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Request IR-01:

Is there an agreement in place with the Government of Prince Edward Island and/or the Federal Government with respect to their financial contributions to the cost of the EE&C Plan? If so, please provide a copy of these signed agreements or commitments to the Commission.

Response IR-01:

The Department of Community, Lands and Environment (CLE) has signed an agreement with the Government of Canada under the Low Carbon Economy Leadership Fund. This agreement is being filed with the Commission on a "Commission Only" confidential basis.

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Request IR-02:

The application states that the PEI Energy Corp. assumes government funding will be available. What are the implications if the application is approved but the PEI Energy Corp. receives less funding from the Federal and Provincial Governments? What parties are responsible to fund this shortfall and in what proportions?

Response IR-02:

Both the Government of Canada and the Government of PEI have committed funding up to March 31, 2022, subject to annual budget approval, through the signing of a Low Carbon Economy Fund Funding Agreement. In the event of such a funding shortfall, PEIEC would propose to bring the matter before the Commission recommending a reduction in the scope of the EE&C Plan to maintain the relative proportion of funding for each of the parties.

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Request IR-03:

What methodology was used to determine the allocation of funding requirements between the Federal Government, the Government of Prince Edward Island, Maritime Electric Corporation, Limited and the City of Summerside?

Response IR-03:

When designing the programs and allocating the funding for the EE&C Plan, PEIEC attempted to keep the utility funding requirement roughly equivalent to the funding requested by Maritime Electric in its 2015 DSM Plan. The Federal and Provincial governments would then make up the rest of the required funding to implement the component programs in the Plan.

The funding allocation from Summerside was determined based on an approved funding agreement between the PEI Government, PEIEC, Maritime Electric Company, Limited and the City of Summerside for the PEI/NB Interconnection Facilities Debt Collection Agreement.

The funding requirement for the City of Summerside will be explicitly identified in the Service Delivery Agreement for Electricity Efficiency and Conservation Activities between the City of Summerside and PEIEC, which will be filed with the Commission subsequent to its signing.

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Request IR-04:

Did the PEI Energy Corp. consider other methods of determining the allocation of funds between Maritime Electric Company, Limited and the City of Summerside? If so, please provide particulars of the other methods to the Commission.

Response IR-04:

Please refer to PEIEC's response to IRAC IR-03.

There was no other method considered to determine the allocation of funds between Maritime Electric Company, Limited and the City of Summerside.

Request IR-05:

Generally speaking, utilities have higher costs of borrowing than government.

a) How did the PEI Energy Corp. arrive at the discount rate in section 3.6 of the application?

b) Did the PEI Energy Corp. consider other possible discount rates? If so, please provide particulars of the other discount rates.

c) Why is 3.2% the appropriate discount rate? Please provide the PEI Energy Corp's justification for the discount rate.

d) Did the PEI Energy Corp. consider the utilities' costs of borrowing when determining the appropriate discount rate?

Response IR-05:

a) The discount rate applied in section 3.6 of the application was intended to reflect the long-term cost of borrowing for the PEI Government. The rate of 3.2%, current at the time of plan development, was provided by the PEI Department of Finance.

b) Maritime Electric's (MECL's) Weighted-Average Cost of Capital was considered at a methodological level, however not in any quantitative detail. PEIEC understands that MECL's WACC was 7.0% at the time of filing the 2015-2020 DSM and Energy Conservation Plan.[1]

c) PEIEC believes the discount rate selected is appropriate on the basis of the risk-profile of DSM investments, its administration by a third-party program administrator, the predominance of government funding for EE&C programs in PEI, and the lack of utility

[1] Maritime Electric Demand Side Management and Energy Conservation Plan 2015-2020, Filed June 3, 2015, at Appendix 1.

borrowing involved (in the case where DSM investment is expensed to customers, as recommended).

