



June 29, 2012

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

Dear Commissioners:

Please find enclosed 10 copies of Maritime Electric's 2013 Capital Budget.

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

Yours truly,

MARITIME ELECTRIC

A handwritten signature in black ink, appearing to read "S. D. Loggie". The signature is written in a cursive style with a large, sweeping initial "S".

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

SDL19
Encl. as noted

C A N A D A

PROVINCE OF PRINCE EDWARD ISLAND

BEFORE THE ISLAND REGULATORY
AND APPEALS COMMISSION (the "Commission")

IN THE MATTER of the Application of
Maritime Electric Company, Limited for
approval of a 2013 Capital Budget.

1. Maritime Electric Company, Limited ("Maritime Electric") 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* engaged in the production, purchase, transmission and distribution of electricity in Prince Edward Island.
2. Maritime Electric has developed a Capital Budget for the year 2013. The budget includes capital expenditures of the usual sort.
3. Maritime Electric requests approval by the Commission of the 2013 capital expenditures described in this evidence attached as Schedule "A" and Maritime Electric hereby applies for such approval.
4. The proposed 2013 Capital Budget constitutes proposed capital expenditures to be made in 2013, for items which Maritime Electric requires in order to properly serve its customers.

5. Attached hereto as Schedule "B" is an affidavit attesting to the truth of the evidence in Schedule "A".

DATED this 29th day of June, 2012.

Maritime Electric Company, Limited



Thomas P. Laughlin, Counsel for the
Applicant whose address for service is:

65 Grafton Street, PO Box 2140

Charlottetown PE C1A 8B9

Telephone: (902) 629-4554

Facsimile: (902) 566-5283

E-mail: tlaughlin@smss.com



2013 CAPITAL BUDGET EVIDENCE

MARITIME ELECTRIC COMPANY, LIMITED
2013 CAPITAL BUDGET EVIDENCE

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MARITIME ELECTRIC COMPANY, LIMITED
2013 CAPITAL BUDGET EVIDENCE

INTRODUCTION

Under Section 17 (1) of the Electric Power Act, Maritime Electric (the “Company”) 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 2013 Capital Budget. Schedule 1-1 outlines the level of the Company’s actual and proposed capital expenditures over the 2004-2013 period.

MARITIME ELECTRIC COMPANY, LIMITED
2013 CAPITAL BUDGET EVIDENCE
SCHEDULE 1-1
SUMMARY OF CAPITAL EXPENDITURES (2004-2013)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2012	2013
	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Budget	Forecast	Budget
Generation											
Charlottetown Plant	11,069,416	20,704,628	3,855,935	1,454,480	1,645,014	907,390	974,905	824,540	1,768,000	1,602,000	837,000
Borden Plant	110,617	407,981	132,664	666,496	162,289	1,263,651	64,719	600,300	1,205,000	27,000	560,000
Cable Preparatory Work	-	-	-	-	-	-	-	-	-	-	618,000
	11,180,033	21,112,609	3,988,599	2,120,976	1,807,303	2,171,041	1,039,624	1,424,840	2,973,000	1,629,000	2,015,000
Distribution and Transmission											
Distribution	9,874,267	10,785,945	11,291,216	15,216,155	15,199,296	15,982,270	16,066,121	18,108,162	17,572,000	17,572,000	18,540,000
Transmission	1,472,756	1,538,732	6,283,295	4,387,363	12,226,942	5,437,318	2,147,002	2,439,900	4,605,000	4,605,000	3,417,000
	11,347,023	12,324,677	17,574,511	19,603,518	27,426,238	21,419,588	18,213,123	20,548,062	22,177,000	22,177,000	21,957,000
Corporate	670,675	741,851	754,751	765,915	732,796	547,743	726,626	901,067	1,083,000	1,113,000	1,048,000
Sub-total	23,197,731	34,179,137	22,317,861	22,490,409	29,966,337	24,138,372	19,979,373	22,873,969	26,233,000	24,919,000	25,020,000
Capitalized General Expense	1,538,836	1,667,818	1,844,273	1,845,861	1,982,504	2,190,512	2,179,629	371,689	402,000	427,000	441,000
Interest During Construction	531,862	2,174,493	637,555	409,683	319,302	321,691	317,828	333,182	200,000	250,000	147,000
	25,268,429	38,021,448	24,799,689	24,745,953	32,268,143	26,650,575	22,476,830	23,578,840	26,835,000	25,596,000	25,608,000
Less: Customer Contributions	(820,622)	(615,754)	(657,278)	(3,511,826)	(11,438,104)	(5,313,287)	(532,001)	(1,106,139)	(275,000)	(325,000)	(275,000)
Net Capital Expenditures	24,447,807	37,405,694	24,142,411	21,234,127	20,830,039	21,337,288	21,944,829	22,472,701	26,560,000	25,271,000	25,333,000

