MARITIME ELECTRIC
A FORTIS COMPANY

July 30, 2015

Island Regulatory & Appeals Commission
PO Box 577
Charlottetown PE C1A 7L1

Dear Commissioners:

Please find enclosed 10 copies of Maritime Electric's 2016 Capital Budget.

If you require further information, please do not hesitate to contact me at (902) 629-3667.

Yours truly,

MARITIME ELECTRIC

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

SDL38
Encl. as noted

C A N A D A

PROVINCE OF PRINCE EDWARD ISLAND

BEFORE THE ISLAND REGULATORY
AND APPEALS COMMISSION

IN THE MATTER of Section 17(1) of the Electric Power Act (R.S.P.E.I. 1988, Cap. E-4) and **IN THE MATTER** of the Application of Maritime Electric Company, Limited for an order of the Commission approving the 2016 Annual Capital Budget and for certain approvals incidental to such an order.

APPLICATION AND EVIDENCE
OF
MARITIME ELECTRIC COMPANY, LIMITED

Date: July 30, 2015

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C A N A D A

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Introduction

1. Maritime Electric Company, Limited ("Maritime Electric" or the "Company") is a Corporation incorporated under the laws of Canada with its head or registered office at Charlottetown and carries on a business as a public utility within the scope of the Electric Power Act ("EPA" or the "Act") engaged in the production, purchase, transmission, distribution and sale of electricity within Prince Edward Island.

Application

2. Maritime Electric hereby applies for an order of the Island Regulatory and Appeals Commission ("IRAC" or the "Commission") approving the Annual Capital Budget ("the Budget") for the year 2016 as outlined in the attached evidence.

3. The proposals contained in this Application represent a just and reasonable balance of the interests of Maritime Electric and those of its customers and will, if approved, allow the Company to perform necessary capital improvements at a cost that is, in all circumstances, reasonable.

Procedure

4. Filed hereto is the Affidavit of Frederick J. O'Brien, Steven D. Loggie, John D. Gaudet and Angus S. Orford which contains the evidence in which Maritime Electric relies in this Application.

Dated this 30th day of July, 2015.

D. Spencer Campbell
Counsel for the Applicant
Whose address for service is:

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2.0 AFFIDAVIT

C A N A D A

PROVINCE OF PRINCE EDWARD ISLAND

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We, Frederick James O'Brien, of Alberton, in Prince County, Steven David Loggie, John David Gaudet and Angus Sumner Orford, of Charlottetown, in Queens County, Province of Prince Edward Island, MAKE OATH AND SAY AS FOLLOWS:

1. We are the President and Chief Executive Officer, Vice-President, Finance and Chief Financial Officer and Vice-President, Corporate Planning and Energy Supply and Vice-President of Customer Service of Maritime Electric respectively and, as such, have personal knowledge of the matters deposed to herein, except where noted, in which case we rely upon the information of others and in which case we verily believe such information to be true.

2. Maritime Electric is a public utility subject to the provisions of the Electric Power Act engaged in the production, purchase, transmission, distribution and sale of electricity within Prince Edward Island.

3. We prepared or supervised the preparation of the evidence and to the best of our knowledge and belief the evidence is true in substance and in fact. A copy of the evidence is attached to this, our Affidavit, and is collectively known as Exhibit "A", contained in Sections 3 through 9 inclusive and Appendix A.

4. Section 10 contains a proposed Order of the Commission based on the Company's Application.

SWORN SEVERALLY at
Charlottetown, County of Queens,
Province of Prince Edward Island,
the 30th day of July, 2015.

Before me:

Frederick J. O'Brien

Steven D. Loggie

John D. Gaudet

Angus S. Orford

A Commissioner for taking Affidavits
in the Supreme Court of Prince Edward Island.

3.0 INTRODUCTION

3.1 Corporate Profile

Maritime Electric owns and operates a fully integrated system providing for the purchase, generation, transmission, distribution and sale of electricity throughout Prince Edward Island. The Company's head office is located in Charlottetown with generating facilities in Charlottetown and Borden-Carleton. The Company has contractual entitlement to capacity and energy from NB Power's Point Lepreau Nuclear Generating Station ("Point Lepreau") and an agreement for the purchase of capacity and system energy from NB Power delivered via two submarine cables leased from the Province of Prince Edward Island. The Company purchases 92 MW of wind powered energy through contracts with PEI Energy Corporation.

3.2 Overview of Evidence

Under Section 17 (1) of the Electric Power Act, Maritime Electric is required to submit to the Island Regulatory and Appeals Commission, for its approval, an annual Capital Budget of proposed improvements or additions to the property of the public utility. This is the evidence in support of the Company's proposed 2016 Annual Capital Budget. Appendix A outlines the level of the Company's actual and proposed capital expenditures over the 2007-2016 periods. Table 1 below outlines the proposed capital expenditures for 2016 specifically.

