

1-SEC-1

Reference: Exhibit 1, General

- a) Please provide a copy of all material provided to the Applicant's Board of Directors, or any of its committees, regarding cable replacement or injection activities planned for 2024, whether part of the Incremental Capital Module (ICM) projects or otherwise, and any documents showing approval of same.**
- b) Please identify any updates from material provided in Attachment 1 to SEC-1 as part of Alectra's 2023 ICM Application (EB-2022-0013).**

Response:

- 1 a) and b) Cable replacement or injection activities planned for 2024 were identified in Alectra
- 2 Utilities' Capital Investment Plan submitted to the Audit Finance & Risk Committee for
- 3 approval by the Alectra Utilities Board as part of the overall Financial Plan for Alectra Utilities.
- 4 At Attachment 1 are the relevant pages of the Capital Investment Plan portion of the Financial
- 5 Plan wherein capital replacement and capital injection are discussed. References to cable
- 6 replacement or injection are highlighted.

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**Attachment 1
Capital Plan AFRM**



7.0 Capital Plan

7.1 Alectra Utilities Corporation Capital Plan

The AUC CIP for 2023 Plan was developed based on the 2020-2024 DSP and includes certain new investments identified in 2022. The CIP process is described in section 1.4 of the 2023-2027 Financial Plan Supplemental Information package.

The 2023-2027 CIP aligns with AUC's strategy to enhance customer experience, modernize the grid, and enable growth of communities in AUC's service area. Furthermore, the CIP strives to maintain assets in a manner that: (i) delivers sustainable value; (ii) mitigates risks; (iii) complies with regulations, codes, and standards; and (iv) meets corporate performance targets.

2023-2027 Core Capital Expenditure Plan

The five-year capital expenditure plan is organized within four categories corresponding to the OEB's Renewed Framework for Electricity Distributors. Considering all investment categories and RZ, the total core capital expenditure program is expected to be \$1,305.0MM over the 2023-2027 plan period as outlined in Table 53, below (excluding transition capital, capital contingent on incremental ICM funding, AMI 2.0, and the Kennedy Road South facility capital expenditure).

The priority areas of capital investment for the 2023 Plan are the following:

- (i) Enhancing the customer experience;
- (ii) Infrastructure renewal to improve reliability (underground cables, storm resiliency);
- (iii) Supporting growth and development of communities;
- (iv) Optimization of operations, driving productivity and business intelligence; and
- (v) Grid modernization through automation, digitization, and system flexibility.

Management is seeking approval for 2023 total net capital expenditures of \$294.9MM.



The table below provides a breakdown of capital expenditures, including the I/ (D) ("increase/ (decrease)") relative to the 2022 Plan. The values provided in the table below are inclusive of transitional capital investments and the Kennedy Road Operational Centre.

Table 53: Alectra Utilities Corporation Net Capital Expenditures (\$MMs)

	2021A	2022	2023	2024	2025	2026	2022-26 Total	2027
System access	139.5	145.2	168.7	160.7	124.9	120.7	720.2	116.1
System renewal	136.5	129.7	130.0	137.8	138.8	128.1	664.4	124.7
System service	29.2	26.4	19.9	21.7	28.7	40.0	136.7	38.0
Gross distribution capital	305.2	301.3	318.6	320.2	292.4	288.8	1,521.3	278.8
Capital contributions	(72.8)	(93.0)	(96.9)	(96.8)	(64.8)	(61.1)	(412.6)	(58.6)
Net distribution capital	232.4	208.3	221.7	223.4	227.6	227.7	1,108.7	220.2
General plant - core	29.6	39.1	37.9	36.8	33.0	36.0	182.8	40.7
Total net core capital	262.0	247.4	259.6	260.2	260.6	263.7	1,291.5	260.9
Kennedy Road South	8.2	23.4	32.9	—	—	—	56.3	—
Transition capital	7.4	6.8	2.4	3.8	2.9	—	15.9	—
2023 Plan	277.6	277.6	294.9	264.0	263.5	263.7	1,363.7	260.9
2022 Plan	—	292.9	264.9	251.6	261.4	271.9	1,342.7	—
Variance - I/ (D)	—	(15.3)	30.0	12.4	2.1	(8.2)	21.0	—

Alectra Utilities Corporation Capital Plan over Plan Analysis

The table below provides a breakdown of the expected net capital expenditures for the 2023 Plan relative to the 2022 Plan by category.

