

All our energy.  
All the time.



October 20, 2023

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

Dear Ms. Mosher:

**Supplemental Capital Budget Request  
Advanced Metering for Sustainable Electrification Project – Docket 20737  
Response to Additional Interrogatories from Commission Staff**

Please find attached the Company's responses to additional interrogatories from Commission Staff with respect to the Advanced Metering for Sustainable Electrification Project received on September 7, 2023.

Yours truly,

MARITIME ELECTRIC

A handwritten signature in blue ink that reads 'Gloria Crockett'.

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

GCC29  
Enclosure



# **ADDITIONAL INTERROGATORIES**

**Responses to Questions  
of  
Commission Staff**

**SCBR - Advanced Metering for Sustainable  
Electrification Project Application  
(UE20737)**

**Submitted October 20, 2023**

**Additional Interrogatories  
SCBR – Customer Information System and  
Advanced Metering Infrastructure Project – UE20737  
from Commission Staff – September 7, 2023**

**Maritime Electric**

IR-28 Please provide a copy of the signed contribution agreement with Natural Resources Canada.

***Response:***

**A COPY OF THE SIGNED CONTRIBUTION AGREEMENT WITH NATURAL RESOURCES CANADA HAS BEEN FILED WITH THE COMMISSION ON A CONFIDENTIAL BASIS.**

**Additional Interrogatories  
SCBR – Customer Information System and  
Advanced Metering Infrastructure Project – UE20737  
from Commission Staff – September 7, 2023**

**Maritime Electric**

IR-29 Refer to MECL's response to IR-3(e). What is the forecast retirement cost associated with removing existing meters?

***Response:***

A high-level forecast of the retirement costs associated with removing existing meters is approximately \$200,000.

It should be noted that Maritime Electric follows the grouped asset, straight-line method of depreciation using average service life procedures.<sup>1</sup> Therefore, the depreciation expense recovered from customers includes the cost of the asset over its useful life and an estimate of its future cost of removal. The recovery of this estimate of the future cost of removal is recorded as a credit to accumulated depreciation and as assets are removed from service, the incurred cost of removal is debited to accumulated depreciation. Any over or under recovery of the cost of removal will be adjusted in the next depreciation study, as is normal practice.

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<sup>1</sup> This approach is described on page I-3, in the Basis of Study section of the 2020 Depreciation Study prepared by Gannett and Fleming, and filed with the Commission on July 29, 2021, in accordance with Commission Order UE19-08.

**Additional Interrogatories  
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**Maritime Electric**

IR-30 MECL’s response to IR-12 provided a breakdown of the estimated ongoing annual operating costs expected after the projects are completed.

- a. Does this breakdown include the increased amortization expense related to the project? If not, how does the amortisation impact the annual costs?
- b. What are the anticipated annual savings to MECL operating expenditures by implementing the CIS/AMI project?
- c. If the saving does not outweigh the increased costs, please provide justification to approve this project.

**Response:**

- a. The increased amortization expense related to the project were not included in the Table 3 – Expected Annual Operating Costs, included in the response to Commission IR-12. See Table 9 for an expanded version of the table including amortization, funding and income tax change.

<b>TABLE 9 Expected Annual Operating Costs</b>					
<b>Item</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>	<b>2030</b>	<b>2031</b>
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
CIS Incremental Amortization Expense	433,042	999,753	999,753	999,753	999,753
AMI Incremental Amortization Expense – Old System and Meters	591,000	591,000	591,000	591,000	591,000
AMI Incremental Amortization Expense – New System and Meters	659,075	1,318,150	1,318,150	1,318,150	1,318,150
Natural Resources Canada Funding	(475,000)	(950,000)	(950,000)	(950,000)	(950,000)
Income Tax Expense Change	(1,447,356)	(2,186,340)	(2,189,102)	(2,191,919)	(2,194,792)
<b>TOTAL</b>	<b>\$ 1,422,442</b>	<b>\$ 1,434,576</b>	<b>\$ 1,446,954</b>	<b>\$ 1,459,578</b>	<b>\$1,472,455</b>