On the topic of risk, in a 2012 report, the Regulatory Assistance Project and Synapse Energy Economics state:

> In these cases [of administration by third-party entities], the utility WACC would clearly not be an appropriate discount rate, because that rate does not represent the time value of money to the third-party administrator. The discount rate for third party administrator programs should be low for the same reason that discount rates for utility-administered programs funded by system benefits charges should be low: there is very little financial risk associated with the funding source, as there is no long-term financing involved.[2]

In the case where DSM is expensed, as opposed to amortized, no borrowing is involved from the perspective of the utility (i.e. no regulatory asset is created).

Investment for DSM flows from the ratepayer, through the utility, to the program administrator, and for incentive spending, to the participant. It is the participant and the ratepayer who await, and ultimately reap, the returns from energy efficient technology as it accrues from an initial investment; in the case of participant, these returns flow from energy and demand savings on their premises, and in the case of the ratepayer, from the system-wide benefits provided by energy efficiency. This fact, coupled with the low-risk profile of the investment, make a public long-term interest rate appropriate.

[22] Regulatory Assistance Project and Synapse Energy Economics, *Energy Efficiency Cost-Effectiveness Screening: How to Properly Account for 'Other Program Impacts' and Environmental Compliance Costs*, November 2012, at page 64.

In the same 2012 report, the authors recommend a similar approach to that used by PEIEC:

> We recommend that states use the interest rates on long-term (e.g., 10-year) US Treasury bills as the discount rate for the PAC and the TRC Tests. This indicator is widely accepted as representing low-risk investments and is straightforward, transparent, and readily available.[3]

Methodologically and quantitatively, the approach employed by PEIEC is consistent with that recommended by the authors.

d) Yes, the utility cost of borrowing was considered, but for the reasons described above, it was deemed inappropriate for use in cost-effectiveness. In a scenario where the amortization of DSM investment creates a regulatory asset, PEIEC would consider it appropriate to use utility WACC when calculating returns on that asset.

[3] *Ibid.*, at page 64.

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Request IR-06:

Both Maritime Electric Company, Limited and the City of Summerside are contributing funding to the EE&C Plan. Do any components of the EE&C Plan benefit one utility, but not the other? If so, please provide particulars including the associated project and administrative costs.

Response IR-06:

The only component of the EE&C Plan that benefits one utility, and not the other, is the provision of incentives for reducing electricity demand during winter peak times. Summerside Electric currently offers time-of-use rates and Summerside Electric customers will be offered incentives to install heating equipment to take advantage of these rates. These incentives will be offered via the Energy Efficiency Equipment Rebates program. Incentives are expected to total $211,550 over the 3-year offering. Administrative costs cannot be broken out, as these measures are part of a mix of many measures offered under this program, rather than a stand-alone offering.

Maritime Electric Company Limited (MECL) does not currently offer time-of-use rates to residential customers. Incentives for reducing electricity demand during peak periods will also be offered to MECL customers if and when MECL provides time-of-use rates.

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Request IR-07:

Please provide the financial projection of revenues and expenses for the EE&C Plan projects and administrative costs for years one through three.

Response IR-07:

Revenues and expenses are provided in the tables below. Please note that the "Non-Incentive Program Delivery" cost category is materially similar to administrative costs.

2018/19	Revenue
Maritime Electric and Summerside Electric Funding	$600,000
Province of PEI Funding	$1,149,500
Federal Government Funding	$1,019,500
Total	**$2,769,000**

2018/19	Expenses
Incentives	$1,594,000
Non-Incentive Program Delivery	$825,000
Program-Specific Marketing	$125,000
Evaluation	$150,000
Enabling Strategies	$75,000
Total	**$2,769,000**

2019/20	Revenue
Maritime Electric and Summerside Electric Funding	$970,000
Province of PEI Funding	$1,916,000
Federal Government Funding	$1,774,000
Total	**$4,660,000**