Table 1

Proposed 2016 Capital Expenditures

4.0	**Generation**		
	4-1	Charlottetown Plant Buildings and Services Projects	$ 98,000
	4-2	Charlottetown Plant Boiler Projects	283,000
	4-3	Charlottetown Plant Turbine-Generator Projects	680,000
	4-4	Borden Plant Projects	154,000
			1,215,000
5.0	**Distribution**		
	5-1	Replacements due to Storms, Collisions, Fire and Road Alterations	1,042,000
	5-2	Distribution Transformers	3,219,000
	5-3	Services and Street Lighting	4,623,000
	5-4	Line Extensions	2,344,000
	5-5	Line Rebuilds	3,145,000
	5-6	System Meters	635,000
	5-7	Distribution Equipment	1,778,000
	5-8	Transportation Equipment	752,000
			17,538,000
6.0	**Transmission**		
	6-1	Substation Projects	4,941,000
	6-2	Transmission Projects	2,574,000
	6-3	Y-104 Multi-Year Project	2,884,000
			10,399,000
7.0	**Corporate**		
	7-1	Corporate Services	300,000
	7-2	Information Technology	914,000
			1,214,000
Sub-total			**30,366,000**
8.0	**Capitalized General Expense**		494,000
9.0	**Interest During Construction**		200,000
Less: Customer Contributions			(400,000)
Total			**$ 30,660,000**

4.0 GENERATION

Maritime Electric's three on-Island generation facilities are primarily back up supply sources. Those facilities are:

Charlottetown Thermal Generating Station		
("CTGS or "Charlottetown Plant")	5 Generators	55 MW
Borden Generating Station	2 Generators	40 MW
Charlottetown Combustion Turbine No. 3 (CT3)	1 Generator	50 MW

Although the primary role of Maritime Electric's generation is backup for the existing submarine cables, benefits are also realized through reduced purchased energy costs. The annual value of the avoided capacity and operating reserve purchases supplied by these facilities is approximately $4.8 million, based on the current Energy Purchase Agreement with NB Power. In addition, this generation provides on-Island supply in times of supply curtailment from off-Island energy suppliers. They also supply energy during transmission line outages or curtailments on the mainland or PEI.

The Generation Capital Budget is made up of projects required to keep the generating facilities in a state of readiness to meet operating considerations, reliability requirements and safety requirements. These requirements and considerations are set out in the Company's Energy Purchase Agreement with NB Power, safety regulations, Provincial boiler inspection branch recommendations, cable overloading, contingency planning and insurance requirements.

As the CTGS is approaching the end of its life, Management has concluded that a new combustion turbine (CT4) located at the Charlottetown Plant site is required to ensure the continued, long-term reliability of the PEI energy supply system. This new unit will enable the timely transition of the thermal units at the CTGS to long-term layup and eventually retirement. There is no capital budget provision in this Application for CT4. The Company has filed an Application seeking approval to proceed with the design, construction and commissioning of a new CT4.

Recognizing that the thermal generating units at CTGS are required for the medium-term, an assessment was conducted earlier this year to identify immediate concerns with the equipment in terms of safety and reliability. The assessment has resulted in further inspection and testing to be carried out in 2015 and 2016.

4.1 Charlottetown Plant Buildings and Services Projects ***$ 98,000***

This category includes expenditures required for buildings and support systems for the Charlottetown Plant facilities. Support systems include but are not limited to:

- Energy Control Centre (ECC) provides 24 hour operation of the Maritime Electric electrical system including energy purchases, load and wind forecasting, generation dispatch and line crew dispatch;
- River Pumphouse provides cooling water for the thermal generation units at the Charlottetown Plant;
- Fuel tanks provide storage of fuel for a minimum of 7 days generation at full load;
- Lighting within the Charlottetown generation facilities; and
- Other equipment such as sump pumps and fuel pipe lines.

a. Charlottetown Plant Roof Replacements **$ 52,000**

The annual roof inspection carried out in 2014 identified several new areas which require replacement because the surface which protects the underlying roof materials has deteriorated. Failure to complete this work could lead to roof leaks, causing damage to plant equipment located below such as: Boiler No. 5, Turbine No. 8, Lube Oil Stores and No. 2 Station Service equipment.

b. Charlottetown Plant Miscellaneous Buildings and Services **$ 46,000**

A provision has been made for a number of smaller projects which have been identified for the Charlottetown Plant. These items are provisional in nature and are based on past expenditures and include Parts Storage Improvements, Door and Window Replacements, Process Pipeline Replacements, Plant Lighting Systems, Safety Equipment, Sump Pump Replacements and ECC Renovations.

4.2 Charlottetown Plant Boiler Projects ***$ 283,000***

These expenditures relate to the boilers and boiler systems associated with the Company's thermal generating units. Boilers typically include numerous sub-systems required for operation such as: fuel oil system, combustion air system, burner safety management system, auxiliary steam system, feedwater system, sootblower system, boiler chemicals system, instrument air system, boiler furnace, boiler steam tubing, smoke stacks, emission monitoring system, boiler control and emission control equipment.

a. Waste Water Treatment (WWT) – Sand Filter Replacement $ 87,000

In 2011, there were issues with the WWT Sand Filter which resulted in temporary repairs to the system. This amount provides for the complete refurbishment of the Sand Filter should it be necessary following a thorough inspection.

b. Miscellaneous Boiler Projects $ 196,000

A provision has been made for a number of smaller boiler projects which have been identified at the Charlottetown Plant.

- Miscellaneous Tool Replacements $ 14,000

  This is a provisional amount to purchase new or replacement tools for the Plant's Electrical and Instrumentation Shop.

- Large Motor Refurbishment $ 27,000

  Based on experience a provisional amount is included in the budget to rewind a large motor each year.

- Miscellaneous Boiler Improvements $ 100,000

  Each year the Plant's power boilers are inspected before being laid up for the Summer. These inspections identify tube replacements and upgrades that must be completed before the next startup. This provisional amount is contingent on inspection results.