MARITIME ELECTRIC COMPANY, LIMITED**2013 CAPITAL BUDGET EVIDENCE**

Generation	<u>2013</u>
G-1 Charlottetown Plant Buildings and Services Projects	\$ 268,000
G-2 Charlottetown Plant Boiler Projects	283,000
G-3 Charlottetown Plant Turbine-Generator Projects	286,000
G-4 Borden Plant Projects	560,000
G-5 Submarine Cable No. 3 Preparatory Work	<u>618,000</u>
	<u>2,015,000</u>
 Distribution	
D-1 Replacements due to Storms, Collision, Fire and Road Alterations	1,195,000
D-2 Distribution Transformers	3,574,000
D-3 Services and Street Lighting	3,842,000
D-4 Line Extensions	1,482,000
D-5 Line Rebuilds	4,100,000
D-6 System Meters	1,485,000
D-7 Distribution Equipment	1,805,000
D-8 Transportation Equipment	<u>1,057,000</u>
	<u>18,540,000</u>
 Transmission	
T-1 Substation Projects	1,337,000
T-2 Transmission Projects	<u>2,080,000</u>
	<u>3,417,000</u>
 Corporate	
C-1 Corporate Services	183,000
C-2 Information Technology	<u>865,000</u>
	<u>1,048,000</u>
 Sub-Total	 25,020,000
 Capitalized General Expense	 441,000
Interest During Construction	147,000
Less: Customer Contributions	<u>(275,000)</u>
 Total	 <u>\$ 25,333,000</u>

MARITIME ELECTRIC COMPANY, LIMITED
2013 CAPITAL BUDGET EVIDENCE

GENERATION

The Role of Maritime Electric On-Island Generation

Maritime Electric owns three on-Island generation facilities that are available on a stand-by basis. Those facilities are:

Charlottetown Thermal Generating Station	5 Generators	60 MW
Borden Generating Station	2 Generators	40 MW
Combustion Turbine # 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 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. It also supplies energy during transmission line outages in New Brunswick or PEI.

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

For 2013, the Company is continuing to defer projects at the Charlottetown Plant that relate to the life extension of the facility.

MARITIME ELECTRIC COMPANY, LIMITED
2013 CAPITAL BUDGET EVIDENCE

G-1 Charlottetown Plant Buildings and Services Projects \$ 268,000

The G-1 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.

1. Replace Box Culvert in Charlottetown Substation \$ 41,000

The box culvert in the Charlottetown Substation is showing signs of deterioration and represents a safety issue with staff. The box culvert will be replaced with a pre-cast concrete catch basin with manhole and will tie-in to existing storm sewer lines surrounding the Charlottetown Substation.

2. Roof Refurbishment \$ 123,000

During a roof inspection in 2010 Tremco, the roofing inspector, identified a section of roof over the "Old End Turbine Hall" and "Balance of Plant Area" for Combustion Turbine 3 (CT3) in need of repair. This budget amount will address the deficiencies found in the 2010 inspection.

MARITIME ELECTRIC COMPANY, LIMITED

2013 CAPITAL BUDGET EVIDENCE

- ECC and BCC Interior Renovations \$ 30,000
Operations have changed at the Energy Control Centre (ECC) over the past year making it necessary to make modifications to the facility. The modifications will re-locate the SCADA equipment, improve control room lighting and add a Day Shift Operator work station at the Backup Control Centre (BCC) in West Royalty.

MARITIME ELECTRIC COMPANY, LIMITED
2013 CAPITAL BUDGET EVIDENCE

G-2 Charlottetown Plant Boiler Projects \$ 283,000

The G-2 category expenditures are related 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 provision has been made for a number of smaller boiler projects which have been identified at the Charlottetown Plant.

- Miscellaneous Tool Replacements \$ 32,000
 This is a provisional amount to purchase new or replacement tools for the Plant's Electrical and Instrumentation Shop.
- Large Motor Refurbishment \$ 16,000
 Based on experience a provisional amount is included in the budget to rewind a large motor each year.
- Miscellaneous Boiler Improvements \$ 105,000
 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 upon these inspection results.

MARITIME ELECTRIC COMPANY, LIMITED

2013 CAPITAL BUDGET EVIDENCE

- Boiler Insulation Replacement Improvements \$ 130,000

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.

MARITIME ELECTRIC COMPANY, LIMITED**2013 CAPITAL BUDGET EVIDENCE****G-3 Charlottetown Plant Turbine-Generator Projects \$ 286,000**

The G-3 category 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.

1. Replace Generator Dehumidifier on Unit 9 \$ 35,000

The dehumidifier on Generator 9 is beyond its useful life and is in need of replacement. The dehumidifier is required during layup of the generator to ensure that there is no moisture accumulation in the generator that could have a negative impact on the generator windings. This budget amount provides for a new dehumidifier.

2. Miscellaneous Turbine Projects \$ 251,000

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

- **Turbine Insulation (Asbestos) Replacement \$ 125,000**

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.

MARITIME ELECTRIC COMPANY, LIMITED
2013 CAPITAL BUDGET EVIDENCE

G-4 Borden Plant Projects \$ 560,000

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 Generating Station houses two diesel fueled combustion turbines (“CT1” and “CT2”) 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.

1. Off Base Oil Cooler Replacement (CT1) \$ 188,000

This project consists of the replacement of the lube oil cooler for Combustion Turbine 1 (CT1) located in Borden. The current lube oil cooler has deteriorated to such a state that replacement is necessary.