2018/19	Expenses
Incentives	$2,852,000
Non-Incentive Program Delivery	$1,100,000
Program-Specific Marketing	$149,000
Evaluation	$224,000
Enabling Strategies	$335,000
Total	**$4,660,000**

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2020/21	Revenue
Maritime Electric and Summerside Electric Funding	$1,200,000
Province of PEI Funding	$2,431,500
Federal Government Funding	$2,251,500
Total	**$5,883,000**

2018/19	Expenses
Incentives	$3,721,000
Non-Incentive Program Delivery	$1,325,000
Program-Specific Marketing	$201,500
Evaluation	$225,500
Enabling Strategies	$410,000
Total	**$5,883,000**

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Request IR-08:

The PEI Energy Corp. recommends that the costs of the EE&C Plan be expensed as incurred and not amortized over multiple years. This practice could increase the risk of rate shock for Island ratepayers.

a) Has the PEI Energy Corp. determined the rate impact that expensing costs will have on Island ratepayers? If so, please provide full particulars and analysis to the Commission.

b) For comparative purposes, please provide an analysis of the rate impact if the EE&C Plan is capitalized and amortized as well as the amortization period.

Response IR-08:

a) Please refer to PEIEC's response to Synapse IR-30, Attachment 1 for an analysis of rate and bill impacts from the proposed plan. A detailed written report does not exist for this analysis, but the analysis results indicate maximum rate impacts for the residential and C&I sectors of $0.0007 per kWh and $0.0005 per kWh ($0.07 per kW demand), respectively. Both sectors demonstrate sector-average bill reductions in every year, with the exception of C&I in 2018/2019. Bills, in both sectors, are favorable relative to no-DSM on average over the life of the plan (the life of the installed measures) and over the three year plan implementation period.

b) Please refer to Attachment 1 of this IR response which has been filed electronically. In this analysis each year of program investment was amortized independently using a period of 10 years[1], and an assumed utility WACC of 7%.

[1] 10 years was selected as it is roughly equivalent to the C&I weighted-average measure life (slightly shorter). This amortization period will end while the vast majority of DSM measures from the plan are still producing savings.

Results show that near-term rate effects are decreased relative to the case without amortization. This comes at the cost of decreased average bill savings over the life of measures, due to the incremental $916,000 required as the cost of borrowing in this scenario. Graphical and tabular results are shown below.

Note that this analysis considers the 2018-2021 plan in isolation. If DSM efforts continue into the future, their impacts will be additive beyond the 2020/2021 year. In a steady-state DSM investment environment, amortization results in higher costs (due to the cost of borrowing), but no "smoothing" of investment profiles, as the investment profile is already steady.

Figure 1 - Residential Energy Rate Impacts Comparison ($/kWh)

