



Docket: UE20737
Order: UE24-06

CERTIFIED A TRUE COPY

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IN THE MATTER of an application made by Maritime Electric Company, Limited for the approval of a supplemental capital budget request for the Advanced Metering for Sustainable Electrification Project, pursuant to section 17 of the *Electric Power Act*, R.S.P.E.I. 1988, Cap. E-4.

Order

BEFORE THE COMMISSION ON Friday, the 4th day of October, 2024.

M. Douglas Clow, CPA, CA, Acting Chair
Kerri Carpenter, Commissioner

INTRODUCTION:

1. On November 25, 2022, Maritime Electric Company, Limited (“MECL”) filed an application with the Prince Edward Island Regulatory and Appeals Commission (the “Commission”) seeking approval of a supplemental capital budget request for the Advanced Metering for Sustainable Electrification Project (the “Project”).¹
2. The Project involves two separate, but related, components:
 - a. the replacement and upgrade of MECL’s existing customer information system (“CIS”); and
 - b. the replacement of MECL’s existing radio frequency meters with advanced metering infrastructure (“AMI”).
3. The total cost of the Project is forecast to be \$66,775,000.² The cost of the Project will be partially offset by \$19 million in funding from Natural Resources Canada’s *Smart Renewables and Electrification Pathways Program, Grid Modernization Stream* (the “NRCan funding”). As a result, the net cost of the Project, after deducting the NRCan funding, is forecast to be \$47,775,000. If approved, MECL seeks to recover the cost of the Project from its customers through the rates charged for electric service.

PROCEDURAL BACKGROUND:

4. MECL initially filed this Application in November 2022. At that time, MECL was required to keep the NRCan funding confidential, pending execution of a contribution agreement and a public announcement by the federal government. As a result, when MECL filed the Application in November 2022, it asked that any reference to the NRCan funding be kept confidential until such time as the contribution agreement was signed and the funding was publicly announced.
5. In accordance with the Commission’s *Rules of Practice and Procedure*, the Commission accepted MECL’s request for confidentiality. To ensure that the public had timely notice of the Application, an abridged version of the Application (which omitted any reference to the NRCan funding) was made publicly available on the Commission website.
6. Although the Application was filed in November 2022 and posted to the Commission website, the Commission was not prepared to proceed with the regulatory process until the NRCan funding was publicly disclosed. As will be discussed, the NRCan funding is material to the Application, including MECL’s business case. Open and transparent public consultation required that this information be disclosed and available to interested members of the public, including potential interveners, as part of the regulatory process.
7. The NRCan funding was ultimately announced on September 29, 2023, ten months after the Application was filed. On that same day, the Commission gave public notice of the Application on the Commission website, followed by notice in local newspapers.

¹ Exhibit M-1

² Exhibit M-10 at page 12, Table 1

8. Interested members of the public were invited to submit questions to MECL and written comments to the Commission. In the notice, the public was advised that a hearing would not be held unless the Commission determined it was necessary.
9. Following publication of the notice, questions were issued to MECL by interested members of the public, namely Eva Kovacic Lee and Roger King.³ The Commission also received public comments from five interested members of the public.⁴ All questions and comments were made publicly available on the Commission's website.
10. The Commission did not receive any requests for intervention with respect to the Application.
11. Commission staff issued interrogatories to MECL on May 30, 2023, September 7, 2023, and November 2, 2023.⁵ In the interrogatories issued in November 2023, MECL was asked to provide any firm estimates received from contractors, and to confirm that the estimates were consistent with the forecasts included in the November 2022 Application.⁶
12. In its response to these interrogatories, filed on December 18, 2023, MECL advised that the budget for the Project had increased from \$47.6 million to \$64 million.⁷ This represented an increase of \$16.4 million – or almost 35 percent – from the costs in the Application as filed.
13. On February 14, 2024, the Commission wrote to MECL expressing concern about the substantial cost increase, as well as material changes to certain components of the Project.⁸ MECL was directed to submit an amended and restated Application no later than March 15, 2024. A technical session was also scheduled for April 4, 2024.
14. On March 5, 2024, MECL's President and CEO, Jason Roberts, wrote to the Commission.⁹ Mr. Roberts advised that MECL was committed to providing the amended and restated Application by March 15, 2024, and to a full and transparent discussion at the technical session.
15. On March 13, 2024, Mr. Roberts wrote to the Commission requesting an extension of time to file the amended and restated Application, and asking that the technical session be rescheduled.¹⁰ In his letter, Mr. Roberts also advised that the NRCan funding deadline had been extended to March 2028.
16. MECL filed its amended and restated Application on April 16, 2024 (the "Amended Application").¹¹

³ Exhibits M-5 and M-6

⁴ Exhibits P-1 to P-7

⁵ Exhibits C-1 to C-3

⁶ Exhibit C-3, IR-34

⁷ Exhibit M-7, Response to IR-34

⁸ Exhibit C-4

⁹ Exhibit M-8

¹⁰ Exhibit M-9

¹¹ Exhibit M-10

17. On July 11, 2024, a technical session was held with respect to the Application. At the technical session, the Commission had the opportunity to ask clarifying questions of MECL and its independent consultants. The technical session was recorded and forms part of the record in this Application.¹²
18. Upon review of the Application, the Amended Application and the complete record, the Commission has determined that a public hearing is not necessary to make an informed decision with respect to this matter.