2. Replacement of Fuel Pump and Lube Oil Cooler \$ 350,000

Spare parts are no longer available for the Lucas fuel pump, fuel control unit and lube oil cooler equipment and qualified service technicians are very hard to find. This project will replace all the Lucas equipment with components of modern manufacture.

3. Miscellaneous Borden Projects \$ 22,000

A provision has been made for enclosure renovations for both Borden units. The Borden units are located adjacent to the Northumberland Strait and thus salt spray can cause significant corrosion damage to the turbine enclosures. 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.

MARITIME ELECTRIC COMPANY, LIMITED

2013 CAPITAL BUDGET EVIDENCE

- Establish engineering parameters to determine optional cable transfer capacity.
- Determine the required Environmental Assessments and consultations for the subsea and PEI and NB land based installations.
- Refine the project cost estimates and, if financing terms and conditions permit, prepare a regulatory document for filing with IRAC seeking approval of Maritime Electric's component of the project.

Management is seeking approval to spend \$618,000 in 2013 which, along with a provision for interest during construction, would be carried as a deferred charge until such time as the submarine cable installation proceeds and financing arrangements have been finalized.

MARITIME ELECTRIC COMPANY, LIMITED
2013 CAPITAL BUDGET EVIDENCE

DISTRIBUTION

Maritime Electric's proposed 2013 Distribution Capital Budget continues to be driven by the need to replace aged assets and to add infrastructure to service new customers.

The Company's asset database continues to be used to select assets for priority replacement. While the Company continues with its pole replacement activities, commencing in 2013, Management is seeking to increase its efforts to replace aged Distribution Equipment – Item D-7. Much of this equipment is located within substations and its failure could result in large outages.

With the completion of the residential meter conversion project to remote interrogated (RI) units, Management proposes to commence the conversion of approximately 2,700 commercial meters to RI units beginning in 2013.

D-1 Replacements due to Storms, Collision, Fire and Road Alterations \$ 1,195,000

This is a provisional amount for replacements due to storms, motor vehicle accidents, fire and road alterations. The budget provision continues to provide for weather events and traditional levels of Government road widening activity. In addition, the budget provision includes work that may be required in Strathgartney due to road alterations and as a result of roundabout construction on Belvedere Avenue and Brackley Point Road.

MARITIME ELECTRIC COMPANY, LIMITED
2013 CAPITAL BUDGET EVIDENCE

D-2 Distribution Transformers \$ 3,574,000

This provides for the purchase and installation of new transformers and related equipment to serve new customers, address load growth for existing customers and to replace deteriorated units. An amount for the replacement of transformers under the spill prevention program is also included.

Pole Mounted kVA

5 year average annual requirement	39,300 kVA
Spill Prevention Program	<u>3,000 kVA</u>
Total	42,300 kVA

Cost

Purchase	42,300 kVA @	\$61.57/kVA	\$ 2,604,500 (Rounded)
Installation	42,300 kVA @	\$12.43/kVA	<u>526,000 (Rounded)</u>
Sub-total			<u>3,130,500 (Rounded)</u>

Pad Mounted kVA

5 year average annual requirement	12,500 kVA
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<u>Cost</u>	12,500 kVA @	\$35.48/kVA	<u>443,500 (Rounded)</u>
Total (Rounded)			<u>\$ 3,574,000</u>

MARITIME ELECTRIC COMPANY, LIMITED
2013 CAPITAL BUDGET EVIDENCE

D-3 Services and Street Lighting \$ 3,842,000

This amount provides for construction of distribution service lines to serve new customers, replacement of aged service lines and provision of street and yard lighting as requested by customers. These expenditures (and those in Item D-4) are expected to be partially offset by customer contributions.

1. Service Lines

Estimate: Single phase	\$ 1,984,500	
Three phase	\$ 1,165,500	\$ 3,150,000

2. Underground Service Lines

Estimate: Single phase	\$ 178,200	
Three phase	\$ 118,800	\$ 297,000

3. Street and Yard Lighting \$ 395,000

MARITIME ELECTRIC COMPANY, LIMITED
2013 CAPITAL BUDGET EVIDENCE

D-4 **Line Extensions** \$ 1,482,000

This amount provides for the extension of single phase and three phase distribution lines to serve new customers and reflects recent expenditures in this area. Long single phase extensions to accommodate new seasonal customers and extensions required due to area load growth continue to be key factors in the level of costs incurred in this account. These expenditures, like those in Item D-3, are expected to be partially offset by customer contributions.