- Boiler Insulation Replacement Improvements $ 55,000

  The Plant was constructed during a period when insulating materials often contained asbestos. This insulation degrades over time and must be replaced to prevent airborne Asbestos Containing Material (ACM) from endangering the health of workers. The Company has a policy of immediate replacement of any ACM found to be in poor condition. This is a provisional amount based upon past experience for asbestos replacement related to the steam boilers.

4.3 Charlottetown Plant Turbine-Generator Projects *$ 680,000*

This section covers expenditures associated with the steam turbines, generators and the 50 MW Combustion Turbine (CT3). The steam turbines and generators include such systems as: main steam system, auxiliary steam system, bleed steam system, lube oil system, relay oil system, cooling and auxiliary cooling water systems, air extraction system, condensate system, generator excitation system and vibration monitoring system.

a. Turbine/Generator Overhaul on Unit No. 7 $ 429,000

Maritime Electric retained the services of a generation engineer to review the Charlottetown Plant to identify areas of risk related to the safe and reliable operation of the equipment for the near term. The report recommended two items for Unit No. 7:

- Inspection of the end rings which was conducted in June 2015 and were found to be adequate given the anticipated standby operation of the unit; and

- The overhaul of Turbine/Generator No. 7. The overhaul is to address immediate safety concerns and reliability issues. The amount for 2016 is provisional based on findings.

b. Miscellaneous Turbine Projects $ 251,000

A provision has been made for a number of smaller reoccurring projects for the turbines at the Charlottetown Plant:

- Turbine Insulation (Asbestos) Replacement $ 67,000

  The Plant was constructed during a period when insulating materials often contained asbestos. This insulation degrades over time and must be replaced to prevent airborne Asbestos Containing Material (ACM) from endangering the health of workers. The Company has a policy of immediate replacement of any ACM found to be in poor condition. This is a provisional amount based upon past experience for asbestos replacement associated with the steam turbines.

- Steam Turbine Improvements $ 31,000

  Each year the Plant's steam turbines are inspected before being laid up for the Summer. These inspections identify replacements and upgrades that must be completed before the next startup. This provisional amount is contingent on inspection results.

- Combustion Turbine Improvements and Spare Parts $ 153,000

  This provisional amount is to address any operational deficiencies that arise during the year and allows for the acquisition of additional spare parts to accommodate the increased maintenance required. With the increase in load above the submarine cable limits and the increased number of transmission restrictions in New Brunswick, CT3 is expected to be called upon more and more to operate to meet load requirements.

4.4 Borden Plant Projects *$ 154,000*

This category provides for expenditures related to the facilities at the Borden Plant which are stand-by and peaking units that also supply ancillary services needed for reliability purposes. The Borden Plant houses two diesel fueled combustion turbines (CT1 and CT2) are rated at a combined 40 MW. This facility also includes: three diesel fuel storage tanks, a fuel tanker truck offloading facility, a maintenance building, two control rooms, lube oil storage building, a storage building for a spare length of submarine cable and a 69 kV substation with two step-up transformers.

a. New Roof for Service Building $ 58,000

During the annual roof inspection, it was identified that the existing roof can no longer be repaired and is in need of replacement.

b. Miscellaneous Borden Projects $ 96,000

A provisional amount, based on previous experience, is included in the budget each year for needed repair work including sandblasting, metal patching and replacement and painting. Additional provisional amounts have been included to source spare parts and implement turbine improvement work identified during the year.

5.0 DISTRIBUTION

Maritime Electric's proposed 2016 Distribution Capital Budget continues to be driven by the need to replace aged infrastructure, install new facilities to service new customers and to address load growth through the expansion of existing facilities and the addition of new facilities.

The Company's Field Audit and Assessment database is the primary tool used to identify assets for priority of replacement. While the Company continues with its pole replacement activities, Management is again seeking to maintain its efforts to replace aged Distribution Equipment – Section 5.7 to support continued improvements to system reliability.

5.1 Replacements Due To Storms, Fire, Collisions and Road Alterations *$ 1,042,000*

This is a provisional amount, based on historical expenditures, for distribution asset replacements due to storms, motor vehicle accidents, fire and road alterations.

a. Replacements due to Storms, Fire and Collisions $ 521,000

Due to the unpredictability and extent of the damage caused by storms and adverse weather events, a provisional amount for the replacement of distribution equipment (predominantly poles and wire) is budgeted. This budget allows for the labour and material to replace damaged equipment.

b. Replacements due to Road Alterations $ 521,000

This is a provisional amount to relocate or replace distribution lines as a result of Government road or highway projects such as sidewalk installations, sewer or water line extensions, road widening, roundabouts and bridge replacements. These projects are requested by Provincial or Municipal Governments. At the time of preparing the Capital Budget, the timelines and scope of Government projects in 2016 are not known in detail and as such a provisional amount has been budgeted.

5.2 Distribution Transformers — *$ 3,219,000*

This provides for the purchase and installation of new transformers and related equipment to serve new customers, changeouts to address load growth for existing customers and to replace deteriorated units identified through the Company's Spill Prevention Program.