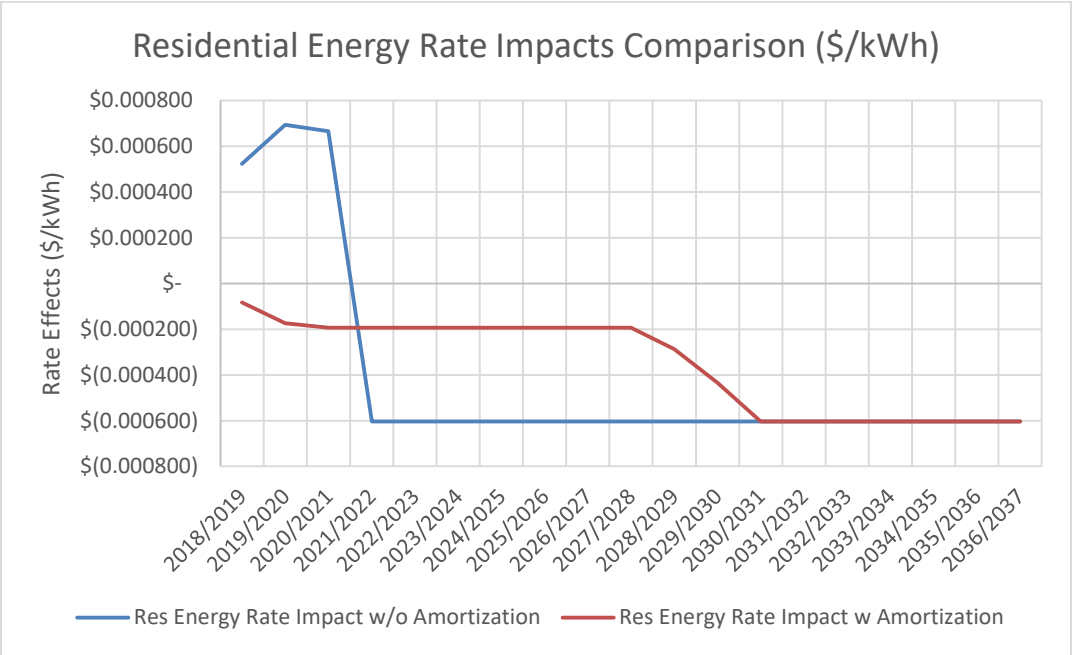

Figure 2 - C&I Energy Rate Impacts Comparison ($/kWh)

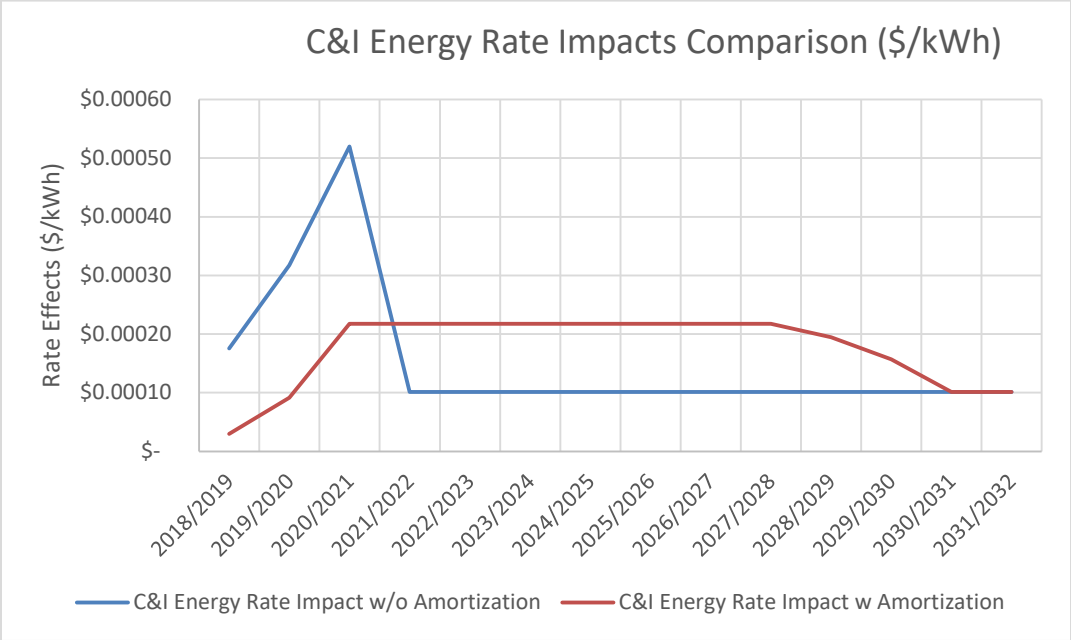

Figure 3 - C&I Demand Rate Impacts Comparison ($/kW)