OVERVIEW OF THE APPLICATION:

19. The Project involves the replacement of both the existing CIS and metering infrastructure. Each component of the Project will be discussed in turn, followed by a discussion of the financial implications and rate impact of the entire Project.

CUSTOMER INFORMATION SYSTEM

20. MECL serves more than 86,000 customers throughout Prince Edward Island, ranging from individual residents to large industrial operations. Customer information is retained within an internally developed customer information system (CIS) software program.
21. The CIS stores and provides access to information associated with all active customer accounts and over 175,000 past accounts. The CIS generates more than one million customer bills each year, manages all customer payments, provides a record of customer inquiries, and is the primary tool for maintaining customer relationships.¹³
22. The CIS was originally programmed in-house in the 1980s and had an expected service life of 20 years. To extend the service life, the system was updated with a rewrite of the codebase in 2000 using PowerBuilder and subsequent enhancements. The CIS has also evolved to integrate additional applications for meter orders, field maintenance, outage management, agent payments, line maintenance and work management.¹⁴
23. For several years, MECL has identified CIS as a strategic issue, with risk factors including aged technology, reliance on a small group of in-house experts, lack of configuration functionality, and vulnerability to data privacy and cybersecurity breaches. According to MECL, the resource requirements to maintain the CIS are increasingly burdensome and difficult to maintain in-house.¹⁵
24. In addition, MECL submits that the existing CIS cannot be economically or efficiently integrated with newer software protocols or standards without labour-intensive rewrites of the existing codebase. Although daily operations can still be performed by the current platform, modernization initiatives, such as innovative rate structures, are not possible using the existing CIS.¹⁶

¹² Exhibit C-6

¹³ Exhibit M-1 at pages 5-6

¹⁴ Exhibit M-1 at page 6

¹⁵ Exhibit M-10 at page 7

¹⁶ Exhibit M-10 at page 7

25. According to MECL, the CIS is now at the end of its useful life. Replacement is necessary due to the age of the system, technological obsolescence, and the diminishing availability of software technicians capable of maintaining and supporting the system.¹⁷
26. MECL engaged an independent consultant, TMG Consulting, Inc. (“TMG”), to assist with defining its CIS requirements, identifying potential solutions, and providing a plan for migrating to a new CIS system. TMG, after completing its own assessment of the existing CIS, concluded that it should be replaced.¹⁸
27. TMG recommends that the existing CIS be replaced with a commercial off-the-shelf software (“COTS”) application. A COTS is a pre-packaged software that is tailored to a company’s needs using settings rather than significant programming. According to TMG, a COTS application is similar in concept to Microsoft Word, Excel or Outlook.¹⁹ Some of the advantages of a COTS application include:
 - a. Continual releases with new functionality, technology and fixes being constantly introduced;
 - b. Provides most common utility requirements upfront during implementation; and
 - c. Has a large installed base of existing utilities, which reduces risk and offers more available support resources.²⁰
28. In addition to being a COTS application, TMG also initially recommended that the new CIS be an on-premise solution, rather than cloud-based. At the time of its initial report in April 2022, TMG stated that a COTS on-premise solution is a proven and accepted direction within the industry. According to TMG, approximately 70 percent of utilities operate their CIS on-premise or within a hosted platform at another location.²¹
29. In its Application filed in November 2022, MECL accepted the recommendations of TMG and sought to replace the existing CIS with a COTS on-premise solution. At that time, MECL stated that the CIS software would be hosted within MECL’s facilities, rather than cloud-based. According to MECL, an on-premise solution:

*...[A]voids the risk associated with internet connectivity issues, especially during extreme weather events when the CIS is critically important to outage management and restoration.*²²
30. In December 2023, in response to interrogatories from Commission staff, MECL advised that it was now proposing to use a cloud-based Software as a Service (“SaaS”) solution, rather than an on-premise solution for the CIS.²³

