected attrition and forecast labour needs specifically within the impacted area of the Company. This approach is consistent with past and current practice, as the Company continually analyzes its workforce to determine its ability to meet present and future needs of the organization and to make ongoing resource planning decisions.

The Company has identified several new positions that will be required following completion of the Project, which are described in the response to IR-4. As indicated in the IR-4 response, the associated additional costs have been included in the financial analysis included in the Application and the estimated costs of these additional positions are shown in Table 3 of the Company's response to IR-12.

Funding from Natural Resources Canada

IR-14 MECL sought funding from Natural Resources Canada (NRCan) based on a total estimated project cost of $43 million. The project cost has now increased to $47,585,000.

a. Please explain the reason for the increase.

b. What efforts has MECL made to increase the Government funding in light of the increased project costs?

Response:

**THE RESPONSE TO IR-14 HAS BEEN FILED
WITH THE COMMISSION ON A CONFIDENTIAL BASIS.**

IR-15 What is the status of the contribution agreement with NRCan?

Response:

THE RESPONSE TO IR-15 HAS BEEN FILED WITH THE COMMISSION ON A CONFIDENTIAL BASIS.

IR-16 The Project received conditional funding approval from NRCan on March 22, 2022. At that time, MECL was advised that the funds would need to be used within a three year period. In the Application, MECL states that the NRCan funds "*must be used by March 31, 2025 and any Project costs after that date are not eligible for reimbursement*".

a. The availability of funding is time-limited and time-sensitive. Although MECL received conditional funding approval in March 2022, this Application was not filed until November 25, 2022. Please explain the reason for the delay in filing.

b. What steps has MECL taken, or does it intend to take, to ensure the full amount of the NRCan funding is utilized by March 31, 2025?

c. How will MECL fund the Project in the event the full amount of the NRCan funding cannot be utilized due to Project delays?

Response:

THE RESPONSE TO IR-16 HAS BEEN FILED WITH THE COMMISSION ON A CONFIDENTIAL BASIS.

TMG Consulting Report

IR-17 In Section 9.5 at page 56, TMG states that 15.25 resources will be dedicated to the CIS Project. The blended hourly rate is $143/hour and the total fees/labour costs is $12.2 million.

a. Please provide support for the hourly rate of $143.

b. An hourly rate of $143 equals an annual salary of $278,850 based on a 37.5 hour work week. Is MECL proposing to pay each resource an annual salary of $278,850? If no, please explain. If yes, please provide justification.

Response:

a. Support for the hourly rate of $143 is shown in Table 4. The CIS implementation resourcing budget was generated by TMG and this information was used to form Section 9.5 at page 56 of the TMG Report. The blended rate uses the total Maritime Electric and external resources labour costs of $12,202,080 and divides it by the total project work hours of 85,286 to calculate an average rate of $143.07.

TABLE 4
Implementation Resourcing Breakdown

	Year 1 FTE[3] A	Year 2 FTE B	Year 3 FTE C	Hourly Rate ($/hr) D	Total Workhours E = (A+B+C)*1920	Total Estimated Labour Cost F = D*E	Equivalent Annual Cost per Employee[4]
External Resources							
Vendor Staff	7.21	7.21	5.25	$ 175.00	37,766	$ 6,609,120	$ 336,000
Consultants	2.00	2.00	2.00	175.00	11,520	2,016,000	336,000
Quality Assurance	0.25	0.25	0.25	200.00	1,440	288,000	384,000
Maritime Electric Resources							
Project Leads	3.00	3.00	3.00	115.00	17,280	1,987,200	220,800
Testers	2.00	2.00	2.00	68.00	11,520	783,360	130,560
Subject Matter Experts	1.00	1.00	1.00	90.00	5,760	518,400	172,800
Total	**15.46**	**15.46**	**13.50**		**85,286**	**$ 12,202,080**	**$ 274,698**

b. Table 4 reflects TMG's recommendations concerning the number of resources required to successfully implement a new CIS, estimated to be 15.46 full-time equivalent ("FTE") positions in years one and two, and 13.50 FTE positions in year three. These positions are comprised of: resources that will be provided by the selected vendor; consultant and quality assurance resources provided by TMG; and resources provided by Maritime Electric.

[3] Total work hours: 40 hours per week or 160 hours per month times 12 months = 1,920 hours per year.
[4] The annual cost per employee includes the employee salary, employee benefits and payroll overhead to provide the all-in cost for each employee.

The estimated hourly rates for the externally provided resources were provided by TMG based on past experience. The hourly rates for the required Maritime Electric resources are based on current costs associated with employees that have the expertise recommended by TMG. For example, the Maritime Electric project leads will be senior information technology staff with the required experience to successfully lead complex and critical projects.

The estimated labour costs in Table 4 are justified on the basis that the implementation of a new CIS is a complex project that is critical to many of Maritime Electric's core business functions. The assignment of appropriate labour resources will help ensure a successful implementation and avoid costly fixes during the final stages of the Project.