MARITIME ELECTRIC COMPANY, LIMITED**2013 CAPITAL BUDGET EVIDENCE**

Rebuild Location	Line #	KM	# of phases	Comments	2011 Customers Hrs.	2010 Customers Hrs.	2009 Customers Hrs.	2008 Customers Hrs.	2007 Customers Hrs.
Annandale Rd.	DM5527	2.5 km	Three Phase	#2 ACSR conductor as well as 94% of the line has Eastern Cedar poles. Poles and wire in poor condition. Distribution Line feeds 143 customers. Also re-conductoring the line will reduce the losses over the life of the line.	0	0	0	0	0
Cape Bear Rd. (Rt. 18)	DV19210	5.3 km	Single Phase	#2 ACSR conductor as well as 90% of the line has Eastern Cedar poles. Poles and wire in poor condition. Distribution Line feeds 89 customers. Also re-conductoring the line will reduce the losses over the life of the line.	0	0	0	0	0
Wood Islands	DV19250	1.8 km	Single Phase	#2 ACSR conductor as well as 54% of the line has Eastern Cedar poles. Poles and wire in poor condition. Distribution Line feeds 69 customers.	0	0	0	917	0
Rt. 310	DM562	2.5 km	Single Phase	#2 ACSR conductor as well as 83% of the line has Eastern Cedar poles. Poles and wire in poor condition. Distribution Line feeds 137 customers.	0	0	0	0	0
Rt.4	GT644	1.2 km	Three Phase	Conductor to be upgraded from 4/0 to 477 to increase capacity, which will provide for the Town of Montague to be fed from Victoria Cross Substation or Georgetown Substation.	0	0	0	0	0

MARITIME ELECTRIC COMPANY, LIMITED**2013 CAPITAL BUDGET EVIDENCE**

Rebuild Location	Line #	KM	# of phases	Comments	2011 Customers Hrs.	2010 Customers Hrs.	2009 Customers Hrs.	2008 Customers Hrs.	2007 Customers Hrs.
Winsloe Rd.	WR1622	3 km	Single Phase	#4 ACSR conductor as well as 55% of the line has Eastern Cedar poles. Poles and wire in poor condition. Distribution Line feeds 252 customers.	0	427	0	0	0
Ft. Augustus Rd. (Rt. 215)	CR424, CR414	4 km	Three Phase	Conversion from single phase to three phase. This will improve the voltage and reduce the imbalance in the Crossroads Substation.	0	0	0	0	0
Colville Rd. (Rt. 226)	HR7701	2.8 km	Three Phase	#4 ACSR conductor as well as 88% of the line has Eastern Cedar poles. Poles and wire in poor condition. Distribution Line feeds 242 customers. Also re-conductoring the line will reduce the losses over the life of the line.	0	0	0	0	0
Bedford Irving to Linden Rd.	2R1790	2 km	Three Phase	82% of the line has Eastern Cedar poles. Poles are in poor condition. Distribution Line feeds 329 customers. Load growth in the area. Future plans are for the area to be converted to 25 kV.	0	0	0	0	0
4 kV City Circuit Conversion	QN4801, BR4604, BR4602, HL4401	1.5 km	Three Phase	3 year plan to convert the 4 kV circuits in the City of Charlottetown to 13.8 kV to improve reliability.	455	154	2449	3	247

MARITIME ELECTRIC COMPANY, LIMITED**2013 CAPITAL BUDGET EVIDENCE**

Rebuild Location	Line #	KM	# of phases	Comments	2011 Customers Hrs.	2010 Customers Hrs.	2009 Customers Hrs.	2008 Customers Hrs.	2007 Customers Hrs.
Kensington Rd.	RD4153	1 km	Three Phase	Circuit is used as a tie-line, but has small copper conductor (#2 copper). Plan is to upgrade conductor to 477 ACSR.	0	0	0	0	0
City Circuit Tie Line Upgrade	TL4200, TL4201, TL4206	1.5 km	Three Phase	Upgrade required to prepare for the tie between existing 13.8 kV circuits in the City and the new tie-line feeder from the UPEI substation.	0	0	1585	0	0
Taylor Rd.	AB360	2 km	Single Phase	#6 Solid copper conductor as well as 32% of the line has Eastern Cedar poles. Poles and wire in poor condition. Distribution Line feeds 32 customers. Also re-conductoring the line will reduce the losses over the life of the line.	0	31	0	0	0
MacIsaac Rd. & Richard's Rd.	WL3500	2.6 km	Single Phase	Required to close a 2.6 km gap which will improve the voltage and reliability for customers in the area as there will be an alternate feed from another source.	0	0	0	0	0
Maximeville	WL2057/WL2066	5 km	Three Phase	72% of the line has Eastern Cedar poles. Poles in poor condition. Distribution line feeds 690 customers.	4448	1060	0	0	0

MARITIME ELECTRIC COMPANY, LIMITED**2013 CAPITAL BUDGET EVIDENCE**

Rebuild Location	Line #	KM	# of phases	Comments	2011 Customers Hrs.	2010 Customers Hrs.	2009 Customers Hrs.	2008 Customers Hrs.	2007 Customers Hrs.
Freetown Rd. (Rt.8)	AB3375	5.5 km	Single Phase	#4 copper conductor as well as 75% of the line has Eastern Cedar poles. Poles and wire in poor condition. Distribution Line feeds 66 customers. Also re-conductoring the line will reduce the losses over the life of the line.	131	99	0	0	14
Augustine Cove (Rt.10)	AB3350	4 km	Single Phase	#2 ACSR conductor as well as 82% of the line has Eastern Cedar poles. Poles and wire in poor condition. Distribution Line feeds 125 customers. Also re-conductoring the line will reduce the losses over the life of the line.	0	119	0	0	0
Slemon Park Ring Main #2 & #4			Three Phase	Conversion of the primary underground system in Slemon Park to an overhead system. This project will replace aged underground pad mount transformers and sectionalizers with new overhead equipment.	4	0	0	0	0
UPEI Substation feeders - Charlottetown Mall	NEW	0.5km	Three Phase	New feeder from UPEI Substation. Feeder required due to load growth in the area of the Charlottetown Mall. Also, this feeder will be another back-up for the University Ave. feeder from West Royalty, hence improving reliability.	N/A	N/A	N/A	N/A	N/A

