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October 20, 2023

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

Dear Ms. Mosher:

**UE20739 – 2024 Capital Budget Application
Additional Clarification Questions**

Please find attached the Company's responses to additional clarification questions from Mr. Roger King with respect to the 2024 Capital Budget Application filed with the Commission on August 14, 2023.

Yours truly,

MARITIME ELECTRIC

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

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

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Via email: rdking519@gmail.com

October 20, 2023

Mr. Roger King
519 Simpson Mill Rd
Hunter River PE C0A 1N0

**UE20739 – 2024 Capital Budget Application
Additional Clarification Questions**

Please find attached the Company's response to your additional clarification questions with respect to the 2024 Capital Budget Application filed with the Commission on August 4, 2023.

Yours truly,

MARITIME ELECTRIC

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

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

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INTERROGATORIES

**Additional Responses to Interrogatories
of
Roger King**

**2024 Capital Budget
Clarification Questions
(UE20739)**

Submitted October 20, 2023

Maritime Electric

IR-3 For IR-3 question (c) requested the "financial return results" of the RI program. The response included subjective results but no specific return data.

Response:

Utility asset accounting, where assets are grouped for collective depreciation, is not conducive to calculating asset specific financial return information. For this reason, Maritime Electric cannot provide financial results specific to the radio interrogation ("RI") meter program.

Maritime Electric

IR-5 For IR-5 response informs that "full deployment of meters is required". Assuming that individual meters have battery back-up to maintain communication paths during power outages (please confirm), what is the maximum outage period before meter power must be restored?

Response:

There is no maximum outage period that power must be restored. The meters being proposed in the Application can maintain all pertinent information related to metrology, billing and time for up to 20 years because that function requires such a minimal amount of energy which is provided by a small internal battery. Therefore, even after long periods of a meter sitting in storage or without power, the meter is able to power up and continue from the previous meter reading with the appropriate meter programming details. The meter registers zeros for consumption during periods of no power and, once power is restored, continues to record interval data from that point forward.

The communication functions of a meter require considerably more power. For this reason, each meter has a capacitor for maintaining power to the communications board for six seconds to allow power outage notifications ("PONs") to be sent. Maritime Electric is considering purchasing an optional component called a supercap, which will ensure each meter is capable of relaying outage messages for up to 75 seconds. A battery large enough to maintain meter communication functions for extended durations would result in a meter that could not be mounted in a standard meter socket. Also, a battery sized to power the communications board of a meter for extended periods would require maintenance and, with more than 85,000 meters installed, the cost to do so would be prohibitive.

There is a potential that during some outage events, situations could occur where a meter communication path has been interrupted by a previous outage or damage to a communication device. This is why each meter evaluates and creates primary and backup communication paths. If the primary path is interrupted, the meter will try alternate paths throughout the 75 second window. If a complete path cannot be found, the utility will be initially unaware of the outage, similar to today. After a customizable period of time, non-communicating meters would be flagged by the head end system for investigation. Any meters not responding could be assumed to be involved in an outage. It is important to remember that in a significant outage event of this magnitude, the Company would be operating from an elevated outage management response level and close monitoring of the metering system would be initiated, and the Company would investigate outages once meters become unresponsive.

Pole mounted communication equipment, repeaters and collectors, responsible for communicating with larger volumes of meters, are installed with an 8-hour, 16-hour or 24-hour battery pack. The Company is evaluating the appropriate length of battery duration required for these components.

Maritime Electric

IR-8 Is MECL purchasing "a section of T-23" as stated or is the intention to purchase the entire T-23 line. What are the T-23 distances involved?

Response:

Transmission line T-23, which is owned by PEI Energy Corporation ("PEIEC") and extends from Alberton to North Cape, is 28.4 kilometres ("km") long. To supply the Tignish substation, Maritime Electric plans to purchase approximately 16 km of T-23, located between Alberton and Tignish. The balance of T-23 between Tignish and North Cape will continue to be owned by PEIEC.