¹⁷ Exhibit M-1 at page 10

¹⁸ Exhibit M-1, Appendix A, page 48

¹⁹ Exhibit M-1, Appendix A, page 44

²⁰ Exhibit M-1, Appendix A, page 44

²¹ Exhibit M-1, Appendix A, page 53

²² Exhibit M-1 at page 14, lines 4-6

²³ Exhibit M-7, Response to IR-34

31. According to MECL, during the CIS request for proposal (“RFP”) process, it became evident that changing market conditions led vendors to phase out their on-premise solutions. As a result, TMG revised their recommendation and MECL adjusted its CIS RFP to ask vendors to provide both an on-premise and a SaaS solution.²⁴
32. At the recommendation of TMG, the CIS RFP was sent to four vendors. To evaluate the CIS vendor proposals, MECL formed a CIS Project Team made up of subject matter experts from across the company. TMG consultants also assisted with vendor evaluations. Although the TMG consultants were non-voting members, they provided advice to the CIS Project Team to ensure the consistency and completeness of the evaluations.²⁵
33. To evaluate the CIS vendors, an evaluation matrix was developed. The evaluation matrix was divided into two main sections: demo and non-demo.²⁶
34. The non-demo components made up 40 percent of the evaluation and included pricing, project organization, timeline, staffing, software vendor profile, and solution capabilities. The demo components made up 60 percent of the evaluation and included product demonstrations, implementation and technical approach, and reference checks.
35. The CIS evaluation process provided each vendor with four days to conduct presentations and demonstrations. TMG also coordinated reference checks for MECL to conduct by virtual meeting.
36. Once the evaluation process was complete, the results of the evaluation were presented to a Steering Committee made up of MECL executives and management.²⁷ The Steering Committee was tasked with approving the Project scope, budget and strategy. The Steering Committee also identifies and manages risk and ensures the Project quality, progress and timelines are maintained.
37. At the conclusion of the RFP evaluation process, SpryPoint and their partner service providers were selected as the vendor of choice. To satisfy the requirements of the RFP, SpryPoint partnered with software vendors UtiliSmart (for meter data management repository) and Survalent (for the outage management system). Another company, Kaihen, will lead all implementation activities related to business process engineering and organizational change management.²⁸
38. SpryPoint is a PEI based company. According to MECL, SpryPoint was selected as the CIS vendor of choice as they “*provided the most integrated solution, a faster product to market for future enhancements, a system designed and proven to operate effectively in the cloud, a local presence, favourable references, a proven organizational change management partner and the lowest overall cost*”.²⁹

²⁴ Exhibit M-10 at page 18

²⁵ Exhibit M-10 at pages 18-19

²⁶ Exhibit M-10, Appendix E, pages 4-7

²⁷ Exhibit M-10 at page 19

²⁸ Exhibit M-10 at page 21, footnote 31

²⁹ Exhibit M-10 at page 21, lines 3-5

39. Members of MECL's executive, management and Board of Directors confirmed that they do not have a relationship, financial or otherwise, with SpryPoint.³⁰
40. After completion of the RFP evaluation process, TMG led the Strategic Sourcing and Procurement process, including contract negotiations with SpryPoint. The Strategic Sourcing and Procurement process led to a final CIS solution that differed from the original recommendations in the TMG report in several ways.
41. Most notably, the selected CIS solution is a cloud-based platform rather than an on-premise platform. According to MECL, this change was made for several reasons, including:
 - a. Increased comfort level with internet reliability and positive experiences with MECL's existing cloud-based solutions, such as the Customer Contact Center, the Microsoft Teams collaboration platform and the ADP payroll system;
 - b. Industry transition from on-premise to cloud-based platforms as experienced by TMG; and
 - c. The overall higher scoring for the cloud-based solution compared to the on-premise solution during the RFP evaluation process.³¹
42. MECL advises that because the replacement of the CIS will impact all aspects of MECL's operations, a detailed implementation resource plan has been developed.³² In addition to MECL's internal implementation team, TMG will serve as the external consultant to assist with implementation of the new CIS.
43. The replacement of the CIS is a multi-year capital project that will be implemented over the course of four years. In the Application filed in November 2022, the total cost of the CIS replacement was forecast to be \$21,535,000.³³ In December 2023, in response to the Commission's interrogatories, MECL advised that the total cost of the CIS project had increased to \$26,190,000.³⁴
44. In the Amended Application filed in April 2024, the total cost of the CIS replacement increased to \$28,185,000, inclusive of interest during construction.³⁵ The CIS multi-year budget, as taken from the Amended Application, is as follows:³⁶

³⁰ Exhibit M-10 at page 44 and Appendix L

³¹ Exhibit M-10 at page 22

³² Exhibit M-10 at page 23

³³ Exhibit M-1 at page 16, Table 3

³⁴ Exhibit M-7, Response to IR-34

³⁵ Exhibit M-10 at page 24, Table 3

³⁶ Exhibit M-10 at page 24, Table 3

TABLE 3 Customer Information System Multi-Year Budget						
Description	2023	2024	2025	2026	2027	Total
Software	\$ -	\$ 525,000	\$ -	\$ -	\$ -	\$ 525,000
Hardware	-	105,000	-	-	-	105,000
Vendor Labour	-	2,428,000	2,428,000	2,428,000	1,011,000	8,295,000
Internal Labour	-	1,779,000	1,844,000	1,756,000	691,000	6,070,000
Owners Engineer ^a	-	459,000	458,000	458,000	-	1,375,000
Other Project Costs ^b	-	274,000	181,000	180,000	-	635,000
Contingency	-	1,446,000	1,446,000	1,446,000	602,000	4,940,000
Maintenance During Project	-	1,083,000	1,138,000	597,000	67,000	2,885,000
Sourcing and Procurement	992,000	368,000	-	-	-	1,360,000
Subtotal	\$ 992,000	\$ 8,467,000	\$ 7,495,000	\$ 6,865,000	\$ 2,371,000	\$ 26,190,000
Interest During Project	-	316,000	884,000	795,000	-	1,995,000
TOTAL	\$ 992,000	\$ 8,783,000	\$ 8,379,000	\$ 7,660,000	\$ 2,371,000	\$ 28,185,000