Table 54: Alectra Utilities Corporation Capital Expenditures - 2023 Plan Variances to 2022 Plan (\$MMs)

	2022	2023	2024	2025	2026	Total
Changes to Capital Expenditures:						
Changes to core capital:						
System renewal	14.4	9.9	7.0	7.9	(5.2)	34.0
System access	(15.6)	9.8	3.6	(7.5)	(5.6)	(15.3)
System service	3.3	(5.8)	(1.4)	(2.7)	0.8	(5.8)
Core general plant	(1.8)	(3.8)	(0.6)	1.5	1.8	(2.9)
Total net core capital changes	0.3	10.1	8.6	(0.8)	(8.2)	10.0
Kennedy Road South	(13.8)	21.9	—	—	—	8.1
Transition capital	(1.8)	(2.0)	3.8	2.9	—	2.9
Variance - I/ (D)	(15.3)	30.0	12.4	2.1	(8.2)	21.0

Plan over plan analysis and key assumptions are detailed below.



System Renewal

System Renewal Plan over Plan Analysis

SR net expenditures are expected to increase by \$34.0MM relative to the 2022 Plan, principally attributable to: (i) higher costs to replace assets reactively (\$20.5MM); (ii) higher costs for planned overhead asset replacements (\$18.7MM); (iii) increased focus on the planned replacement of transformers identified as leaking oil (\$12.1MM); and (iv) increased substation renewal with prioritization on the replacement of hazardous 230kV trench N5H oil filled meter transformer units (\$9.5MM); partially offset by (v) reduced funding available to respond to reliability issues with underground asset renewal (\$21.9MM); and (vi) the deferral of projects to mitigate the lower available funding including the transfer of equipment from rear to front lots (\$4.9MM). The slower pace of planned system renewal investments requires AUC to manage the growing backlog of deteriorated assets in a reactive manner.

System Renewal Key Assumptions

Since 2019, AUC has implemented several initiatives to reverse the trend of worsening reliability. Investments in storm hardening the overhead systems and the implementation of the Asset Analytics Platform, to enable predictive maintenance of vegetation management, have mitigated the impacts of outages caused by adverse weather and tree contacts. Despite efforts to maintain reliable performance, defective equipment continues to be the leading cause of both the duration and frequency of outages. From 2019 to 2021, defective equipment has contributed 43.0% of all customer hours of interruption, three (3) times the amount of the next most significant cause of customer hours of interruption - foreign interference. AUC continues to replace deteriorated and failing equipment. However, customer hours of interruption resulting from defective equipment has increased by an average annual rate of 9.0% from 2017 to 2021. The increasing pace and magnitude of customer hours of interruption, stemming from defective equipment, represent the single most significant driver - primarily from the failure of direct-buried underground cable and accessories. SR investments consist of projects that involve replacing or refurbishing system assets which extend the service life of the assets. For underground cables AUC plans either to replace or, where feasible, to rehabilitate using silicone injection to extend the life of the cable.



The following table outlines the core capital expenditures in SR, excluding any transition expenditures.

Table 55: Alectra Utilities Corporation Net Capital Expenditures - System Renewal (\$MMs)

	2021A	2022	2023	2024	2025	2026	2022-26 Total	2027
Underground asset renewal	55.6	51.3	51.5	51.0	50.8	43.6	248.2	36.1
Overhead asset renewal	39.8	36.6	40.0	48.3	47.4	42.1	214.4	39.5
Reactive capital	26.8	29.5	23.1	23.6	24.1	24.6	124.9	25.1
Transformer renewal	6.9	6.5	9.0	9.2	9.4	9.6	43.7	9.7
Substation renewal	7.3	4.8	6.4	5.7	7.1	8.2	32.2	12.6
Rear lot conversion	0.1	1.0	—	—	—	—	1.0	1.7
Total gross system renewal	136.5	129.7	130.0	137.8	138.8	128.1	664.4	124.7
Capital contributions	—	—	—	—	—	—	—	—
2023 Plan	136.5	129.7	130.0	137.8	138.8	128.1	664.4	124.7
2022 Plan	—	115.3	120.1	130.8	130.9	133.3	630.4	—
Variance - I/ (D)	—	14.4	9.9	7.0	7.9	(5.2)	34.0	—

SR projects are identified and planned in a manner consistent with AUC investment principles. They represent investments in reactive repairs and replacements to the distribution system in response to failures or other damage, as well as investments in distribution system renewal in targeted asset categories to mitigate declining reliability due to asset failures and outages. Approximately 38.0% of the capital to be invested in SR projects are focused on underground asset renewal, which is the primary contributor to declining reliability performance on the system.