Pole Mounted kVA	
5 Year Average Annual Requirement	34,100 kVA
Spill Prevention Program	2,800 kVA
Total	36,900 kVA

Cost				
Purchase	36,900 kVA @	$59.50/kVA	$2,195,000	(Rounded)
Installation	36,900 kVA @	$14.50/kVA	535,000	(Rounded)
Sub-total			$2,730,000	(Rounded)

Pad Mounted kVA				
5 Year Average Annual Requirement	13,400 kVA			
Cost	13,400 kVA @	$36.51/kVA	$489,000	(Rounded)

Total (Rounded) $3,219,000

5.3 Services and Street Lighting ***$ 4,623,000***

This amount provides for construction of service lines to serve new customers, replacement of aged service lines, the provision of street and yard lighting as requested by customers and the replacement of existing lighting with LED fixtures. These expenditures (and those in Section 5.4) are expected to be partially offset by customer contributions.

a. Service Lines

Estimate:	Single phase	$2,359,000		
	Three phase	$845,000	**$**	**3,204,000**

b. Underground Service Lines

Estimate:	Single phase	$360,000		
	Three phase	$259,000	**$**	**619,000**

c. Street and Yard Lighting **$ 800,000**

The Company continues with the replacement of high pressure sodium (HPS) and mercury vapor fixtures with LED fixtures under the Commission approved 10 year conversion program. This budget amount provides for the replacement of approximately 750 LED streetlights through the conversion program. The budget amount also includes the installation of approximately 150 LED street and yard lights based upon the historical level of customer requests and the replacement of approximately 150 HPS streetlights due to the fixtures reaching the end of their useful life.

5.4 Line Extensions *$ 2,344,000*

This amount provides for the extension of single phase and three phase distribution lines to serve new customers and includes three new distribution feeders from the proposed New Glasgow Substation in Section 6.1 and one new feeder from the Charlottetown Airport Substation to be constructed in 2015. The new feeder from the Charlottetown Airport Substation is a second feeder that is approximately 2 kilometres long. This feeder is required to address load growth at the Airport Industrial Park, the Bio Commons Research Park and surrounding area. The three new feeders from the proposed New Glasgow Substation includes the construction of 5 kilometres of three phase distribution along New London Road towards Stanley Bridge and 3 kilometres of double circuit three phase distribution along New London Road towards Route 13. The exact location of the proposed substation has not been determined as yet so these distances are approximate.

In addition, long single phase extensions to accommodate new seasonal customers and line extensions due to area load growth continue to be key factors in the level of capital expenditures in this account. These expenditures, like those in Section 5.3, are expected to be partially offset by customer contributions.

5.5 Line Rebuilds *$ 3,145,000*

The Company's Field Audit and Assessment database is the primary tool used to prioritize single phase and three phase line rebuilds, pole for pole replacements, porcelain cutout replacements and other reliability improvement activities. These expenditures will allow the Company to address the timely replacement of aged infrastructure, improve reliability and voltage levels and reduce losses. Telecommunication companies also periodically request pole replacement to accommodate additional communication infrastructure. These expenditures are often partially offset by a contribution from these third parties.

a. Single Phase and Three Phase Rebuilds $ 2,160,000

This amount provides for the rebuilding of distribution lines including joint use lines. Lines are prioritized for rebuild based on the condition of the poles and wire, the length of the spans, historical reliability issues associated with the line and historical load growth. These rebuilds improve both reliability and voltage, allow for future load growth and, in many cases, will lead to a reduction in losses. With a greater priority weighting given to pole condition and wire size, the majority of the rebuilds planned for 2016 will be in areas containing eastern cedar poles that are 40 years or older and are carrying distribution lines with inadequate wire size to properly serve the load. These projects include a 2.8 kilometre rebuild on the Brackley Point Road (between Black River Road and Portage Road), a 14 kilometre rebuild in Earncliffe and a 7.4 kilometre rebuild in Seacow Pond. These planned line rebuilds are summarized in the following Table 2:

Table 2
Proposed Line Rebuilds for 2016

Rebuild Location	Line #	KM	# of Phases	Comments	2014 Customer Hrs.	2013 Customer Hrs.	2012 Customer Hrs.
Brackley Point Road (Black River Rd to Portage Rd)	WR01682	2.8 km	Three Phase	42% of the line has eastern cedar poles. Poles and insulators are in poor condition. 80% of the line has double-skirted porcelain insulators. Distribution line feeds 210 customers.	0	0	0
Earnscliffe	CR04414/ CR04423/ CR04433/ CR04454/ CR04495	14 km	Single Phase	100% of the line has eastern cedar poles. Poles and wire are in poor condition. Distribution line feeds 108 customers. Reliability has been poor over the last 3 years. Rebuilding the line will increase reliability and reduce losses over the life of the line.	23	30	137
Seacow Pond	AL00276	7.4 km	Three Phase	42% of the line has eastern cedar poles. Poles and crossarms are in poor condition. Distribution line feeds 77 customers.	77	0	0

b. Pole for Pole Replacement **$ 400,000**

The distribution system has approximately 120,000 distribution poles. The proposed budget amount is to be used to replace approximately 350 individual poles identified as being deteriorated and reaching the end of their useful life.

c. Porcelain Cutout Replacement Program **$ 585,000**

There are approximately 19,980 porcelain cutouts currently installed in the distribution system. The failure of porcelain cutouts continues to present reliability and employee safety concerns. The Company continues to prioritize the replacement of porcelain cutouts and is targeting the replacement of approximately 1,500 cutouts in 2016.

5.6 System Meters ***$ 635,000***

This amount provides for the purchase and installation of revenue metering and associated equipment. Details of the amounts are as follows:

a. Watt-hour Meters **$ 302,000**

The provision for Remote Interrogation (RI) watt-hour meters includes 450 for new services at single detached homes and multi-family residences in 2016, an inventory of new RI watt-hour meters to permit sample testing of meter accuracy to ensure compliance with Industry Canada/Measurement Canada standards and an allowance for replacement of damaged meters. The frequency of testing sample groups of electronic meters is less compared to electro-mechanical meters. In 2015, the first sample groups of RI meters installed 10 years ago were tested for accuracy and resulted in the maximum 8 year life extension period. The forecast of new RI watt-hour meters required for 2016 is based upon the sample groups scheduled for testing, anticipated rate of customer growth, and historical equipment damage rates.