MARITIME ELECTRIC COMPANY, LIMITED**2013 CAPITAL BUDGET EVIDENCE**

Rebuild Location	Line #	KM	# of phases	Comments	2011 Customers Hrs.	2010 Customers Hrs.	2009 Customers Hrs.	2008 Customers Hrs.	2007 Customers Hrs.
UPEI Substation feeders - Tieline	NEW	1.2km	Three Phase	New tie-line feeder from UPEI Substation will improve reliability for the 13.8kV system.	N/A	N/A	N/A	N/A	N/A
UPEI Substation feeders - Mt. Edward Rd.	NEW	1km	Three Phase	New feeder from UPEI Substation. Feeder required due to load growth in the area. Also, this feeder will be another back-up for the Mt. Edward Rd. feeder from West Royalty, hence improving reliability.	N/A	N/A	N/A	N/A	N/A
New feeder from Crossroads Substation to Southport	NEW	2.5km	Three Phase	New feeder from Crossroads Substation required due to load growth in Stratford, including the waterfront development. Also, this feeder will improve reliability to the Town of Stratford as this will be a second feed to the loads in Stratford.	N/A	N/A	N/A	N/A	N/A
York Rd. conversion	2R1799	5km	Three Phase	Wire in poor condition. This feeder is at the end of the Sherwood feeder and voltage profile is not ideal. Similar to 2R1790 (Bedford Irving to Linden Rd.), future plans are for the area to be converted to 25kV. Also voltage conversion will reduce the losses over the life of the line.	592	2131	808	0	1013

MARITIME ELECTRIC COMPANY, LIMITED

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2. **Pole for Pole Replacement** **\$ 700,000**
The Company owns approximately 120,000 distribution poles. This amount is used to replace deteriorated individual poles. Approximately 700 poles are planned to be replaced in 2013.
3. **Porcelain Cutout Replacement Program** **\$ 400,000**
Porcelain cutout failures have created system reliability issues and employee safety concerns. This amount provides for the priority areas targeted for the 2013 phase of this Program.

MARITIME ELECTRIC COMPANY, LIMITED
2013 CAPITAL BUDGET EVIDENCE

D-6 System Meters \$ 1,485,000

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

1. Watt-hour Meters \$ 380,000

The residential Remote Interrogation (RI) meter program has proven successful in reducing meter reading labour costs and related transportation expenses, enhancing customer service and improving safety for meter readers. Meters will be read monthly increasing bill accuracy and eliminating estimates. New single phase meter replacements will be supplied from the RI Program.

RI meters conversion, non-magnetic suspension	1,500
Network and three phase meters	900
Total	2,400

Installed Cost: 2,400 meters @ \$158.33 (Rounded)

2. Combination Meters \$ 965,000

Customer growth and replacements due to aging are based on historical averages. Due to the success of the residential program for Remote Interrogation (RI) meters, the program is being extended to the combination meters (meters capable of capturing both demand and energy consumption data). The combination meters currently in use have to be retested every 4 years. When an existing combination meter comes up for testing, it will be upgraded to a digital RI meter, which currently has a 10 year sealing period. In 2013, 520 existing combination meters are up for retest and an additional 627 existing combination meters will be converted to digital RI meters. In 2014, 370 existing combination meters are up for retest and an additional 777 existing combination meters will be converted to digital RI meters. A total conversion from existing combination meters to digital RI combination meters is expected to be complete by 2015.

MARITIME ELECTRIC COMPANY, LIMITED**2013 CAPITAL BUDGET EVIDENCE**

RI Program	1,147
Customer Growth	135
Replacements due to aging, vandalism	<u>35</u>
Total	<u>1,317</u>

Installed Cost: 1,317 meters @ \$732.73 (Rounded)

3. Miscellaneous Metering Equipment \$ 30,000

This provides for miscellaneous metering equipment such as potential and current transformers for commercial customers, wiring supplies, security bands, sealing rings and colored indicator tags.

4. Outdoor Metering Tanks \$ 110,000

This provides for new outdoor metering tanks including the replacement of aged metering tanks at the Master Packaging, Pooles Corner Potato Facility and Dover Substation.

