

PWU-1

Reference 1: Exhibit 1. Tab 1, Schedule 4, page 3 of 10, lines 8-14

As the OEB did not ultimately approve incremental capital funding in the 2020 rate application Alectra Utilities reduced its planned capital expenditures over the 2020-2024 period following the OEB's decision. Alectra Utilities completed a comprehensive review of its capital investment plan to identify reductions and deferrals in order to align the level of investment with the funding available in rates. This resulted in the deferral of some prudent investments, and as described in Exhibit 3, Tab 1, Schedule 1, has led to the deferral of investments in underground system renewal.

Reference 2: Exhibit 1, Tab 1, Schedule 4, page 3 of 10, lines 22-26

Since preparing the DSP, Alectra Utilities has continued to enhance its capital planning tools, allowing the company to further focus its investments on work that provides value for customers. In particular, Alectra Utilities has implemented an Asset Analytics Platform to evolve the existing condition based asset management practice towards predictive analytics, reliability driven maintenance and machine learning.

- a) In Ref: 1, what was the Incremental Capital funding that Alectra requested in the 2020 rate application?**
- b) Please explain whether it was the reduction in investment due to the OEB's refusal to approve the Incremental Capital funding in Ref 1, or the implementation of the Asset Analytics tool that was used to determine the amount of Incremental Capital funding that is being proposed in this application? Specifically, please indicate whether or not the proposed Incremental Capital funding level would have been lower or higher had Alectra not implemented the Asset Analytics Platform?**
- c) Please advise when the proposed Incremental Capital funding levels in this application were costed, and advise whether those costs take into account the recent/and foreseeable inflationary pressures that many utilities are facing in procuring assets and services?**

Response:

- 1 a) Alectra Utilities requested \$265MM in incremental capital funding over the 2020 to 2024
2 period.
3
- 4 b) As identified in Exhibit 3, Tab 1, Schedule 4, Alectra Utilities leveraged its Asset Analytics
5 platform to identify projects. After optimization, a short list of ICM projects was generated.
6 Further, as part of the customer engagement process, Alectra Utilities assessed customers'
7 preferences between specific investment options and outcomes to address the challenges
8 posed by deteriorating underground cable. The proposed ICM funding in this application was
9 based on customer preferences from the customer engagement. The proposed number of
10 projects would have been similar without the use of the Asset Analytics platform; however,
11 the engineering assessment of the remediation needs would have been a manual exercise.
12 The Asset Analytics Platform provides the utility with the functionality to establish asset-centric
13 cross-database relationships. For example, the health index of an asset can be overlaid with
14 reliability data sets against GIS maps and inspection data to provide a complete picture for
15 the engineering assessment.
16
- 17 c) As provided in Exhibit 3, Tab 1, Schedule 1, page 2, in March 2022, Alectra Utilities
18 implemented necessary adjustments to the 2022 to 2024 capital investments to account for
19 the impact of supply chain challenges on the cost of materials and services, as well as the
20 effect of inflation. In April 2022, based on customer feedback, Alectra Utilities incorporated
21 the proposed ICM investments in 2023 and 2024.

PWU-2

Reference: Exhibit 2, Tab 1, Schedule 1, page 8 of 20

Means Test

Alectra Utilities' 2021 annual Reporting and Record Keeping Requirements ("RRRs") are filed for Alectra Utilities, and not individually, by rate zone. Alectra Utilities 2021 ROE was calculated to be 6.18%, 277 basis points below a calculated ROE for Alectra Utilities of 8.95%. Alectra Utilities calculated a consolidated deemed ROE percentage, using the weighted average of the OEB-approved deemed equity portion rate base amounts for each rate zone, from the most recent OEB-approved rebasing application for each of the predecessor companies. Therefore, Alectra Utilities meets the Means Test. Alectra Utilities ROE calculation for 2021, filed in RRR 2.1.5.6, is provided as Attachment 2.

a) Has Alectra exceeded its deemed ROE in any year since amalgamation?

Response:

- 1 a) As provided in Table 1, below, Alectra Utilities has not exceeded its deemed ROE in any year
2 since amalgamation.