Customer growth, testing and replacement due to damage	600
Network and three phase meters	370
Total	970

Installed Cost: 970 meters @ $311 $302,000 (Rounded)

b. Combination Meters **$ 193,000**

Conversion to RI technology for combination meters (meters capable of capturing both demand and energy consumption data) will be substantially completed in 2015.

The amount for 2016 provides for customer growth and replacements due to aging or failures based on historical averages. The unit cost of these meters reflects the purchase of higher cost equipment to measure generator and interconnection inputs.

Customer Growth	52
Replacements due to aging, failure	52
Total	104

Installed Cost: 104 meters @ $1,856 $193,000 (Rounded)

c. Miscellaneous Metering Equipment **$ 56,000**

This provides for miscellaneous metering equipment such as potential and current transformers installed in commercial customers' electrical services, wiring and metering supplies, security bands, sealing rings and colored indicator tags. Other miscellaneous equipment includes locks, clear meter covers, jumpers, load limiters and meter adapters.

d. Outdoor Metering Tanks **$ 84,000**

The Company has identified the replacement of pre-1982 oil filled metering tanks in Alberton and St. Eleanor's Substation as a priority for 2016. As well, this budget includes a provision for an additional two substation metering tank upgrades based on continued increases in load growth.

5.7 Distribution Equipment — *$ 1,778,000*

a. System Equipment — $ 1,584,000

This provides for the replacement of aged equipment used to provide voltage support, communications, protection and control of the distribution assets. The ongoing investment in system equipment is essential to providing low cost reliable service to customers. Unplanned failures due to aged equipment tend to be costly and reduce reliability of service to customers. Some of these assets require replacement parts that extend the life of the asset while others require a complete replacement. The Company continuously monitors the age and condition of assets to assess the need for life extension or replacement, whichever is more economical in the long run. The items identified for replacement in 2016 are identified in Table 3 below:

Table 3

Proposed System Equipment Replacement for 2016

System Equipment Description	Material	Labour	Total
Voltage Regulators, Reclosers and Controllers	**$ 373,000**	**$ 238,000**	**$ 611,000**
Electronic Reclosers	81,000		
Recloser Controllers to Replace Obsolete FXB Controllers	12,000		
Voltage Regulator Controls Replacement	20,000		
Two sets (6) - Voltage Regulators	130,000		
Capacitor Bank Controllers	10,000		
Capacitor Banks and Parts	20,000		
Voltage Regulator and Recloser Parts	10,000		
Distribution Connected Capacitors	90,000		
Circuit Breaker and Power Transformer Upgrades	**$ 121,000**	**$ 77,000**	**$ 198,000**
Power Transformer Parts (Pressure Relief Devices/Fall Arrest Mounts)	6,000		
Transformer Oil	30,000		
Transformer Oil Reconditioning	10,000		
69 kV and 138 kV Breaker Contacts	25,000		
Annual Dissolved Gas Analysis	25,000		
Tap Changer Contacts - Auto Transformer	25,000		
Teleprotection and Relay Replacement	**$ 120,000**	**$ 77,000**	**$ 197,000**
Teleprotection/Relay Replacement Equipment	120,000		
Communication Equipment	**$ 253,000**	**$ 162,000**	**$ 415,000**
Aging Battery Bank Replacement	20,000		
Replacement of LEDR Radios (2 sites per year)	20,000		
Communication Equipment - Replacements	20,000		
Communication Equipment - New Substations	40,000		
SCADA RTU Retro - Fit Parts	10,000		
SCADA Master Station Upgrade	140,000		
Vehicle Antenna (Radio and RF Meters)	3,000		
Distribution	**$ 85,000**	**$ 54,000**	**$ 139,000**
Recloser By-Pass Switch	20,000		
13.8 kV City Circuits Switches	50,000		
Voltage Regulator By-Pass Switch	15,000		
Test Equipment	**$ 24,000**	**$ -**	**$ 24,000**
Doble Power Factor Test Equipment	24,000		
Total	**$ 976,000**	**$ 608,000**	**$ 1,584,000**

b. **Meter Shop Equipment** **$ 26,000**

This budget amount provides for the purchase of power quality test equipment, voltmeters and meter test equipment as required.

c. **Line Equipment** **$ 168,000**

This budget amount provides for the replacement of line test equipment such as hotline sticks, phasing sticks, potential indicators, underground fault finder, line safety equipment such as hard cover-up and fall arrest equipment and material handling equipment such as presses and dies, running blocks and chain hoists.

5.8 Transportation Equipment *$ 752,000*

The Company's transportation fleet consists of large line vehicles with boom and/or digger attachments, cars, small trucks, vans, pole and wire trailers and other equipment. Large line vehicle replacements are planned based on the age and condition of the unit. The life span of these units average from 10 to 12 years with the aerial units lasting longer than the digger units. Small vehicle replacements depend on age, mileage and type of service; however, the life span averages from 5 to 10 years. The following Table 4 outlines the vehicles proposed for replacement in 2016:

Table 4
Proposed Vehicle Replacements

	Vehicle Replaced	Description	Location	Age (Yrs)	Replacement Cost
1.	08-05-72	F-150 4x4 Ext Cab	Western Line Department	8	$ 38,000
2.	New	½ ton Truck	Central Line Department	N/A	$ 38,000
3.	07-06-24	½ ton Truck	Technical Services Department	7	$ 38,000
4.	09-04-09	CRV	Meter Reading Department	7	$ 38,000
5.	10-10-13	CSUP Truck	Central Line Department	6	$ 188,000
6.	09-12-50	Used Tracked Aerial Device Digger/Bucket	Central Line Department	7	$ 294,000
7.	New	Small SUV	Engineering Department	N/A	$ 38,000
8.	Allowance for unforeseen capital expenditures				$ 80,000
Total					$ 752,000

The two new fleet vehicles reflect the need to expand field supervision which will increase with the submarine cable interconnection project and other planned activities.