IR-18 Are the CIS Project costs used in the Application consistent with the TMG Report? Please explain and provide justification for any variances between the costs budgeted by TMG and the costs included in the Application.

Response:

The costs used in the Application are based on the costs provided by TMG and summarized in Section 9.7, Fiscal Year and CAPX vs OPEX Components, of the TMG Report. These costs are summarized in Table 5.[5]

TABLE 5
Summary of Costs from Section 9.7 of TMG Report

	Year 1	Year 2	Year 3	Year 4	Total
Implementation CAPX	$ 5,410,010	$ 4,819,534	$ 4,676,734	$ 1,770,139	$ 16,676,417
Implementation OPEX	462,981	793,682	768,482	288,701	2,313,846
Maintenance CAPX	347,284	595,345	595,345	248,060	1,786,034
TOTAL	**$ 6,220,275**	**$ 6,208,561**	**$ 6,040,561**	**$ 2,306,900**	**$ 20,776,297**

The TMG Report and estimated costs were completed in November 2021. The Application was prepared in the fall of 2022 and it was assumed that the Project would not begin until mid-2023 rather than 2022 as assumed in the TMG Report. As such, the Project timeline was adjusted and the costs were escalated for inflation by 2.5 per cent, as shown in Table 6.

TABLE 6
Revised Timeline Summary of Costs from Section 9.7 of TMG Report

	2023	2024	2025	2026	Total
Year 1 Costs Split Between 2023/24	$ 3,110,137	$ 3,110,138	$ -	$ -	$ 6,220,275
Year 2 Costs Split Between 2024/25	-	3,104,280	3,104,281	-	6,208,561
Year 3 Costs Split Between 2025/26	-	-	3,020,281	3,020,280	6,040,561
Year 4 Costs to 2026	-	-	-	2,306,900	2,306,900
Escalation of 2.5% per year to reflect revised timeline	77,753	235,059	232,661	210,574	756,047
Rounding adjustment	2,110	523	(2,223)	2,246	2,656
TOTAL	**$ 3,190,000**	**$ 6,450,000**	**$ 6,355,000**	**$ 5,540,000**	**$ 21,535,000**

[5] CAPX refers to the portion of costs that will be capitalized and OPEX refers to the portion of costs that will be operating costs.

IR-19 In Section 9.6 at page 57, TMG projects MECL internal labour costs for the CIS Project to be $3.6 million. Please provide further information and support for the projected internal labour costs.

Response:

Referring to the implementation resourcing breakdown provided in Table 4 of the response to IR-17a, Maritime Electric has separated its internal labour costs for the CIS component into three separate categories: Project Leads, Testers, and Subject Matter Experts. Project Leads refers to senior Maritime Electric employees taking on senior roles within the Project. Testers refers to technical staff tasked with configuring, importing data and programming required for the new CIS. Subject Matter Experts refers to key employees from Company departments (e.g., finance, operations, customer service, etc.) tasked with ensuring the new CIS system functions well with existing operations.

The total of these three Maritime Electric labour costs is $3.3 million.[6]

[6] The $3.6 million in Maritime Electric internal labour costs indicated in Section 9.6 at page 57 of the TMG Report also included additional costs of $165,000 and $105,000 for Executive project oversight and expenses, respectively.

IR-20 In Sections 9.9 to 9.12 at pages 59-60, TMG calculates the total annual benefit of the CIS replacement to be $1,899,026. The annual benefit consists of:

- A $570,000 per year reduction in existing expenditures (Hard Dollar Cost Reduction);
- A $190,000 per year benefit for the time value of money and increased revenues (Hard Dollar Revenue Enhancement); and
- A $1,139,146 per year avoidance of additional expenditures (Soft Dollar Cost Avoidance).

How will MECL achieve these annual benefits? The response must include particulars of the existing expenditures that will be reduced and avoided on an annual basis, including the cost/benefit of each.

Response:

The total annual benefit of the CIS replacement calculated by TMG is a generalization based on its experience assisting clients with the implementation of a new CIS. It is TMG's experience that its clients have realized cost savings and/or cost avoidance of up to 10 per cent of their implementation costs. Therefore, based on an estimated Maritime Electric implementation cost of $19 million, TMG's Report indicates that the Company's potential annual costs saving and/or cost avoidance could be up to $1.9 million.

Also, based on TMG's client experiences, the potential annual cost saving/avoidance of $1.9 million was divided into three general categories: (i) 30 per cent, or $570,000, could result from an annual reduction in existing expenditures (i.e., hard dollar costs reduction); (ii) 10 per cent, or $190,000, could result from increased revenues and the time value of money (i.e., hard dollar revenue enhancement); and (iii) 60 per cent, or $1.1 million, could result from the avoidance of additional expenditures (i.e., soft dollar cost avoidance).

Additional descriptions of significant benefits achieved by other organizations that have implemented a new CIS are provided in Table 7.