3 **Table 1 – 2017 to 2021 ROE**

ROE	2017	2018	2019	2020	2021
Achieved ROE	8.49%	7.69%	7.21%	4.80%	6.18%
Deemed ROE	8.91%	8.95%	8.95%	8.95%	8.95%
Difference	-0.42%	-1.26%	-1.74%	-4.15%	-2.77%

4

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Reference: Exhibit 3, Tab 1, Schedule 1, page 9 of 11, lines 24-27

Alectra Utilities' suppliers and manufacturers have informed the company that lead times will continue to trend upward. Prior to the pandemic, the lead time for transformers was between 26 to 20 weeks and has now increased to 35 to 55 weeks. Similarly, the lead time for underground cable and wire has increased from 12 to 22 weeks to 26 to 34 weeks.

- a) Has Alectra observed, or does Alectra anticipate, any supply chain issues with respect to the materials required for silicone injections?**
- b) To what extent does Alectra procure spare underground cables for reactive replacements?**
- c) How would Alectra address cable failures if supply chain issues restrict its ability to procure underground cable for reactive replacements?**

Response:

- 1 a) Alectra Utilities has not observed and does not foresee, at this point, supply chain issues with
2 respect to material for silicone injections.
3
- 4 b) Alectra Utilities procures "safety stock" for reactive use. This safety stock has a minimum re-
5 order point, where once the stock level dips below that point, it is re-ordered to the minimum
6 level. Additionally, due to supply chain issues, Alectra Utilities conducted a forecasting and
7 procurement exercise where the average yearly quantity of material used was placed on order
8 for 2023. This process ensures that cable for reactive purposes will be replenished without
9 requiring an order to be placed once the item drops below the minimum stock level.
10
- 11 c) As provided in response to part b), Alectra Utilities has mitigated the risk of supply chain issues
12 by the advanced procurement of cable to address reactive cable failures. Further, Alectra
13 Utilities has several regions that carry the same material, therefore if one region required
14 material, a transfer could be facilitated from another region.

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Reference 1: Exhibit 2, Tab 1, Schedule 1, page 8 of 20, lines 10-14

Further, Alectra Utilities has forecast that the combined proposed ICM investment in both RZs will avoid future cable renewal costs of approximately \$180MM, largely attributable to injecting cable now that would otherwise need to be replaced in the future as a result of missing the cable injection feasibility window.

Reference 2: Exhibit 2, Tab 1, Schedule 1, page 12 of 20, Table 10, PowerStream Bill Impacts

Rate Class	Unit	kWh	kW	ICM Monthly Rate Rider	% Increase vs 2022 Total Bill
Residential	kWh	750		\$0.16	0.13%
General Service Less Than 50 kW	kWh	2,000		\$0.37	0.11%
General Service 50 To 4,999 kW	kW	80,000	250	\$6.90	0.06%
Large Use	kW	2,800,000	7,350	\$130.70	0.03%
Unmetered Scattered Load	kWh	150		\$0.05	0.16%
Sentinel Lighting	kW	180	1	\$0.08	0.20%
Street Lighting	kW	280	1	\$0.05	0.11%

Reference 3: Exhibit 2, Tab 1, Schedule 1, page 19 of 20, Table 17, Enersource Bill Impacts

Rate Class	Unit	kWh	kW	ICM Monthly Rate Rider	% Increase vs 2022 Total Bill
Residential	kWh	750		\$0.13	0.10%
General Service Less Than 50 kW	kWh	2,000		\$0.44	0.13%
General Service 50 To 499 kW	kW	100,000	230	\$6.14	0.04%
General Service 500 To 4,999 kW	kW	400,000	2,250	\$38.23	0.06%
Large Use	kW	3,000,000	5,000	\$153.85	0.04%
Unmetered Scattered Load	kWh	300		\$0.08	0.15%
Street Lighting	kW	33	0.1	\$0.02	0.28%

- a) Please provide details of the \$180MM avoided in future capital renewal expenditures.
- b) Please provide an estimate of the rate impact of future cable replacements in comparison to the proposed ICM rate impact.