6.0 TRANSMISSION

The Transmission category reflects the Company's activities for the expansion and replacement of the 138 kV and 69 kV transmission system. This includes transmission lines, substations, power transformers and protection devices such as circuit breakers.

Based on recent trends in load growth, the Company anticipates that several substations and transmission line extensions, upgrades and replacements will be required in the future. Construction of the multi-year Y-104 Transmission Line Project continues in 2016 with the construction of a 20 kilometre section from the Settlement Road to the Cardigan Road.

6.1 Substation Projects — *$ 4,941,000*

a. New Glasgow Substation — $ 1,374,000

Due to increased load growth in the area, the construction of the New Glasgow Substation is required to offload both the Hunter River and Rattenbury Substations. The Hunter River Substation is forecast to be overloaded in early 2017 while the Rattenbury Substation is forecast to exceed its capacity in the summer of 2018. The construction of the new 69 kV/12.5 kV New Glasgow Substation will include procurement, installation, testing and commissioning of a new 7.5/10 MVA transformer, new voltage regulators, reclosers, protection and control equipment.

b. Mobile 138/12.5 kV Transformer — $ 1,305,000

A new 10 MVA 138/12.5 kV transformer will be ordered in 2015. Due to the expected long delivery time, 20 per cent of the transformer value (approximately $488,000 based on $2.4 million estimated cost) was approved by the Commission in the 2015 Capital Budget and will be paid in 2015. An updated estimated price of $1.793 million was obtained at the beginning of 2015 and the balance of approximately 73 per cent of the new estimated price will be paid in 2016 upon delivery. This transformer will serve as a backup replacement in the event of the

failure of West St. Peters Substation transformer and any other 138/12.5 kV transformers installed in the future.

c. 69 kV Breaker Replacement Program $ 427,000

This is a provision to replace four 69 kV breakers as part of a breaker replacement program. The breakers will be replaced based on test results, age and severity of the impact on the system in the event of failure. There are 11 breakers that are over 40 years old. The Company continuously monitors the condition of breakers to assess the need for life extension or replacement, whichever is more economical.

d. Automation Project $ 61,000

The Substation Automation Project will provide the infrastructure to make data collected from substation equipment available to more users. Engineering, Energy Control Centre and Line Operations will be able to remotely access relay information which will help locate faults, improve restoration time and therefore increase reliability. Additionally, remote interrogation of relay information will enhance system performance analysis. The Charlottetown Substation automation and integration will be the focus for 2016.

e. Transmission System Capacitors $ 1,661,000

System Planning has identified the need to add static voltage support devices at the Charlottetown and Lorne Valley Substations. These switchable capacitors will help support Charlottetown and Eastern PEI voltages during both normal and contingency system operations. They will lower the current flowing through the West Royalty transformers, delaying by several years the need to either uprate the existing transformers or add a fourth West Royalty transformer. The higher 69 kV system voltage resulting from these capacitor additions will yield a reduction in transmission system losses.

f. **Cherry Valley Substation** **$ 82,000**

This is a provision for the Environmental Impact Assessment and land purchase for a new substation in the Cherry Valley area planned for 2017 to offload the Crossroads Substation that is forecast to be overloaded in the winter of 2018.

g. **Miscellaneous Projects** **$ 31,000**

This is a provision for substation fence upgrades and other capital upgrades required in Company substations.

6.2 Transmission Projects *$ 2,574,000*

a. 69 kV and 138 kV Switch Program $ 440,000

This amount is to purchase and install three 69 kV switches on transmission line T-1 for the New Glasgow Substation. In addition, there is a plan to upgrade and extend the life of existing 69 kV and 138 kV switches. Specific upgrades and life extensions are planned for switches on 138 kV transmission lines at the West Royalty, Bedeque, Sherbrooke and Borden Substations.

b. Transmission Line Refurbishment $ 850,000

The 69 kV and 138 kV transmission lines are the backbone of the Company's electric delivery system. This amount provides for the life extension activities of the transmission system and ensures system reliability. The following projects are planned for 2016:

- Completion of priority deficiencies found on the 138 kV Y-109 and Y-111 transmission lines from West Royalty to Bedeque, 69 kV T-5 transmission line from Sherbrooke to Wellington and the 69 kV T-23 transmission line.

- Completion of replacements resulting from a ground inspection of 69 kV transmission lines T-2, T-12 and T-21 that will establish priority capital refurbishment projects.

c. Insulator Replacement on T-10 $ 254,000

This amount provides for the replacement of 1960's vintage porcelain insulators and wooden crossarms with new armless synthetic insulators on the section of the 69 kV transmission line T-10 from Victoria Cross to the Dover Substation.

d. T-1 Line Extension to New Glasgow Substation $ 1,030,000

This is a provision to build 9.5 kilometres of new 69 kV transmission line from T-1 on Route #2 to the New Glasgow Substation.