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D-7 **Distribution Equipment** \$ 1,805,000

1. **System Equipment** \$ 1,625,000

This provides for the replacement of aged equipment used to provide voltage support, communication, protection and control of the Company's assets. Included is an amount to upgrade the 1990's vintage mobile radio communications system. Seven new radio repeater sites will be established on existing towers aimed at improving coverage for field staff. The items identified for 2013 are:

MARITIME ELECTRIC COMPANY, LIMITED
2013 CAPITAL BUDGET EVIDENCE

System Equipment 2013	Material	Labor	Total
Voltage regulators, reclosers and controllers	\$ 260,000	\$ 126,000	\$ 386,000
Electronic reclosers	\$ 90,000		
Recloser controllers to replace obsolete FXB controllers	\$ 20,000		
Six (6) voltage regulator controllers to replace aging units	\$ 20,000		
Two sets (6) - voltage regulators	\$ 120,000		
Voltage regulator and recloser parts - preventative maintenance	\$ 10,000		
Circuit breakers and power transformer upgrades	\$ 155,000	\$ 76,000	\$ 231,000
Power transformer parts (pressure relief devices/fall arrest mounts)	\$ 15,000		
Transformer oil	\$ 30,000		
Transformer oil reconditioning	\$ 25,000		
69 kV and 138 kV Breaker Contacts - preventative maintenance	\$ 25,000		
Annual dissolved gas analysis	\$ 25,000		
Tap changer contacts - auto transformer preventative maintenance	\$ 25,000		
Transformer monitoring system	\$ 10,000		
Teleprotection and relay replacement	\$ 112,000	\$ 55,000	\$ 167,000
Teleprotection and relay replacement	\$ 112,000		
Communication equipment	\$ 371,000	\$ 181,000	\$ 552,000
Aging battery bank replacement program	\$ 20,000		
Mobile and portable radio	\$ 20,000		
RTU replacement interruptible customers	\$ 25,000		
SCADA RTU retrofits/parts	\$ 15,000		
Vehicle radio antennae and RF meters antenna	\$ 5,000		
Communication pole (tower contingency)	\$ 16,000		
Mobile communication	\$ 190,000		
Communication system upgrade BCC to ECC	\$ 80,000		
Distribution	\$ 178,000	\$ 87,000	\$ 265,000
Reclosure bypass switches	\$ 20,000		
13.8 kV City circuit switches	\$ 50,000		
Voltage regulator bypass switches	\$ 15,000		
Capacitor banks for Crossroad feeders	\$ 13,000		
1 recloser for Crossroads	\$ 20,000		
3 Voltage regulators for Crossroads	\$ 60,000		
Test equipment	\$ 24,000	-	\$ 24,000
Doble power factor test equipment	\$ 24,000		
Total	\$ 1,100,000	\$ 525,000	\$ 1,625,000

MARITIME ELECTRIC COMPANY, LIMITED**2013 CAPITAL BUDGET EVIDENCE**

2. **Meter Shop Equipment** **\$ 26,000**
This provides for power quality test equipment, voltmeters and meter test equipment as required.
3. **Line Tools and Equipment** **\$ 154,000**
This provides for the replacement of line test equipment such as field leakage meters, hotline sticks and phasing sticks, line safety equipment such as equipotential bonding equipment, hard cover-up and fall arrest equipment and material handling equipment such as presses and dies, running blocks and one ton chain hoists. This also provides for the purchase of a thermal imaging camera required to scan and analyze temperatures of mechanical and electrical equipment to reduce potential safety hazards and contribute to a more effective maintenance practice.

MARITIME ELECTRIC COMPANY, LIMITED
2013 CAPITAL BUDGET EVIDENCE

D-8 Transportation Equipment \$ 1,057,000

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. For the large line vehicles, the chassis are targeted for replacement approximately every 10 years. Periodic inspections of the booms are performed to determine the timing and method of refurbishment which extends the life of the booms by approximately 10 years. Small vehicle replacements depend on age, mileage and type of service; however, the life span is approximately 5 to 10 years. The following schedule outlines the vehicles proposed for replacement or re-chassis in 2013 and the purchase of one new wire tension trailer.

	Vehicle Replaced	Type	Description	Age (Yrs)	Replacement Cost
1.	07-06-10	½ Ton Truck	Central Line Dept.	6	\$ 37,000
2.	07-12-77	CSUP Line Truck	Eastern Line Dept.	6	\$ 250,000
3.	03-12-75	Digger Truck (tandem axle) (new chassis and boom)	Central Line Dept.	14	\$ 375,000
4.	89-12-74	Digger Truck (single axle) (new chassis and boom)	Central Line Dept.	23	\$ 285,000
5.	New	Wire Tension Trailer	Central Line Dept.		\$ 40,000
6.	Allowance for unforeseen capital expenditures				\$ 70,000
Total					<u>\$ 1,057,000</u>

MARITIME ELECTRIC COMPANY, LIMITED
2013 CAPITAL BUDGET EVIDENCE

2. **Charlottetown Plant Control Building** **\$ 130,000**
This is a provision for the construction of a control building at the Charlottetown Plant Substation. The existing protection and control equipment is scheduled to be upgraded to digital technology upon completion of the new building. This will address the concern that the existing protection and control equipment is located adjacent to the circuit breakers. Separating this equipment greatly reduces extended outage risk as experienced at the West Royalty Substation in 2009 due to a breaker failure.
3. **Automation Project** **\$ 65,000**
Substation automation and integration work will continue by providing the infrastructure to make data collected from substation equipment available to more users. The West Royalty Substation will be the focus for 2013.
4. **Miscellaneous Projects** **\$ 194,000**
This is a provision for the replacement of the Hunter River Substation ground grid, the replacement of current transformers at Bedeque Substation that may be contaminated with PCBs and miscellaneous projects such as substation fence upgrades and other initiatives that may arise during the year. The work provided for at the Bedeque Substation is a PCB compliance issue and relates to the testing and replacement of eighteen current transformers. If testing determines that the equipment is compliant, the provision will not be required.