Response:

- 1 a) Please see Alectra Utilities' response to 1-Staff-4 b).
- 2
- 3 b) The estimated rate impact of future cable replacements in comparison to the proposed ICM
4 rate impact is provided in Tables 1 and 2 below. The proposed ICM investment of \$52.3MM
5 for the PowerStream and Enersource RZs over the 2023 to 2024 period will address the
6 urgent reliability needs in the neighbourhoods with deteriorated cables and is expected to
7 avoid approximately \$180MM in future cable renewal expenditures.

8
9 This analysis compares the proposed 2023 and 2024 ICM rate riders based on the total
10 proposed 2-year ICM investment of \$52.3MM (\$34.8MM in the PowerStream RZ and
11 \$17.4MM in the Enersource RZ) to the \$180MM in future avoided capital renewal
12 expenditures.

13
14 **Table 1 – PowerStream RZ Bill Impact Comparison**

Rate Class	2023/2024 ICM Monthly Rate Rider	\$180MM Monthly Rate Rider
Residential	\$0.33	\$1.14
General Service Less Than 50 kW	\$0.75	\$2.80
General Service 50 To 4,999 kW	\$14.47	\$49.79
Large Use	\$273.62	\$942.40
Unmetered Scattered Load	\$0.10	\$0.36
Sentinel Lighting	\$0.17	\$0.58
Street Lighting	\$0.10	\$0.31

15
16 **Table 2 – Enersource RZ Bill Impact Comparison**

Rate Class	2023/2024 ICM Monthly Rate Rider	\$180MM Monthly Rate Rider
Residential	\$0.26	\$0.88
General Service Less Than 50 kW	\$0.87	\$2.61
General Service 50 To 499 kW	\$12.25	\$42.22
General Service 500 To 4,999 kW	\$76.42	\$262.99
Large Use	\$306.86	\$1,057.14
Unmetered Scattered Load	\$0.16	\$0.51
Street Lighting	\$0.04	\$0.10

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Reference 1: Exhibit 3, Tab 1, Schedule 1, pages 5-6, lines 24-29 & 1-2

However, in 2022 and onwards, the remaining investments in System Access, System Service and General Plant are either mandatory or are necessary to address the needs of the distribution system and the continued operation of critical business functions. Any additional capital deferrals would expose Alectra Utilities and its customers to unacceptable safety risks and potential non-compliance with regulatory obligations to connect customers. These reductions to System Renewal investments are not the most cost-effective approach to addressing the deteriorating assets in the utility's distribution system. In addition, this approach poses significant risk to the reliability of service for affected customers.

Reference 2: Exhibit 3, Tab 1, Schedule 1, Page 3 of 11, Table 18

Investment Category	Actual 2020	Actual 2021	Forecast 2022	Budget 2023	Budget 2024	Total
System Access	(\$3.5)	\$0.5	\$1.6	\$2.1	(\$1.9)	(\$1.2)
System Renewal	(\$3.5)	(\$5.5)	(\$28.6)	(\$31.4)	(\$41.2)	(\$110.2)
System Service	(\$11.2)	(\$8.5)	(\$8.8)	(\$18.0)	(\$15.2)	(\$61.7)
General Plant	(\$8.6)	(\$4.8)	\$6.8	\$13.9	\$15.6	\$22.9
Total Reduction, before Proposed ICM	(\$26.8)	(\$18.3)	(\$29.0)	(\$33.4)	(\$42.7)	(\$150.2)
System Renewal - ICM	\$0.0	\$0.0	\$0.0	\$25.4	\$26.9	\$52.3
Total Net Reduction	(\$26.8)	(\$18.3)	(\$29.0)	(\$8.0)	(\$15.8)	(\$97.9)