45. According to MECL, the forecast cost of the CIS project provided in the Amended Application is based on costing available after completing the RFP evaluation process and reflects SpryPoint as the vendor of choice. The total forecast cost (\$28,185,000) also includes a contingency of \$4,940,000 to offset any potential cost overruns. MECL states that it increased the original contingency budget from 15 percent to 30 percent “to account for higher-than-anticipated complexity associated with integrating certain key business applications with the new CIS”.³⁷
46. In addition to the capital costs of the CIS project, MECL forecasts annual operating costs of \$1,403,900. The annual operating costs are shown in the table below, and relate primarily to annual subscription and software licensing fees:

³⁷ Exhibit M-7, Response to IR-34

TABLE 5			
Annual CIS Operating Costs			
Vendor	Application	Description	Cost
SpryPoint	SpryCIS	Customer Information System	\$ 451,500
	SpryEngage	Customer Engagement Platform	108,300
	SpryMobile	Mobile Field Service	189,000
	SprySurvey	Survey System	44,100
	SpryIDM	Interval Data Management	45,200
	SpryCHAT	Customer Live Chat	5,200
	Short Code	Text Messaging Capabilities	15,800
	24/7 Support	Technical & Ongoing Support Services	105,000
Subtotal			\$ 964,100
UtiliSmart	Meter Data Management (MDM) Application		296,400
Survalent	SurvalentONE	Customer Outage Portal	70,700
	Procoess360	Business Process Mapping	26,200
TOTAL Subscription Fees			\$ 1,357,400
Software Licenses – SurvalentONE			46,500
TOTAL Annual Operating Costs			\$ 1,403,900

47. MECL advises that it did not prepare a business case to justify the replacement of the CIS. According to MECL, because the CIS is at the end of its useful life, a business case is redundant.³⁸

ADVANCED METERING INFRASTRUCTURE

48. MECL's electrical system currently uses radio frequency ("RF") meters. The RF meters are read once per month using vehicle drive-past technology. As part of this Application, MECL is seeking approval to replace the existing RF meters with AMI technology.
49. AMI technology allows for hourly (or more frequent) meter readings and associated communication capabilities. According to MECL, AMI technology will allow the company to employ innovative rate structures, such as time-of-use ("TOU") rates, and will help MECL achieve load shifting.³⁹
50. Electricity usage is increasing at a significant rate in PEI, driven primarily by population growth and clean-energy electrification initiatives. The resulting increase in consumption is putting pressure on the electrical system. This will, in turn, require infrastructure upgrades and capacity requirements in the future, if current consumption growth patterns continue.⁴⁰
51. Innovative rate structures, which require AMI technology, can be used to incent customers to shift load from peak to off-peak periods. Load shifting has the potential to spread customers' daily energy consumption throughout the day, thereby reducing the system

³⁸ Exhibit M-10 at page 17, footnote 23

³⁹ Exhibit M-10 at pages 27-28

⁴⁰ Exhibit M-10 at page 27

peak and delaying or avoiding the need to incur additional infrastructure investment or capacity costs.⁴¹

52. In or around 2020, MECL retained an independent consultant, Util-Assist Inc. (“Util-Assist”), to assess the financial viability and potential benefits of AMI. Util-Assist finalized its report in August 2021. A copy of the Util-Assist report has been filed with the Commission as part of this Application.⁴²
53. Util-Assist explains that an AMI system typically includes the following component technologies:
 - a. Smart meters with communication modules to collect and transmit meter data;
 - b. Data collectors to collect data from meters and transmit that data to the head-end system;
 - c. An AMI head-end system to receive and store data; and
 - d. A meter data management (“MDM”) system to store, analyze, validate and edit meter data.⁴³
54. In its August 2021 report, Util-Assist determined that the AMI project was not cost effective for MECL. Util-Assist stated that, because MECL was already using automated meter reading, the meter reading-related benefits associated with AMI would be incremental. Util-Assist ultimately concluded that the net present value (“NPV”) of the AMI investment over a 20 year period would be negative \$3.9 million.⁴⁴
55. In 2024, Util-Assist prepared an updated business case, a copy of which was filed with the Commission as part of the Amended Application.⁴⁵ Util-Assist determined that the AMI project had become even less cost effective. As of March 2024, the NPV of the AMI project stood at negative \$12 million. In its updated business case, Util-Assist determined that the total cost of the AMI project was \$56 million, while the benefits were only \$44 million.⁴⁶
56. To justify the AMI project, MECL is proposing to apply all of the NRCan funding (\$19 million) to the AMI project. If the entire NRCan funding is applied to the AMI project, the NPV changes from negative \$12 million to positive \$7 million. MECL therefore submits that the NRCan funding creates a positive business case for the AMI project.⁴⁷
57. After receiving confirmation of the NRCan funding, Util-Assist worked with MECL to develop a comprehensive list of requirements for an AMI RFP. On the recommendation

⁴¹ Exhibit M-10 at pages 27-28

⁴² Exhibit M-1, Appendix B

⁴³ Exhibit M-1 at pages 19-20

⁴⁴ Exhibit M-1, Appendix B, page 8

⁴⁵ Exhibit M-10, Appendix B

⁴⁶ Exhibit M-10, Appendix B, page 10

⁴⁷ Exhibit M-10 at pages 37-38

of Util-Assist, the RFP was issued to three vendors in December 2022. MECL received two vendor proposals in response to the RFP.⁴⁸