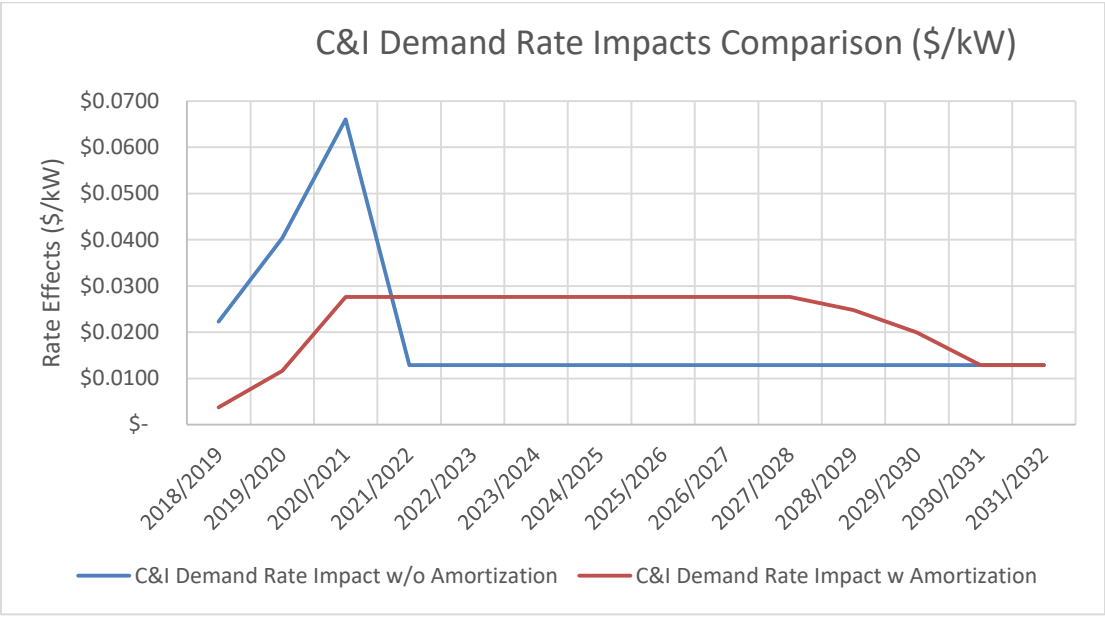

Figure 4 - Residential Bill Impacts Comparison ($/mo)