AUC has entered a critical juncture as it plans to deal with a period of heightened capital asset renewal, as a large population of deteriorating assets are reaching their end of life. The first generation of underground cable technology was installed in the early 1960s, coincidentally, with the start of large scale municipal growth and expansion. AUC and its predecessors have been renewing the oldest cables on its system for some time now, but a significant population of older underground cable assets are still currently in operation that are aged 40-60 years. These assets are first generation cable technology, also known as Cross Linked Polyethylene Cable ("XLPE"), which are mostly beyond their useful life and in very poor condition. This first generation cable was buried directly in the ground which has led to early degradation. Removal and replacement of this cable is costly and disruptive and requires lengthy outages during the repair process. These cables must be dealt with as a matter of priority and urgency and cannot be deferred.

Municipal growth and expansion continued at an exponential rate during the 1970s and accelerated during the 1980s. This growth was abruptly curtailed in the early 1990s due to an economic recession. The expansions during this period were mostly installed with underground assets. This was, and continues to be, the standard for greenfield expansion. This period of high growth resulted in an asset bubble that is proving to be challenging on our available capital resources to effectively renew these assets under the current funding structure. For several years, AUC and its predecessor companies have been increasing capital investment in underground cable replacement, but it has proven to be challenging and insufficient to keep pace with the continual aging of the assets.



The 2020-2024 DSP addresses the replacement of cable in poor or very poor condition in, largely, XLPE cables. The DSP also addresses some of the remaining population of cable installed between 1980-1990 that are eligible candidates for cable insulation injection to extend the life of the cable in this category. The cable injection technology is a viable mitigation opportunity; however, it must be performed prior to the point that insulation has not deteriorated beyond rehabilitation or else the injection will not be effective, and the only solution is a complete replacement of the cable.

AUC underground system renewal investments during the 2023-2027 period were reduced from the renewal investment levels identified in the DSP for AUC to balance capital investment levels to funding available through distribution rates and incremental funding provided by eligible ICM projects. As a result, AUC will prioritize available funding to address only the most deteriorated underground cable, maximize the opportunity to refurbish deteriorating cable with injection technology, and increase monitoring of failures to manage the risk of increasing cable failures that could lead to prolonged outages for customers. The planned 2023 CIP investment includes \$233.0MM in underground equipment which includes cable replacement, cable injection, and switchgear renewal.

Over the last five years, AUC has experienced increasing severity and duration of overhead system outages. Coupled with the fact that AUC operates a large population of poles and associated hardware in poor and very poor condition, these assets are susceptible to fail under severe adverse weather events. In order to address public and worker safety concerns, and reliability needs stemming from increased frequency and intensity of climate change disruptions, AUC plans to invest in the replacement and remediation of overhead assets that are deteriorated or otherwise prone to failure from adverse weather conditions. A focus will be on renewing deteriorated poles that have been identified through AUC's Asset Condition Assessment process as being in poor or very poor condition, either through reinforcement or replacement. Reinforced replacement poles are more resilient to ice and wind loading standards. AUC plans to target a population of wood poles in circumstances where they carry four circuits as failure impacts a substantial number of customers. This investment is essential to mitigate the risk of frequent failures and energized downed lines. The planned investment in overhead renewal over the five-year period 2023-2027 is \$217.2MM.

Incremental Capital Funding for Underground Renewal

In 2022 AUC filed a multi-year ICM application for capital investment needs to address deteriorated and failing underground cables in the PowerStream and Enersource RZ. AUC applied for \$52.3MM of incremental funding for cable renewal capital investments to be implemented over the 2023 to 2024 plan period.

AUC also identified the need for cable renewal investment in Alectra's 2018 EDR application. In its decision, the OEB stated that ICM funding was not available for typical annual capital programs and denied funding for these projects. Due to the uncertainty associated with OEB approvals, the 2023 Plan does not include incremental capital investment, nor the corresponding incremental funding.

2-SEC-2

Reference: Exhibit 2, Tab 1, Schedule 1, Attachment 7

Attachment 7 compares the OEB approved Input Price Index (IPI) for 2013 to 2024 to a Geometric Mean. For 2014, 2015, 2018 and 2019, the Geometric Mean is greater than the IPI. For the remaining years, the IPI is the same or higher. Alectra has approved ICMs for 2017, 2018, 2019 and 2023.