MARITIME ELECTRIC COMPANY, LIMITED**2013 CAPITAL BUDGET EVIDENCE****3. Easements for the new Y-104 Transmission Line from Mount Stewart Road to Church Road \$ 900,000**

Transmission line T-4 between the Charlottetown Plant and Lorne Valley Substation was built in 1965 and is approaching the end of its life. As part of the requirement to upgrade the transmission system that services the Eastern end of the Island, it is proposed that a 138 kV transmission line be constructed from West Royalty Substation to Church Road Substation, a distance of approximately 80 kilometres. The construction of Y-104 will also accommodate additional wind development in Eastern PEI. Currently, it is anticipated that easements will be required for approximately 40 kilometres of transmission line from Mount Stewart Road (Route 22) to Church Road. This provision allows for acquisition of those easements.

MARITIME ELECTRIC COMPANY, LIMITED
2013 CAPITAL BUDGET EVIDENCE

The following table outlines the estimated annual costs for the Y-104 transmission line project.

	Y-104 Project Description	KM	Total Cost
2012	Church Road 45/60/75 auto-transformer, 138 kV breaker and bay		\$ 2,679,000
2012	EIA for Mount Stewart Road Route 22 to Church Road		\$ 300,000
	Total 2012		\$ 2,979,000
2013	Easements from existing T-4 to Church Road		\$ 900,000
	Total 2013		\$ 900,000
2014	Construction from existing T-4 to Church Road Substation	18 km	\$ 2,832,000
	Total 2014		\$ 2,832,000
2015	Construction from existing T-4 to Church Road Substation	23 km	\$ 3,600,000
2015	Church Road Substation 138 kV breaker and bay		\$ 750,000
	Total 2015		\$ 4,350,000
2016	Construction from Jenkins Road to Scotchfort Substation on existing T-4 ROW	14 km	\$ 2,240,000
2016	Construction from Scotchfort Substation to Fanningbrook Road on existing T-4 ROW	10 km	\$ 1,520,000
2016	EIA for West Royalty Substation to existing T-4		\$ 100,000
	Total 2016		\$ 3,860,000
2017	Construction from Acadian Drive to Jenkins Road on existing T-4 ROW	5 km	\$ 756,000
2017	West Royalty Substation to existing T-4	7 km	\$ 910,000
	Total 2017		\$ 1,666,000
2018	Mount Stewart 138 kV Substation and Transformer		\$ 1,350,000
2018	Mount Stewart 138 kV Transmission Line Extension	8 km	\$ 1,296,000
2018	West Royalty Substation Breaker Addition		\$ 750,000
	Total 2018		\$ 3,396,000
	Total	85 km	\$ 19,983,000

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

MARITIME ELECTRIC COMPANY, LIMITED
2013 CAPITAL BUDGET EVIDENCE

CORPORATE

C-1 Corporate Services \$ 183,000

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

Waterless Fire Protection – 180 Kent Street \$ 60,000

This provides for a waterless sprinkler system for the Company's main computer room at 180 Kent Street. The current "wet" system presents a significant risk to the Company's computing equipment should the sprinkler system be activated.

Western Service Centre Expansion – Phase I \$ 93,000

This provides for modifications to the Western Service Centre in order to allow adequate space for line trucks and to increase storage space for inventory materials and other line operations equipment which is currently housed in a temporary storage trailer connected to the Service Centre. The budget amount also includes certain improvements to the existing building structure including the addition of proper insulation and vapour barrier materials to maintain integrity of the roofing materials and increase the insulating efficiency in the truck bay area.

Phase 1 of the expansion will include all government permits, environmental assessments, engineering, surveying, ground preparation, foundation installation and paving at the Service Centre. Phase 2, to be completed in 2014 at an estimated cost of \$98,000, will see the completion of the truck bay and materials storage areas.

Unforeseen Capital Expenditures \$ 30,000

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

MARITIME ELECTRIC COMPANY, LIMITED
2013 CAPITAL BUDGET EVIDENCE

C-2 Information Technology \$ 865,000

The Company recognizes the critical role that Information Technology plays in meeting its objectives. To this end, the Company proposes to invest a total of \$865,000 in the following initiatives.