58. MECL and Util-Assist then completed a comprehensive review and evaluation of the two proposals. The evaluation process included evaluation of technical and pricing proposals, requests for clarification, follow-up questions, vendor presentations, product demonstrations, reference checks, and review of final submissions and pricing.⁴⁹
59. At the conclusion of the evaluation process, MECL selected Itron as the AMI vendor of choice. According to MECL, Itron:
 - a. Scored highest based on its technical capabilities;
 - b. Had the lowest total solution cost;
 - c. Offers meter hardware that is substantially more powerful than its competitor;
 - d. Has more advanced operational and customer-facing capabilities than other solutions on the market; and
 - e. Offers a full suite of metering products that are fully approved for use by Measurement Canada.⁵⁰
60. As part of its due diligence, MECL also consulted with neighboring utilities, Nova Scotia Power and NB Power, whose AMI implementation processes are in progress. Both Nova Scotia Power and NB Power also selected Itron as their AMI vendor.⁵¹
61. In addition, MECL advises that an implementation resource plan has been developed. MECL's internal team will be supported by external resources from Itron and Util-Assist. Itron will provide program and project management, while Util-Assist will augment the AMI project resourcing and act as a system integrator and owner's engineer.⁵²
62. In the Application as filed in November 2022, the forecast cost of the AMI project was \$26,050,000.⁵³ In the Amended Application filed in April 2024, the forecast cost has increased to \$38,590,000.⁵⁴ As MECL proposes to apply the entire amount of the NRCan funding (\$19 million) to offset the cost of the AMI project, the net cost of the AMI project is \$19,590,000.
63. The AMI multi-year budget, as taken from the Amended Application, is as follows:⁵⁵

⁴⁸ Exhibit M-10 at pages 32-33

⁴⁹ Exhibit M-10 at page 33

⁵⁰ Exhibit M-10 at pages 33-34

⁵¹ Exhibit M-10 at page 34

⁵² Exhibit M-10 at pages 35-36

⁵³ Exhibit M-1 at page 23, Table 4

⁵⁴ Exhibit M-10 at page 37, Table 6

⁵⁵ Exhibit M-10 at page 37, Table 6

TABLE 6 Advanced Metering Infrastructure Multi-Year Budget					
Description	2023	2024	2025	2026	Total Budget
Meter Equipment	\$ -	\$ 7,795,000	\$ 7,795,000	\$ -	\$ 15,590,000
Meter Vendor Services	-	594,000	968,000	1,183,000	2,745,000
Meter Installation	-	198,000	1,177,000	840,000	2,215,000
Network Infrastructure	-	2,877,000	2,878,000	-	5,755,000
Head-End System	-	2,433,000	1,052,000	-	3,485,000
Internal Labour and Transportation	-	999,000	1,062,000	1,009,000	3,070,000
System Upgrade	-	1,270,000	580,000	480,000	2,330,000
Professional Services	-	297,000	593,000	-	890,000
Customer Support	-	80,000	120,000	60,000	260,000
Sourcing and Procurement	386,000	134,000	-	-	520,000
Contingency	-	430,000	410,000	85,000	925,000
Subtotal	\$ 386,000	\$ 17,107,000	\$ 16,635,000	\$ 3,657,000	\$ 37,785,000
Interest During Project	-	104,000	356,000	345,000	805,000
Contributions	-	(12,000,000)	(7,000,000)	-	(19,000,000)
TOTAL	\$ 386,000	\$ 5,211,000	\$ 9,991,000	\$ 4,002,000	\$ 19,590,000

64. According to MECL, the increase cost is due to a number of factors, including rising inflation and labour rates, supply chain and semi-conductor constraints, and a higher Canadian dollar to U.S. dollar exchange rate. In addition, as the AMI RFP is now complete, the forecast project costs in the Amended Application are based on price figures provided by the selected AMI vendor.⁵⁶
65. In addition to the capital costs of the AMI project, MECL forecasts annual operating costs of \$1,831,000.⁵⁷ The annual operating costs are shown in the table below, and relate primarily to annual maintenance and subscription fees, as well as incremental internal labour and costs to operate the AMI system:

TABLE 7 AMI Annual Operating Costs	
Vendor Annual Subscription Fees	\$ 996,000
Vendor Annual Maintenance Fees	222,000
Subtotal – External Operating Costs	\$ 1,218,000
Cell Data Communication Costs	166,000
AMI Superintendent	164,000
Meter Data and Communication Analyst (2)	250,000
Training and Other Costs	33,000
Subtotal - Internal Operating Costs	\$ 613,000
TOTAL Annual Operating Costs	\$ 1,831,000

⁵⁶ Exhibit M-10 at page 38

⁵⁷ Exhibit M-10 at pages 39-40

IMPACT ON RATE BASE, REVENUE REQUIREMENT & CUSTOMER RATES

66. The total budget for the Project (both the CIS and AMI components) is \$66,775,000.⁵⁸ After deducting the \$19 million in NRCAN funding, the net capital cost of the multi-year Project is \$47,775,000, summarized as follows:

Description	2023	2024	2025	2026	2027	Total Budget
Customer Information System	\$ 992,000	\$ 8,467,000	\$ 7,495,000	\$ 6,865,000	\$ 2,371,000	\$ 26,190,000
Advanced Metering Infrastructure	386,000	17,107,000	16,635,000	3,657,000	-	37,785,000
Interest During Construction	-	420,000	1,240,000	1,140,000	-	2,800,000
Contributions	-	(12,000,000)	(7,000,000)	-	-	(19,000,000)
TOTAL	\$ 1,378,000	\$ 14,994,000	\$ 18,370,000	\$ 11,662,000	\$ 2,371,000	\$ 47,775,000

67. The NRCAN funding was approved in March 2022, with a requirement to use the funding by March 2025. In March 2024, NRCAN offered an extension of the funding agreement to March 2028.⁵⁹
68. If approved, the Project will increase MECL's annual revenue requirement. MECL recovers its annual revenue requirement from its customers through the rates, tolls and charges for electric service. This means that the cost of the Project, if approved, will be recovered from MECL customers through electric rates.
69. The annual revenue requirement associated with the Project includes several components, including depreciation expense, operating expenses, and income tax expense.⁶⁰ The Project is expected to increase MECL's annual revenue requirement as follows:⁶¹

Year	Increase in Annual Revenue Requirement
2024	\$844,000
2025	\$1,433,000
2026	\$5,691,000
2027	\$8,721,000
2028	\$8,739,000
2029	\$8,669,000
2030	\$8,605,000

70. The increased revenue requirement also includes an increased return on rate base. In general terms, the new CIS and AMI will increase the value of MECL's assets, known as its rate base. Because MECL earns an annual return (currently forecast to be 6.7 percent)

⁵⁸ Exhibit M-10 at page 12, Table 1

⁵⁹ Exhibit M-10 at page 13

⁶⁰ Exhibit M-10 at pages 41-42

⁶¹ Exhibit M-10 at page 42, Table 9

based on the value of its rate base, MECL's return on rate base will increase due to the increased value of its assets.

71. The following table summarizes the forecast increase in MECL's rate base and return on rate base, based on its current forecast return on rate base of 6.7 percent:⁶²

TABLE 8 Advanced Metering for Sustainable Electrification Project Estimated Rate Base Increase and Return on Rate Base						
Year	Increase in Rate Base			Annual Return on Rate Base		
	CIS	AMI	Total	CIS	AMI	Total
2023	\$ 992,000	\$ 386,000	\$ 1,378,000	\$ 66,000	\$ 26,000	\$ 92,000
2024	9,775,000	4,710,000	14,485,000	338,000	211,000	549,000
2025	18,154,000	10,316,000	28,470,000	330,000	334,000	664,000
2026	19,307,000	10,752,000	30,059,000	496,000	374,000	870,000
2027	15,987,000	9,925,000	25,912,000	1,069,000	664,000	1,733,000
2028	13,705,000	9,117,000	22,822,000	917,000	610,000	1,527,000
2029	11,791,000	8,328,000	20,119,000	789,000	557,000	1,346,000
2030	9,876,000	7,556,000	17,432,000	661,000	505,000	1,166,000

72. MECL advises that the Project, if approved, will result in a 2.7 percent rate increase for benchmark Residential and General Service customers.⁶³ The rate increase will not come into effect until the infrastructure is used and useful and placed into service.⁶⁴ In terms of dollars, by 2027, this represents an increase of \$43.37 per year for a benchmark Residential customer, and \$667.20 per year for a benchmark General Service customer.⁶⁵

DECISION:

73. This is a supplemental capital budget request in which MECL seeks Commission approval of the capital expenditures relating to a multi-year capital project. The Commission, in accordance with section 17 of the *Electric Power Act*, is required to review the proposed capital expenditures and approve them, in whole or in part.⁶⁶
74. When presented with an application such as this, the Commission undertakes a thorough review of the entire Project to ensure that the Project is necessary to provide safe and reliable service, and that the capital expenditures are prudent and reasonable. The Commission does not, however, approve the operational components of the Project, such as the technical requirements or the vendors selected to perform the work. Those are management decisions made by MECL.

⁶² Exhibit M-10 at page 41, Table 8

⁶³ MECL defines a benchmark Residential customer as one who uses 650 kWh per month. The benchmark General Service customer uses 10,000 kWh per month.

⁶⁴ Exhibit C-6 at 50:38-50:29

⁶⁵ Exhibit M-10 at page 43, Table 10

⁶⁶ *Electric Power Act*, R.S.P.E.I. 1988, Cap. E-4, section 17(3)

75. Based on the evidence before it, and for the reasons that follow, the Commission approves the supplemental capital budget request for this Project. As this is a multi-year capital project, the capital expenditures approved in each year of the Project are as follows:

TABLE 1 Advanced Metering for Sustainable Electrification Project Multi-Year Budget						
Description	2023	2024	2025	2026	2027	Total Budget
Customer Information System	\$ 992,000	\$ 8,467,000	\$ 7,495,000	\$ 6,865,000	\$ 2,371,000	\$ 26,190,000
Advanced Metering Infrastructure	386,000	17,107,000	16,635,000	3,657,000	-	37,785,000
Interest During Construction	-	420,000	1,240,000	1,140,000	-	2,800,000
Contributions	-	(12,000,000)	(7,000,000)	-	-	(19,000,000)
TOTAL	\$ 1,378,000	\$ 14,994,000	\$ 18,370,000	\$ 11,662,000	\$ 2,371,000	\$ 47,775,000