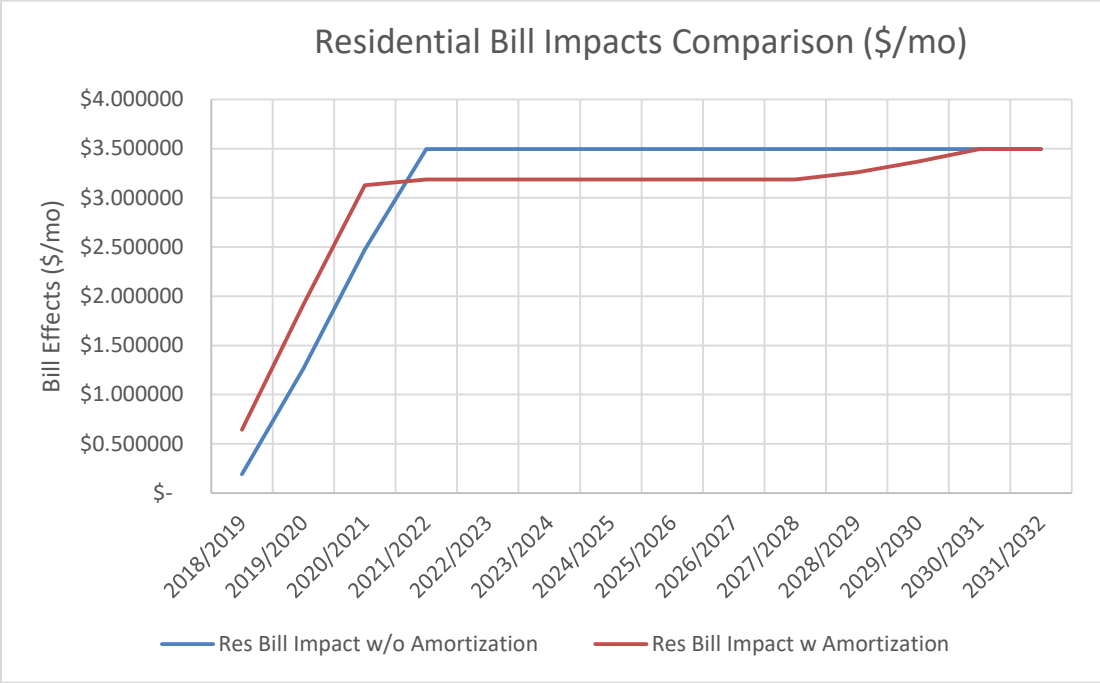

Figure 5 - C&I Bill Impacts Comparison ($/mo)

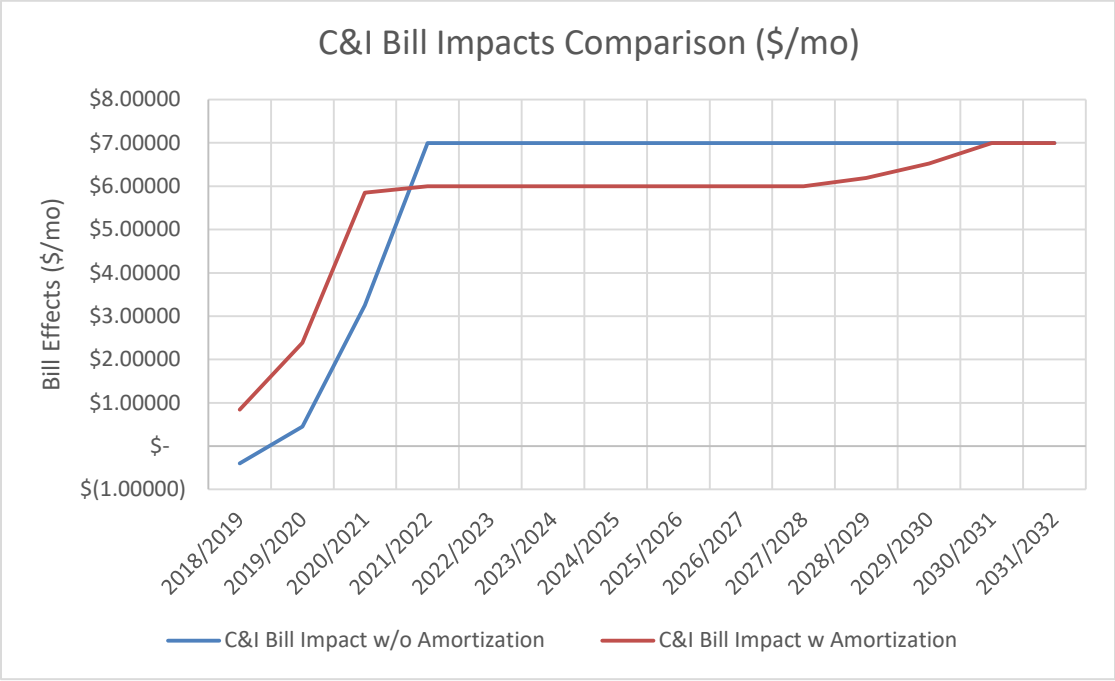

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Table 1 - Summary Average Results - Comparison

Analysis Averages	Residential w/o Amortization	Residential w/ Amortization	% Difference relative to w/o Amortization	C&I w/o Amortization	C&I w/ Amortization	% Difference relative to w/o Amortization
Energy Rate Effects (increases +) ($/kWh)	$ (0.000409)	$ (0.000355)	13%	$ 0.000152	$ 0.000172	14%
Demand Rate Effects ($/kWh)	N/A	N/A	N/A	$ 0.019290	$ 0.021912	14%
Bill Savings ($/mo)	$ 3.151678	$ 3.110290	-1%	$ 5.735756	$ 5.557513	-3%