- a) Please confirm that in 2019, had the ICM model used the Geometric Mean instead of the IPI, the maximum eligible capital for the Powerstream Rate Zone (PRZ) would have been less and therefore the OEB approved amount would also have been less.**
- b) Should the OEB’s approved IPI drop in future years, before Alectra’s next rebasing in 2027, and Alectra requests a further ICM in 2025 or 2026, what inflation rate would Alectra propose be used, i.e., the IPI for that year, a Geometric Mean or something else?**

Response:

- 1 a) The Geometric Mean calculation for 2019 using the OEB approved inflation factor values over
- 2 2018-2019 period is provided in Table 1 below. The geometric mean for the PowerStream RZ
- 3 in 2019 would have been 1.34% compared to the OEB-approved inflation factor of 1.5% for
- 4 2019. As a result, the maximum eligible incremental capital would have been higher than what
- 5 was calculated at that time.

Table 1: Geometric Mean Calculation for PRZ

Year	2018	2019	2020	2021	2022	2023	2024
OEB-Approved Inflation Factor Values	1.20%	1.50%	2.00%	2.20%	3.30%	3.70%	4.80%
PowerStream RZ Inflation Factor	1.34%						

Note: The PRZ specific inflation factor based on the geometric mean is calculated using the inflation factor values over 2018-2019 period

- 8 A comparison of the Materiality Threshold Capital Expenditure and Maximum Eligible
- 9 Incremental Capital calculation between what was approved for PRZ in 2019 and the updated
- 10 calculation using the Geometric Mean is provided in Tables 2 and 3 below.

1 **Table 2: Threshold Capital Expenditure Calculation – PRZ**

Description	2019 Geometric Mean	2019 IPI
Inflation	1.34%	1.50%
Less: Productivity Factor	0.00%	0.00%
Less: Stretch Factor	0.30%	0.30%
Price Cap Index	1.04%	1.20%
Growth Factor	1.11%	1.11%
Rebasing Year	2017	2017
# Years since rebasing	2	2
Price Cap Index	1.04%	1.20%
Growth Factor	1.11%	1.11%
Dead Band	10%	10%
Rate Base	\$1,082,805,165	\$1,082,805,165
Depreciation	\$52,272,173	\$52,272,173
Threshold Value		
Price Cap IR Year 2019	156%	159%
Threshold CAPEX		
Price Cap IR Year 2019	\$81,459,149	\$83,289,658

2
3 **Table 3: Maximum Eligible Incremental Capital – PRZ**

Eligible Incremental Capital	2019 Geometric Mean	2019 IPI
Capital Budget	102,074,174	102,074,174
Less: Materiality Threshold	81,459,149	83,289,658
Maximum Eligible Incremental Capital	\$20,615,025	\$18,784,516

4
5 b) Please see Alectra Utilities' response to 1-Staff-2.

2-SEC-3

Reference: Exhibit 2, Tab 1, Schedule 1, p. 5

In Alectra’s Reply Submission (September 15, 2022) in the 2023 ICM Application, Alectra stated, with respect to OEB staff’s submission regarding use of the geometric inflation rather than the most up to date: “Regarding OEB staff’s comments on the impacts of inflation for the requested 2024 funding, Alectra Utilities takes no position other than to comment that in its view amendments to ICM policy should be considered through a policy review process rather than as part of this proceeding.”

Please explain why Alectra has changed its position on the Board allowing a change to the policy, related to the inflation used in the ICM model, e.g., the use of geometric mean in an application and not as part of a generic review.

Response:

- 1 Please see Alectra Utilities’ response to 1-Staff-2.

2-SEC-4

Reference: Exhibit 2, Tab 1, Schedule 1, pp. 12 & 20

Alectra states that the proposed investment for the PRZ “...will avoid approximately 106 cable failure related outages ... where each outage would impact 265 customers for approximately two hours per outage. Further, Alectra Utilities has forecast that the combined proposed ICM investment in both RZs will avoid future cable renewal costs of approximately \$108MM”, and for the Enersource Rate Zone (ERZ) the investment “...will avoid approximately 49 cable failure related outages... where each outage would impact 441 customers for approximately one hour per outage”.

- a) Please show how the above information is determined.**
- b) What is the avoided cost to customers of the avoided outages?**
- c) What was the total capital spent on reactive cable renewal for each year 2017-2022 and to date for 2023?**

Response:

1 a) Please see Alectra Utilities’ response to 1-Staff-17 a) for the explanation of methodology used
2 to determine the \$108MM in avoided future cable renewal costs.