REPLACEMENT OF THE CUSTOMER INFORMATION SYSTEM

76. The Commission has been aware since at least 2020 that MECL's existing CIS was approaching the end of its useful life.⁶⁷ Over the last several years, MECL has worked with its internal subject matter experts and its external consultant, TMG, to find a replacement CIS that would serve the needs of both MECL and its customers.
77. The Commission accepts the evidence of MECL and TMG that the existing CIS has reached the end of its useful life. The Commission further accepts, based on the recommendation of TMG and the evidence before it, that replacement of the existing CIS is prudent and reasonable.
78. The CIS is a critical component of MECL's day-to-day operations. The CIS manages customer information, generates bills, records payments and customer inquiries, and is integral to the provision of reliable service. Accordingly, there is a genuine operational risk for MECL and its customers by continuing to operate a CIS that has reached the end of its useful life.

REPLACEMENT OF THE METERING INFRASTRUCTURE

79. The Commission recognizes the benefits, both quantifiable and non-quantifiable, of replacing the existing RF meters with AMI technology, including Smart Meters. AMI will allow MECL to communicate remotely with customers' meters. The ability for remote communication will (among other things) streamline meter reading, connections and disconnections. It will also allow MECL to receive real-time outage information for each of its customers, which is critical during a system outage event.
80. AMI will also allow for the future development of innovative rate structures, including TOU rates. An innovative rate structure can provide tangible benefits to both MECL and its customers. Customers, for example, may have the opportunity to change their consumption patterns to reduce their electric bill. Similarly, MECL may be able to incentivize consumption from peak to off-peak hours, delaying or avoiding investments in

⁶⁷ Docket UE20731, 2021 Annual Capital Budget Application filed August 6, 2020

infrastructure. Although the Commission has previously directed MECL to consider innovative rate structures, including TOU rates,⁶⁸ technology has been a limiting factor.

81. Despite the benefits of AMI, MECL's independent consultant, Util-Assist, has determined that the AMI component of the Project is not cost effective. However, cost effectiveness changes substantially once the NRCAN funding is considered. Applying the full amount of the NRCAN funding (\$19 million) to the AMI project results in a positive NPV of \$7 million and a positive business case.

NRCAN FUNDING

82. The Commission is encouraged that MECL actively sought out government funding to offset the capital cost of this Project. The NRCAN funding is not only a financial benefit for MECL's customers, it is integral to making AMI, and the Project as a whole, cost effective. As the NRCAN funding is necessary for MECL's business case, approval of this supplemental capital budget request is conditional upon receipt and application of the full amount of the NRCAN funding (\$19 million) to the Project.
83. The Commission understands that MECL must still satisfy certain requirements to ensure that it receives the full \$19 million in approved NRCAN funding. MECL advises, for example, that the funding must be utilized by March 2028.
84. The ability to fulfil the NRCAN funding requirements rests solely with MECL. The Commission expects and directs MECL to take all necessary steps to ensure that the full \$19 million is received from NRCAN. In the event that all or part of the NRCAN funding does not materialize, MECL will not be entitled to recover any shortfall from MECL customers without a further Order of this Commission.
85. The amount of any NRCAN funding received for the Project will be excluded from MECL's rate base, so that the value of the assets recorded in the company's rate base are net of the NRCAN funding.

MATERIAL CHANGES TO FORECAST CAPITAL EXPENDITURES

86. The Commission, despite its approval of this supplemental capital budget request, has serious concerns about the substantial increase in the cost of this Project since the Application was filed in November 2022.
87. When the Application was filed with the Commission in November 2022, MECL advised that the forecast cost of the Project was \$47.6 million. In December 2023, in response to interrogatories from the Commission, MECL disclosed that the forecast cost had increased to \$64.0 million. By the time that MECL filed its Amended Application in April 2024, the forecast cost had again increased to \$66.775 million.
88. Over the course of 17 months (November 2022 to April 2024), the forecast cost of the Project increased by \$19.175 million, representing a 40 percent increase. The

⁶⁸ Order UE19-08 at paras 367-368; Order UE20-06 at para. 203

Commission does not accept that this substantial increase is due to inflation, supply-chain issues, interest during construction, or the strength of the Canadian dollar.