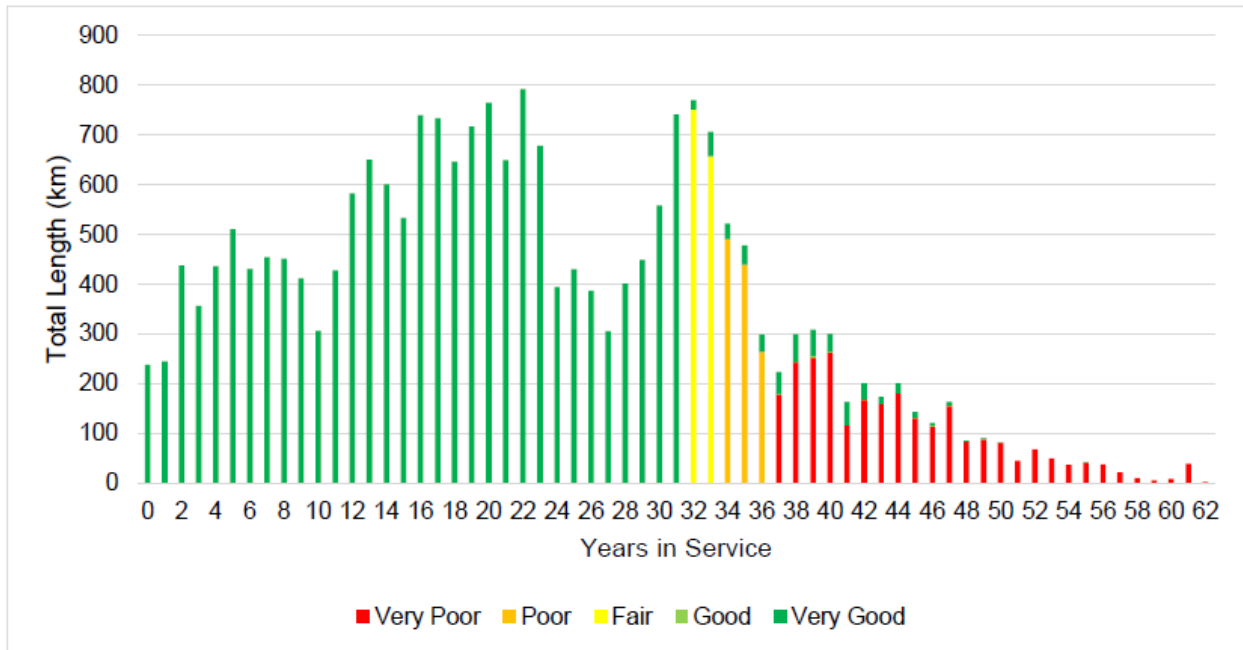
a) Which System Renewal investments in the 2020 DSP continue to be deferred?

Response:

- 1 a) The investments in System Renewal that continue to be deferred are:
- 2 • Rear Lot Conversions
- 3 • Voltage Conversions
- 4 • Mini-Pole Rebuilds
- 5 • Insulator Replacements
- 6 • Substation Renewal
- 7 • Cable Renewal

PWU-6

Reference 1: Exhibit 3, Tab 1, Schedule 2, page 6 of 18, Figure 5



Reference 2: Exhibit 3, Tab 1, Schedule 2, page 15 of 18, lines 5-8

As a result, the amount of deteriorated and failing underground cable has increased from 3,173 km to 3,793 km, representing an increase from 14% to 17% of the population of underground cable that is deteriorating and failing. Over the next three years, Alectra Utilities will experience the first significant wave of XLPE cables nearing the end of typical life.

- a) Please provide an estimate of Alectra's backlog of deteriorated underground cable in 2027 (Alectra's next rebasing year) if the event that the ICMs are not approved and the identified XLPE cables are not replaced or rejuvenated.

Response:

- 1 a) Alectra Utilities projects that the percentage of deteriorated cables will significantly increase
2 from 14% in 2018 to 25% by 2025 if cable renewal investments are completed at the current
3 pace (without ICMs). Alectra Utilities has not completed an assessment of the impact to 2027.