6.3 Y-104 Multi-Year Project *$ 2,884,000*

This is a provision to build 20 kilometres of 138 kV transmission line from Settlement Road to Cardigan Road in 2016. This will complete approximately 75 per cent of the 82.5 kilometre transmission line which is planned to be completed in 2017.

The following Table 5 outlines the estimated annual costs for the multi-year Y-104 transmission line project.

Table 5 Estimated Annual Costs Y-104 Transmission Line			
	Y-104 Project Description	**KM**	**Actual/ Proposed Cost**
2012	Church Road 45/60/75 MVA Auto-Transformer, 138 kV Breaker and Bay		$ 2,686,000
2012	EIA for Mount Stewart Road - Route 22 to Church Road Substation		100,750
	Total 2012		**$ 2,786,750**
2013	Easements from existing T-4 to Church Road Substation		117,760
	Total 2013		**$ 117,760**
2014	Riverside Bypass West Royalty Substation to Acadian Drive	7	944,380
2014	Scotchfort Substation to West St. Peter's Substation	13	1,753,845
2014	West St. Peter's Substation (installation deferred to 2015)		36,000
2014	West Royalty 138 kV Breaker (installation deferred to 2015)		152,525
	Total 2014		**$ 2,886,750**
2015	West St. Peter's Substation to Settlement Road	2.5	350,000
2015	Acadian Drive to Scotchfort	20	2,850,000
2015	West St. Peter's 138 kV Transformer		714,000
2015	West St. Peter's Substation (installation deferred from 2014)		801,000
2015	West Royalty 138 kV Breaker (installation deferred to 2014)		98,000
	Total 2015		**$ 4,813,000**
2016	Settlement Road to Cardigan Road	20	2,884,000
	Total 2016		**$ 2,884,000**
2017	Church Road 138 kV Breaker		700,000
	Cardigan Road to Church Road Substation	20	2,884,000
	Total 2017		**$ 3,584,000**
TOTAL		82.5	**$ 17,072,260**

The above total estimated cost may vary in future years depending on the final transmission route and system configuration.

7.0 CORPORATE

7.1 Corporate Services *$ 300,000*

The following projects are required to ensure the safety, security and efficient operation of the Company's facilities.

a. Substation Entrance Resurfacing – West Royalty $ 55,000

This provides for the resurfacing of the asphalt entranceway to the West Royalty Substation. This Substation is an integral component of the Company's transmission system which requires frequent onsite preventative maintenance and monitoring activities resulting in increased levels of traffic at the facility. Damage to the entranceway caused by winter frost and high volumes of water run-off have been repaired on a temporary basis so that employees can continue to gain access with the necessary equipment. Activities under this budget provision include milling and removal of the existing damaged asphalt, base preparation and application of new asphalt.

b. Service Centre Improvement Plan –
West Royalty Service Centre $ 200,000

Since acquiring the West Royalty Service Centre in 1989 to serve as the base of T&D Operations for Central PEI, the redeployment of personnel and equipment at the Service Centre has risen to meet customer needs. Users of the facility indicate there are opportunities to improve the use of the Service Centre and increase efficiencies in a number of areas.

To ensure that the facility is operated as efficiently as possible, the Company plans to conduct a detailed review of the Service Centre and identify areas for improvement. One such improvement identified in 2015 is the implementation of a secondary heating source. Heat pump technology will be installed to supplement the existing propane based system which will result in overall lower energy costs for the facility. Phase 1, of a three year conversion plan, will see the

office space converted to heat pump technology to provide both heating and cooling services at an estimated cost of $100,000. The remainder of the proposed budget is a provisional amount to begin, in 2016, to address other efficiencies identified.

c. Unforeseen Capital Expenditures $ 45,000

This amount provides an allowance for unforeseen capital expenditures at all Company properties.

7.2 Information Technology — *$ 914,000*

The Company recognizes the critical role that Information Technology (IT) plays in meeting its objectives. To this end, the Company proposes to invest in the following initiatives.

a. Hardware Acquisitions — $ 450,000

Included in the provision for hardware acquisitions is a budget of $240,000 for the replacement of the Company's storage area network and server farm. The current hardware was purchased in 2010 with a life expectancy of three to five years.

Servers	$ 270,000
Communications Equipment	50,000
Personal Computers	40,000
Printers	10,000
Installation Costs	80,000
Total	$ 450,000

b. Purchased Software and Upgrades — $ 251,000

Microsoft Suite	$ 90,000
Great Plains Financials	30,000
ESRI Mapping System	35,000
Software Development Tools	28,000
Smaller Miscellaneous Software	43,000
Installation Costs	25,000
Total	$ 251,000

c. Network Security Review $ 40,000

This provides for a review and analysis of the Company's computer network by an external security specialist. The review evaluates the many facets of security against the latest trends in criminal cyber activity. Maritime Electric has adopted a two phased approach to the review. In phase one (to be completed in 2015), the review is completed, recommendations assessed and a work plan developed. In phase two (2016), the work plan is implemented and evaluated. This amount is a provision to complete the phase two work.

d. Vegetation Management $ 53,000

Trees that grow too close to electric power lines can create a serious public safety hazard and can also cause interruptions to electrical service. Originally approved by IRAC for 2015 but deferred due to a change in priorities, this budget amount will be used to create a system to assist the Operations group in managing this risk. The system will incorporate provincial GIS forestry data and allow operations staff to better monitor and forecast tree trimming projects.

e. Line Management System $ 45,000

This system is used by the Company's Draftsperson to manage the distribution system connectivity across the Island. The system also tracks what transformers are connected to which lines. This data is used by several other systems including the Customer Information System, Mapping and Outage Restoration. The current solution was developed in the late 90's and uses technology that is no longer supported. This project will see the system replaced and redesigned to increase functionality as well as improve integration.

f. **Remote Metering** **$ 40,000**

The Metering Department is responsible for remotely collecting meter readings and load interval data from a variety of key facilities across the Island. These critical locations include substations, large industrial customers and wind farms. This project will see both the hardware and software that manages this process upgraded.

g. **Financial System Upgrade** **$ 35,000**

This amount will be used to upgrade the Microsoft Great Plains Software that is used to manage the Company's financials. The current version went into production in 2012 and, based on new releases from Microsoft, is due to be upgraded. The project will be a joint effort between Finance, IT and external consultants.