89. The substantial increase in cost is, in the opinion of the Commission, reflective of the magnitude and complexity of the Project. The scale of this Project, both in terms of the work to be performed and the value of the capital expenditures, makes it one of the largest and most complex capital projects undertaken by MECL to date. It will require the simultaneous replacement of MECL's CIS and its metering infrastructure, both critical components to the provision of safe and reliable electric service.
90. MECL advises that the capital expenditures included in the Amended Application are based on actual pricing from the selected CIS and AMI vendors. MECL also advises that approximately \$27 million of the \$38 million budget for the AMI project are "fixed" costs, in that the vendor has committed to a certain fixed price.⁶⁹
91. In addition to the fixed costs, the capital expenditures put forth in the Amended Application include generous contingencies of 30 percent for the CIS project and 10 percent for the AMI project.
92. MECL also advises that the contract terms with the selected CIS and AMI vendors include milestone-based payments and fixed pricing terms. As explained by MECL, these contract terms guarantee that MECL (1) will not pay additional money for delivery of the Project, even if the Project milestones are extended, if the extension is the fault of the vendor, and (2) MECL must receive certain defined deliverables before a milestone payment is made to the vendor.⁷⁰
93. All of this, taken together, suggests that the Project, if properly managed, should not exceed the capital expenditures approved herein. In the event there are cost overruns, MECL should not assume that they will be recoverable from ratepayers, in whole or in part. Instead, in the event that the capital expenditures exceed the amounts approved herein, MECL is required to submit a further supplemental capital budget request to the Commission. If such an application is received, the Commission will determine at that time whether all or any part of the cost overruns will be recoverable from ratepayers.
94. The capital expenditures approved herein are approved solely for this specific Project. If the Project comes in underbudget, MECL shall not use the cost savings for any other capital or operating expenses without a further Order of this Commission.

REPORTING REQUIREMENTS

95. Due to the magnitude and complexity of this Project, MECL is required to provide quarterly progress updates to the Commission. MECL must also file a comprehensive annual report for each year of the Project. The annual report must be filed no later than February 28th for the preceding fiscal year. The report should detail the capital expenditures, work performed, NRCan funding received, and any changes to the timelines, scope or cost of the Project. This list is not exhaustive.

⁶⁹ Exhibit C-6 at 55:43-55:04

⁷⁰ Exhibit M-10 at page 44-45

96. In addition to the foregoing reporting requirements, MECL is also required to immediately advise the Commission of any material change(s) to the Project, including (but not limited to) any material change to the timeline, scope or cost of the Project. MECL must also advise the Commission prior to utilizing any of the contingency funds approved for the CIS or the AMI component of the Project.
97. Finally, MECL is required to file with the Commission, for each year of the Project, an independent audit opinion that verifies and deems appropriate the capital expenditures incurred with respect to the Project. The independent audit opinion must be filed no later than February 28th for the preceding fiscal year.

ORDER:

The Commission Orders as follows:

1. The following capital expenditures are approved for each year of the Project:

TABLE 1						
Advanced Metering for Sustainable Electrification Project						
Multi-Year Budget						
Description	2023	2024	2025	2026	2027	Total Budget
Customer Information System	\$ 992,000	\$ 8,467,000	\$ 7,495,000	\$ 6,865,000	\$ 2,371,000	\$ 26,190,000
Advanced Metering Infrastructure	386,000	17,107,000	16,635,000	3,657,000	-	37,785,000
Interest During Construction	-	420,000	1,240,000	1,140,000	-	2,800,000
Contributions	-	(12,000,000)	(7,000,000)	-	-	(19,000,000)
TOTAL	\$ 1,378,000	\$ 14,994,000	\$ 18,370,000	\$ 11,662,000	\$ 2,371,000	\$ 47,775,000

COST OVERRUNS

2. The capital expenditures for the Project are limited to the amounts approved herein.
3. In the event the capital expenditures exceed the amounts approved herein, MECL shall submit a further supplemental capital budget request to the Commission. The Commission shall, in its sole discretion, determine whether any additional capital costs shall be recoverable, in whole or in part, from ratepayers.
4. The capital expenditures approved herein are approved solely for this specific Project. If the Project comes in underbudget, MECL shall not use the cost savings for any other capital or operating expenses without a further Order of this Commission.

NRCAN FUNDING

5. MECL shall take all necessary steps to ensure that the full amount of the NRCAN funding, being \$19 million, is received and applied to the capital costs of the Project.

6. If MECL does not receive all or part of the NRCan funding, MECL shall not be entitled to recover any shortfall from MECL customers without a further Order of this Commission.
7. The amount of any NRCan funding received for the Project shall be excluded from MECL's rate base, and the value of the assets recorded in MECL's rate base shall be net of the NRCan funding.

REPORTING REQUIREMENTS

8. MECL shall provide quarterly progress updates to the Commission.
9. MECL shall file a comprehensive annual report for each year of the Project, detailing the capital expenditures, work performed, NRCan funding received, and any changes to the timelines, scope or cost of the Project.
10. The comprehensive annual report shall be filed no later than February 28th for the preceding fiscal year.
11. MECL shall file with the Commission, for each year of the Project, an independent audit opinion that verifies and deems appropriate the capital expenditures incurred with respect to the Project. The independent audit opinion shall be filed no later than February 28th for the preceding fiscal year.
12. In addition to the foregoing reporting requirements, MECL shall:
 - a. Immediately advise the Commission of any material change(s) to the Project, including (but not limited to) any material change to the timeline, scope or cost of the Project; and
 - b. Immediately advise the Commission when MECL is utilizing any of the contingency funds approved for the CIS or the AMI component of the Project.

DATED at Charlottetown, Prince Edward Island, this 4th day of October, 2024.

BY THE COMMISSION:

(sgd) M. Douglas Clow

M. Douglas Clow, CPA, CA, Acting Chair

(sgd) Kerri Carpenter

Kerri Carpenter, Commissioner