



September 19, 2014

Mr. Mark Lanigan
Director, Corporate Services and Appeals
Island Regulatory and Appeals Commission
PO Box 577
501 – 134 Kent Street
Charlottetown PE C1A 7L1



Dear Mr. Lanigan:

**Responses to Interrogatories
Maritime Electric 2015 Capital Budget**

Please find attached the Company's response to the Interrogatories filed by the Island Regulatory and Appeals Commission with respect to the 2015 Capital Budget.

Yours truly,

MARITIME ELECTRIC

A handwritten signature in black ink, appearing to read "S. D. Loggie". The signature is written over the printed name "S. D. Loggie" and extends upwards and to the left, crossing over the word "MARITIME ELECTRIC".

S. D. Loggie
Vice President, Finance and Chief Financial Officer

SDL40

Enclosure

S-1 Generally, has there been any apparent increase in failure of these RI meters compared to the previously used meters? What is the depreciation rate being used for the new RI meters? What rate was used on the previous meters? Please provide the Commission with the testing results being performed on the RI meters this fall.

Response:

S-1 Maritime Electric has experienced a slight increase in meter failure when comparing the newer digital meters to the older electromechanical meters. Maritime Electric has observed that RI digital meters are more sensitive to the connections of the customer meter base than the electromechanical meters due to an industry wide change in meter construction materials (plastic now used versus Bakelite). Maritime Electric has also experienced a few display issues with the liquid crystal display (LCD) screen on first generation RI meters, which was not an issue with older electromechanical meters.

In August 2014, Measurement Canada (MC) approved two residential meter sample groups that Maritime Electric had tested according to MC testing requirements. The first RI meter sample group population was 396 and the sample size was 100. This group was granted the maximum service extension of eight years and will be retested in 2022. The second RI meter sample group population was 3,048 and the sample size was 156. This second group was also granted the maximum service extension of eight years and will be retested in 2022. Of the RI meters sampled, approximately 2.9% had LCD display issues. It appears that a breakdown of the epoxy seal used to prevent environmental contamination inside the glass of the LCD may be caused by excessive UV exposure, which may be causing the LCD failure. These groups were the first RI meters installed on PEI and MC allowed the removal of the meters affected with the LCD screen issue from the sample groups. All accuracy testing to date has been excellent on the digital RI meters.

Currently, the RI meters and the previous electromechanical meters currently have a depreciation rate of 3%.

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With the recent increase in residential load growth associated with electric heating technology, Maritime Electric expects to tap into Y104 in the East Royalty area in the near future to establish a 138 kV substation to service the growing load in that area.

Maritime Electric currently has a 10 MVA, 69 kV/25kV/12.5 kV transformer which is not usable on the 138 kV system. This mobile transformer is used for backup as well as for preventative maintenance on the 69 kV system. In September 2013 major 69 kV bushing damage on the Dover substation transformer was discovered and required the replacement of the 69 kV bushings. The mobile transformer was placed in service for several months in the Dover substation while the substation transformer was shipped to Moncton NB for repairs and oil refurbishment. The Dover substation transformer was returned to service in November 2013.

By using the 69 kV/12.5 kV mobile transformer to perform the preventative maintenance bushing inspection, a significant outage affecting over 2,000 customers in the Dover area was avoided. Annually, the mobile transformer has been deployed to facilitate emergency transformer repairs, new transformer installation and preventative maintenance. In recent years, the mobile transformer has been deployed at the Dover, Rattenbury, Scotchfort, Dingwells Mills and McCain substations, which significantly reduced customer outage time in those areas.

The new substation at Charlottetown Airport proposed in Maritime Electric's 2015 Capital Budget Application is intended in part to serve growth in industrial load at the airport and Bio Vectra as well as residential and general service load at a 25 kV distribution voltage. At 25 kV, this substation will then be able to offload the two 20 MVA, 69/25kV transformers at the West Royalty substation when the 25 kV load exceeds 75% of their rated capacity, which is expected within the next five years. Without this second 25 kV source of supply, in the case of one West Royalty 25 kV transformer failure, the capacity of the second transformer and the 10 MVA mobile transformer will be exceeded.

The Company has also identified the need for new distribution substations in the New Glasgow, Cherry Valley and East Royalty areas within the next several years. The plan for these new substations is based on a projected load growth that takes in consideration load increase in the last few years plus any additional spot loads and will be presented in the Company's future Capital Budget applications.