1 As the percentage of deteriorated cable increases, the number of potential cable failures will
2 also increase, diverting funding from proactive cable replacement to reactive. Ultimately, this
3 will lead to cascading failures resulting in more outages and poor reliability for Alectra Utilities'
4 customers. Alectra Utilities aims to maintain reliability at the five-year historical level by
5 improving the reliability for identified areas experiencing increasing cable failures. Please also
6 see Alectra Utilities' response to 1-Staff-11.

PWU-7

Reference: Exhibit 3, Tab 1, Schedule 4, pages 7-8 of 41, lines 25-30 & 1

In total, the incremental cable renewal projects will avoid approximately 450 outages over the next five years. Specifically, Alectra Utilities will avoid approximately 150 cable failure related outages in the Enersource RZ, where each outage would impact approximately 530 customers for one hour. Alectra Utilities will avoid approximately 300 cable failure related outages in the PowerStream RZ, where each outage would impact approximately 330 customers for two hours per outage. In total, the combined investment will avoid approximately 250,000 customer hours of interruption, equivalent to Alectra Utilities' yearly customer 1 hours of interruption for cables.

- a) Please provide an estimate of the lost revenues from underground cable-related interruptions in the Enersource and PowerStream rate zones.**

Response:

- 1 a) Alectra Utilities does not track lost revenues from underground cable-related interruptions.
- 2 The primary driver for this ICM funding request is to address the significant risk of failure
- 3 associated with underground cables in the PowerStream and Enersource RZs. The ICM
- 4 funding will allow Alectra Utilities to complete 28 cable renewal projects in these RZs.

PWU-8

Reference: Exhibit 3, Tab 1, Schedule 2, page 10 of 18, lines 11-13

Since 2018, Alectra Utilities has avoided 5,012 tons of CO2 from the environment by renewing underground cables using cable injection.

- a) Please provide an estimate of the tons of CO2 Alectra will avoid by 2027 resulting from the two ICM projects.**

Response:

- 1 a) Alectra Utilities plans to inject a total of 227 km of cables through the 2023 and 2024 ICM
- 2 projects which are projected to avoid 2,951 tons of CO2 emissions from the environment.

PWU-9

Reference: Exhibit 1, Tab 1, Schedule 4, page 4 of 10

To address this urgent need, Alectra Utilities has identified incremental capital investments in the PowerStream and Enersource RZs to either replace or, where feasible, to rehabilitate using silicone injection to extend the life of the cable in these RZs.

- a) Did Alectra consider applying for similar ICMs in its other rate zones?**
- b) If yes, please list projects that were considered and the reason they were not pursued.**

Response:

- 1 a) and b)
- 2 Please see Alectra Utilities' response to 1-Staff-12.

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Reference 1: Attachment 5 - 2023 ICM Project Listing PRZ

Reference 2: Attachment 6 - 2024 ICM Project Listing PRZ

Reference 3: Attachment 9 - 2023 ICM Project Listing ERZ

Reference 4: Attachment 10 - 2024 ICM Project Listing ERZ

- a) On what date were the project budgets listed in Attachments 5, 6, 9, and 10 prepared?**
- b) Have supply chain issues and/or inflationary pressures materially impacted forecast budgets since the budgets reflected in the attachments were prepared?**
- c) If the response to part b) is yes, please provide updated budgets. If increasing costs have resulted in additional project deferrals, please provide a list of newly deferred projects.**

Response:

- 1 a) As provided in Exhibit 3, Tab 1, Schedule 1, page 2, in March 2022, Alectra Utilities
2 implemented necessary adjustments to the 2022 to 2024 capital investments to account for
3 the impact of supply chain challenges on the cost of materials and services, as well as the
4 effect of inflation. In April 2022, based on customer feedback, Alectra Utilities incorporated
5 the proposed ICM investments in 2023 and 2024.
6
- 7 b) As identified in response to part a), in March 2022, Alectra Utilities adjusted the capital plan
8 to account for the impact of supply chain challenges and inflation. Alectra Utilities is not
9 planning on incorporating any further adjustments to the 2023 and 2024 budgets included in
10 this application for supply chain and/or inflationary pressures.
11
- 12 c) Please see Alectra Utilities' response to part b).