- b. The anticipated savings from the CIS component are largely related to efficiencies and cost avoidances. These are referred to as Soft Dollar Cost Avoidances.<sup>2</sup> As such, they are subjective to quantify in monetary terms. From the TMG Report, “Historically, when a utility engages in detailed CIS benefit analysis, the recurring benefit dollars are 7% to 10% of the cost to implement the new CIS solution.” Since the project will require additional staffing resources, these additional costs will be greater than the potential soft dollar cost avoidances and savings, and not result in annual saving in operating expenditures.

<sup>2</sup> See Section 9.9 of the TMG Report, 2022 Digital Solution Roadmap Project Report Summary.

**Maritime Electric**

*CIS*

The replacement of the existing CIS is necessary based on the age and technological obsolescence of the software. The legacy CIS is critical to many of Maritime Electric's core business functions and any interruption in operation could severely impact the Company's ability to provide service.

Beyond the risks of operating the CIS past end of life, TMG has provided a generalized estimate based on past experience, indicating that utilities that have upgraded or replaced their CIS have, on average saved approximately 10 per cent of their implementation costs. The method for calculating these savings is provided in sections 9.9 to 9.11 of the TMG report and again in Maritime Electric's response to Commission IR-20.<sup>3</sup> Applying this methodology to Maritime Electric, TMG projects a savings of up to \$1.9 million in benefits with a new CIS.

*AMI*

The AMI component will provide broad benefits across the utility. These benefits include operational savings, increased reliability, improved safety, enhanced customer service and new customer engagement opportunities. While some of the expected benefits are not quantifiable, Util-Assist did provide a summary of the quantifiable benefits in section 5.3.1 of its report.<sup>4</sup> The business case presented within the Util-Assist report forecasts a negative \$3.9 million business case, before consideration of Federal Government funding.

- c. As indicated in the 2022 Supplemental Capital Budget Request – Advanced Metering for Sustainable Electrification Project (“Application”), approval of the project is justified on the following basis.

*CIS*

The replacement of the CIS is primarily justified based on the age and technological obsolescence of the software which is now difficult to modify, maintain and support. Where minor enhancements to legacy systems are time consuming and cost prohibitive, software based on new technologies and more open architecture are platform independent and, as such, are easier to use, customize and maintain. The legacy CIS is also limited in its ability to accommodate programming changes that involve processing large amounts of data and is increasingly vulnerable to data privacy and cybersecurity breaches. In addition, the CIS is highly reliant on a limited number of long-serving Information Technology Department staff who will be difficult to replace if there is an ongoing need to support and maintain the CIS software.

*AMI*

Conversion to AMI is primarily justified on the need to alter customer consumption patterns in a way that will shift load to off-peak periods, and to generate and collect the customer usage data that will be needed to accurately bill customers based on the amount and timing of their energy consumption. Without the ability to incent load shifting from peak to off-peak periods, there is significant potential for peak load growth to drive system infrastructure and capacity costs well beyond where they could otherwise be, over a relatively short timeframe. Other justifications include benefits to the utility and its

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<sup>3</sup> The TMG report is in Exhibit M-1 and the response to Commission IR-20 is in Exhibit M-2(a).

<sup>4</sup> The Util-Assist report is in Exhibit M-1.

**Additional Interrogatories  
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**Maritime Electric**

customers, such as more informative customer service and customer self-service capabilities, remote connection and disconnection of customers, and two-way communications with customer meters to provide connection status and options for customer load management. The added consideration of the Federal Government funding completes the justification as this component now has a positive business case analysis.

**Additional Interrogatories  
SCBR – Customer Information System and  
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**Maritime Electric**

IR-31 Refer to MECL's response to IR-17(a), Table 4. MECL has calculated the annual cost per employee for external resources to be \$336,000 to \$384,000.