1. Hardware Acquisitions \$ 240,000

Servers	\$ 100,000
Communications Equipment	30,000
Personal Computers	50,000
Printers	20,000
Installation Costs	<u>40,000</u>
Total	<u>\$ 240,000</u>

2. Purchased Software and Upgrades \$ 200,000

Microsoft Suite	\$ 80,000
Great Plains Financials	20,000
ESRI Mapping System	20,000
Maximo Asset Management	17,000
Software Development Tools	20,000
Smaller Miscellaneous Software	20,000
Installation Costs	<u>23,000</u>
Total	<u>\$ 200,000</u>

3. Cash Balancing System \$ 45,000

The current system used by cashiers was developed in the 1990's. Efficiency gains will be achieved by redesigning the system software for this application with a design focus on enhanced integration with the customer information system.

MARITIME ELECTRIC COMPANY, LIMITED
2013 CAPITAL BUDGET EVIDENCE

4. **Working Alone** **\$ 40,000**
The issue of ensuring adequate safety measures are in place for employees working alone in various areas of the Company has been an emerging safety issue. This amount provides for the development of a system to provide enhanced safety for employees and improved operational efficiency in the monitoring process.
5. **Network Security Review** **\$ 85,000**
This provides for a review and analysis of the Company's computer network by an external security specialist to ensure the Company's network is protected against external hackers and potential security threats. Maritime Electric has adopted a policy of performing this review every two to three years.
6. **Web Site Services** **\$ 80,000**
This project will build on the functionality of the Maritime Electric web site. The site will be linked to internal systems such as service orders, outage restoration and field maintenance to enhance customer service and operational efficiencies by allowing customers to directly access key services through the Company website.
7. **Virtual Desktop** **\$ 55,000**
This project involves deploying computer systems to Company staff from a central server computer. The technology replaces personal computers with a less expensive thin client. Benefits include a consistent user experience, ease of maintenance and reduced costs of ownership.

MARITIME ELECTRIC COMPANY, LIMITED
2013 CAPITAL BUDGET EVIDENCE

8. **Survey System** **\$ 35,000**
This system is used as a planning tool for line construction. Surveyors document the types of structures to be installed and the system generates the associated material list required to complete the project. The current system was developed in the mid 90's and lacks integration to the Company's core systems. This project will see the system redesigned to increase functionality as well as add integration to the service order and inventory systems.
9. **Budgeting and Forecasting Software** **\$ 65,000**
This project will encompass the procurement and implementation of budgeting and forecasting software. The software will be a product from the Great Plains Financials Suite, the core of which was implemented in 2012.
10. **Customer Service Training Software** **\$ 20,000**
This amount provides for the development of software for enhancing the skill sets of Customer Service Representatives (CSRs). The software will facilitate a reinforced understanding for CSRs of regulatory regulations impacting the Company, more efficient use of the Company's outage management system and develop a more in-depth understanding of the electricity supply system. These measures will result in improved customer service and operational efficiency.

MARITIME ELECTRIC COMPANY, LIMITED

2013 CAPITAL BUDGET EVIDENCE

CAPITALIZED GENERAL EXPENSE **\$ 441,000**

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.

MARITIME ELECTRIC COMPANY, LIMITED
2013 CAPITAL BUDGET EVIDENCE

INTEREST DURING CONSTRUCTION \$ 147,000

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.

SCHEDULE "B"

CANADA

PROVINCE OF PRINCE EDWARD ISLAND

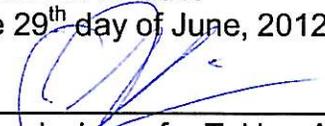
BEFORE THE ISLAND REGULATORY
AND APPEALS COMMISSION (the "Commission")

IN THE MATTER of the Application of
Maritime Electric Company, Limited for
approval of a 2013 Capital Budget.

We, Fred J. O'Brien, of Alberton, in Prince County, Steven D. Loggie and
John D. Gaudet, of Charlottetown, in Queens County, Province of Prince Edward
Island, MAKE OATH AND SAY AS FOLLOWS:

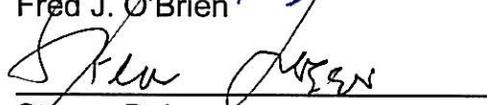
1. THAT we are respectively the President and Chief Executive Officer, Vice-President, Finance and Corporate Services and Chief Financial Officer and Vice-President, Operations and Engineering of Maritime Electric Company, Limited and, as such, have a personal knowledge of the matters hereto deposed to except where otherwise indicated.
2. THAT we prepared or supervised the preparation of the evidence which is, with this affidavit, attached as Schedule "A" of the application to which this affidavit is attached.
3. THAT the information included in the evidence is true and correct.

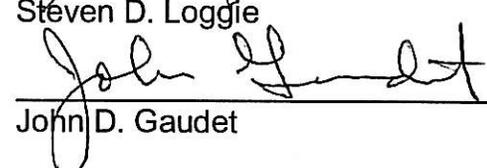
SEVERALLY SWORN to at the city)
of Charlottetown, County of Queens)
Province of Prince Edward Island)
by Fred J. O'Brien, Steven D. Loggie)
and John D. Gaudet)
on the 29th day of June, 2012.)



A Commissioner for Taking Affidavits)
in the Supreme Court.)



Fred J. O'Brien)


Steven D. Loggie)


John D. Gaudet)