8.0 CAPITALIZED GENERAL EXPENSE *$ 494,000*

This amount includes a portion of administrative costs (predominately labour) that are properly recognized as part of the Company's overall capital expenditure program. These recurring expenditures represent an allocation of administrative costs, not specific to any one capital project, but rather as part of the overall development, implementation and management of the Company's capital budget program.

9.0 INTEREST DURING CONSTRUCTION *$ 200,000*

This represents an allowance for the cost of funds used during the construction of certain assets. It is reflected in the accounts as an offset to financing costs and is based on the Company's cost of borrowing. This amount is allocated to fixed assets and recovered through amortization over the life of the assets.

10.0 PROPOSED ORDER

C A N A D A

PROVINCE OF PRINCE EDWARD ISLAND

BEFORE THE ISLAND REGULATORY
AND APPEALS COMMISSION

IN THE MATTER of Section 17(1) of the Electric Power Act (R.S.P.E.I. 1988, Cap. E-4) and **IN THE MATTER** of the Application of Maritime Electric Company, Limited for an order of the Commission approving the 2016 Annual Capital Budget and for certain approvals incidental to such an order.

UPON receiving an Application by Maritime Electric Company, Limited (the "Company") for approval of the Company's capital budget for year 2016;

AND UPON considering the Application and Evidence filed in support thereof;

NOW THEREFORE, for the reasons given in the annexed Reasons for Order and pursuant to the Electric Power Act;

IT IS ORDERED THAT

The capital budget application of the Company, filed herein on July 30, 2015 and summarized below is approved:

2016 Capital Budget Summary		
Corporate	$	1,214,000
Generation		1,215,000
Distribution		17,538,000
Transmission		10,399,000
General Expense Capitalized		494,000
Interest During Construction		200,000
Total	$	31,060,000
Less: Contributions		(400,000)
Total (Net)	$	30,660,000

DATED at Charlottetown, Prince Edward Island, this ___ day of _____, 2015.

BY THE COMMISSION:

_____

Chair

_____

Commissioner

_____

Commissioner

_____

Commissioner

APPENDIX A

Summary of Capital Expenditures
(2007 – 2016)

Maritime Electric

Maritime Electric Company, Limited Summary of Capital Expenditures (2007-2016)											
	2007	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2015**	**2016**
	Actual	**Actual**	**Actual**	**Actual**	**Actual**	**Actual**	**Actual**	**Actual**	**Budget**	**Forecast**	**Budget**
Generation											
Charlottetown Plant and CT3	1,454,480	1,645,014	907,390	1,200,419	1,195,221	844,766	669,275	592,872	927,000	927,000	1,061,000
Borden Plant	666,496	162,289	1,263,651	75,334	600,300	59,333	881,322	1,468,960	283,000	283,000	154,000
	2,120,976	1,807,303	2,171,041	1,275,753	1,795,521	904,099	1,550,597	2,061,832	1,210,000	1,210,000	1,215,000
Distribution and Transmission											
Distribution	15,216,155	15,199,296	15,982,270	16,225,133	18,334,780	17,371,849	15,707,728	16,974,255	16,774,000	16,948,000	17,538,000
Transmission	4,387,363	12,226,942	5,437,318	2,195,688	2,476,363	3,305,468	4,106,795	6,462,871	7,690,000	7,690,000	10,399,000
	19,603,518	27,426,238	21,419,588	18,420,821	20,811,143	20,677,317	19,814,523	23,437,126	24,464,000	24,638,000	27,937,000
Corporate	765,915	732,796	547,743	750,794	979,447	997,025	757,930	979,141	944,000	944,000	1,214,000
Sub-total	22,490,409	29,966,337	24,138,372	20,447,368	23,586,111	22,578,441	22,123,050	26,478,099	26,618,000	26,792,000	30,366,000
Capitalized General Expense	1,845,861	1,982,504	2,190,512	2,179,629	371,689	263,704	350,331	388,730	455,000	455,000	494,000
Interest During Construction	409,683	319,302	321,691	317,828	333,182	295,027	298,913	368,486	200,000	200,000	200,000
	24,745,953	32,268,143	26,650,575	22,944,825	24,290,982	23,137,172	22,772,294	27,235,315	27,273,000	27,447,000	31,060,000
Less: Customer Contributions	(3,511,826)	(11,438,104)	(5,313,287)	(524,811)	(1,106,139)	(760,444)	(643,920)	(525,236)	(400,000)	(400,000)	(400,000)
Net Capital Expenditures	21,234,127	20,830,039	21,337,288	22,420,014	23,184,843	22,376,728	22,128,374	26,710,079	26,873,000	27,047,000	30,660,000

Note: Actual amounts above, where applicable, include amounts expended for approved carryovers from the previous year.