- a. Is this the least cost option?
- b. What is the market rate for individuals with this skill set?
- c. What steps has MECL taken to minimize external labour costs associated with the project?

***Response:***

- a. On an hourly or annual salary basis, the Company could retain resources at a lower hourly rate but those resources would also have less experience. Considering the complexity of this project, the risk exists that something could go wrong with the implementation, and correcting an issue is much more expensive than preventing the issue from occurring in the first place. Therefore, the Company believes that the external resources it plans to engage is the least cost option.

When considering the project scope and the specialized skill set required to execute a project of this nature effectively, the Company recognized that it required guidance from a consultant with experience executing similar projects. Recognizing this, Maritime Electric applied to the Commission and was granted permission to retain TMG as a subject matter expert to help the Company define its CIS requirements, identify potential solutions, develop a business case, and provide a plan for migrating to a new CIS system. Since this initial assessment Maritime Electric has benefitted from TMG's experience.

It is common practice to hire consultants with the necessary skill set to guide companies through specialized projects. Consultants typically have higher rates than internal staff. Higher rates are justified based on the experience and expertise of the consultant. TMG provides access to a team with experience across the industry. They have direct experience with CIS project needs, help fill capability gaps and they are able to increase and decrease support as required throughout different project stages. TMG are also able to share lessons learned from past projects and share client contacts to help ensure the project is executed as smoothly as possible.

- b. An annual cost per employee for external resources ranges from \$336,000 to \$384,000, as indicated in Table 4 of the response to IR-17(a), and corresponds to hourly rates of \$175 to \$200, respectively. As TMG operates across North America with a portfolio of approximately 300 clients and 600 projects, Maritime Electric believes that the rates charged by TMG are reasonable and competitive for a consultant with their experience and skill set.
- c. Maritime Electric has worked closely with TMG throughout the project to date; however, the Company has prioritized the use of internal resources wherever possible, to limit consultant labour costs.



**Additional Interrogatories  
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**Maritime Electric**

IR-32 Refer to MECL's response to IR-20. Provide specifics on how MECL will achieve the cost savings or cost avoidance of \$1,899,026. For example, specify the expenditures that will be reduced, how revenues will be increased, and the associated dollar amounts.

***Response:***

The annual benefit of the CIS replacement calculated by TMG is a generalization based on TMG's experience executing similar CIS implementation projects across North America. The potential cost savings of up to \$1.9 million has not been calculated using specific expenditures that will be reduced or using specific increased revenues. This generalized estimation is based on TMG's experience that past clients have realized cost savings and/or cost avoidances of up to 10 per cent of their implementation costs. Examples of potential sources of cost savings and/or cost avoidance have previously been provided in the Company's response to IR-20.

Furthermore, the justification of the CIS replacement is not based on future cost savings or cost avoidances. The justification of the CIS replacement is based on the business risk associated with continuing to operate the legacy CIS. 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. Continued reliance on the existing CIS would require ongoing investment to modernize the outdated and inflexible technology, and to secure and retain the staff resources needed to support an obsolete technology on an ongoing basis. Even with such a commitment, it is not practical or feasible to upgrade the legacy CIS to support new technologies such as AMI, rendering it functionally obsolete and forcing its replacement.

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**Maritime Electric**

IR-33 Please provide the justification, criteria and calculations used to allocate any funding contributions between the AMI and CIS components of the project.

***Response:***

The NRCan funding was applied for and received based on the assumption that the Advanced Metering for Sustainable Electrification Project was one complete project. With this in mind, the Company has prorated the funding based on total costs to the CIS and AMI portions of the overall project. Table 11 provides a breakdown of the funding.

<b>TABLE 11 NRCan Funding Breakdown</b>		
	<b>Project Costs</b>	<b>Funding Allocation</b>
Customer Information System	\$ 21,535,000	\$ 8,600,000
Advanced Metering Infrastructure	26,050,000	10,400,000
<b>TOTAL</b>	<b>\$ 47,585,000</b>	<b>\$ 19,000,000</b>