TABLE 7 Breakdown of Significant Benefits				
Benefit	**Hard Cost Reduction (30%)**	**Hard Revenue Enhancement (10%)**	**Soft Cost Avoidance (60%)**	**Benefit Description**
1. Customer Satisfaction	Yes	-	Yes	Ability to provide superior customer experience and service in the way customers expect including proactive outreach and multiple communication channels.
2. New Products and Services	-	Yes	-	Ability and agility to accommodate future products, programs, and services that Maritime Electric customers may come to expect and are receiving from other service providers in their daily lives.
3. Business Efficiency	-	-	Yes	1) Reduced training time for call center employees. 2) Provides the opportunity to optimize processes, structure, methods, and rules across departments, workgroups and staff.
4. Business Configurable Solution	Yes	-	Yes	Increases agility and efficiency through business-side configuration changes, as opposed to IT-side programming changes.
5. Employee Satisfaction	-	-	Yes	Employees will be attracted to learn and work on a state-of-the-art system which is more fulfilling and enjoyable from a personal and professional perspective.
6. Availability of Support Services	Yes	-	Yes	Available labour pool for vendor provided CIS is broad and deep, with support from multiple vendors and technology that is current and utilized across multiple industries and many utilities.
7. Productized Solution	Yes	-	Yes	CIS becomes “future proof” through regular base product upgrades that leverage the collective needs of many utilities that utilize the Commercial Off The Shelf (“COTS”) system. As the industry evolves, so too will Maritime Electric’s CIS.

Util-Assist Report

IR-21 Util-Assist refers to a business case model and a comprehensive financial model in Excel format. Please provide a copy of the Excel(s) in native/workable form.

Response:

THIS RESPONSE TO IR-21 HAS BEEN FILED WITH THE COMMISSION ON A CONFIDENTIAL BASIS.

IR-22 Util-Assist states that, overall, the AMI project is not cost effective.

a. Did Util-Assist include the funding from NRCan in its analysis?

b. What impact does the NRCan funding have on the cost-effectiveness of the AMI project?

Response:

THE RESPONSE TO IR-22 HAS BEEN FILED
WITH THE COMMISSION ON A CONFIDENTIAL BASIS.

IR-23 What customer data will be collected by MECL if AMI is implemented?

Response:

If AMI is implemented, Maritime Electric will collect customer energy usage data more frequently. Currently, energy usage data is recorded and collected once per month. With AMI technology, energy usage data will be recorded within the meter at the chosen frequency and then collected by the Company between two and four times per day.[7]

In addition, a number of notifications will be received from the smart meter, such as power outage/restoration notification, tamper alerts and disconnect switch events (i.e., when power is remotely connected or disconnected). AMI technology will also allow access to advanced data, such as voltage, which will provide additional information on system health and allow the Company to operate and maintain the system more effectively. At no point will identifiable personal information be stored in or transmitted by the meter.

[7] A final determination has not been reached on meter data interval frequency but it is assumed to be 15-minute intervals at this point. Refer to the response to IR-24 for further details.

IR-24 What frequency of meter reading is MECL proposing and why?

Response:

Maritime Electric has not made a final determination on meter data interval frequency.

Both vendor proposals received assume a 15-minute data interval but are capable of providing more granular data; however, it is likely that intervals would not be less than five minutes or more than one hour. The final decision will be a balance between the additional data transmitting and storage costs and ensuring the data provides adequate granularity to meet the Company's needs into the future.

IR-25 Util-Assist notes the importance of protecting customer data and privacy once AMI is implemented. What policies and procedures does MECL have in place, or plan to have in place, to protect customer data and privacy once AMI is implemented?

Response:

Maritime Electric places a great deal of importance on information systems security and protecting customer and corporate data. As such, Maritime Electric has an existing Cybersecurity Policy to help protect the Company's IT network and a separate Information and Privacy Policy to protect customer's private information. Once vendors are chosen for both the CIS and AMI and the Project progresses, policy and work processes will be reviewed and updated as necessary to ensure that data security is maintained. At a minimum, no AMI data will contain identifiable personal information, as data will only be associated with meter numbers or account numbers.

IR-26 Will MECL customers have the option to opt-out of smart meters? How does MECL intend to handle opt-out requests?

Response:

Maritime Electric is presently considering the need for a smart meter opt-out policy. Having an opt-out policy can influence customer decisions regarding AMI adoption. Customers who are undecided on the merits of AMI are more likely to opt out if there are no cost implications. The Company will continue to consider an opt-out policy, leaning on the successful AMI vendor and Util-Assist for guidance.

It is relevant to note that when Maritime Electric converted to RF meters from mechanical meters, only six customers opted out of the upgrade.

IR-27 Section 5.2, Table 8 provides a Comparison of AMI Business Cases. Please explain why both the Nova Scotia Power and New Brunswick Power All-in Cost per Meter is considerably lower than MECL's anticipated cost per meter.

Response:

THE RESPONSE TO IR-22 HAS BEEN FILED
WITH THE COMMISSION ON A CONFIDENTIAL BASIS.