3
4 Alectra Utilities quantifies the number of customers impacted and average duration of a cable
5 related outage for each rate zone based on:

6
7 1) Historical failure rates for cable related outages in each rate zone as compared to the
8 amount of cable installed in that rate zone. This average rate is then apportioned to the
9 amount of cable proposed for remediation as per the project scope; and

10 2) Recent outage events are also taken into account to adjust the expected average failure
11 amount for a project scope to quantify the projected near-term outages impacts.

12
13 The 106 avoided cable failure related outages for PRZ are derived from aggregating each
14 proposed incremental PRZ cable renewal project’s avoided outage over the five-year horizon
15 from 2025 to 2029.

16
17 Similarly, the 49 avoided cable failure related outages for ERZ are derived from aggregating
18 each proposed incremental ERZ cable renewal project’s avoided outage over the five-year
19 horizon from 2025 to 2029.

1 b) Alectra Utilities projects that the total five-year avoided customer cost for the proposed
2 incremental cable renewal projects in PRZ is \$31.6MM and in ERZ is \$13.1MM.

3
4 Alectra Utilities calculates the societal cost of an outage to a customer based on the duration
5 of the outage, the mix and types of customers impacted by the outage (residential,
6 commercial, industrial), the magnitude of energy demand lost adjusted for diversity of load
7 and customer interruption cost based on work completed at the University of Saskatchewan
8 by Dr. Roy Billinton.

9
10 Please see page 12 to 16 of Appendix L of the 2020-2024 DSP¹ for a detailed explanation of
11 the calculation used by Alectra Utilities to calculate the societal cost of an outage to the
12 customer.

13
14 c) Alectra Utilities continues to harmonize and enhance tracking and financial reporting of
15 reactive capital expenditures to the granular level as to distinguish reactive work categorized
16 by type of equipment involved. Financial reporting enhancement work completed to date
17 enables Alectra Utilities to present reactive capital expenditures based on rate zone
18 expenditures only. As such, Alectra Utilities presents reactive capital expenditures from 2017
19 to Forecasted 2023 in aggregate for all equipment assets in the Table below.

20
21 **Table 1 – Reactive Capital for PRZ and ERZ**

Reactive Capital Expenditures (\$MM)	2017	2018	2019	2020	2021	2022	2023
PRZ Reactive Capital (All Assets)	9.4	11.3	9.8	7.5	10.9	14.0	9.6
ERZ Reactive Capital (All Assets)	0.4	0.2	5.1	4.6	4.3	6.1	4.6
Total PRZ & ERZ Reactive Capital (All Assets)	9.7	11.4	14.9	12.1	15.2	20.1	14.2

22

¹ EB-2019-0018/Ex4/Tab01/Sch01

2-SEC-5

Reference: Exhibit 2, Tab 1, Schedule 1, Tables 10 & 17

Tables 10 & 17 both show the total bill impact of the proposed 2024 riders. Please provide the underlying Excel spreadsheets which show the calculation of these impacts.

Response:

- 1 Alectra Utilities has provided the calculation of the proposed ICM bill impacts as Attach 1_2024
- 2 ICM Bill Impact Calculation.
- 3
- 4 Please also see Alectra Utilities' response to 2.0-VECC-4 that provides the ICM bill impacts
- 5 percentage increase of distribution portion of the bill.

2-SEC-5

Attachment 1 2024 ICM Bill Impact Calculation

2024 ICM Rate Riders - PowerStream RZ

Rate Class	Unit	Service Charge Rate Rider	Volumetric Rate Rider
Residential	kWh	\$0.16	\$0.0000
General Service Less Than 50 kW	kWh	\$0.17	\$0.0001
General Service 50 To 4,999 kW	kW	\$0.83	\$0.0248
Large Use	kW	\$35.86	\$0.0132
Unmetered Scattered Load	kWh	\$0.05	\$0.0001
Sentinel Lighting	kW	\$0.02	\$0.0583
Street Lighting	kW	\$0.01	\$0.0373

Source: Tab 11 ICM Model

Fixed	kWh	kW	ICM Monthly Rate Rider ¹
1	750		\$0.16
1	2,000		\$0.37
1	80,000	250	\$7.03
1	2,800,000	7,350	\$132.88
1	150		\$0.07
1	180	1	\$0.08
27,223	1,052,445	2,962	\$382.71

2023 Total Bill Before HST & OER (Approved)	% Increase vs 2023 Total Bill
\$ 122.65	0.13%
\$ 316.18	0.12%
\$ 11,323.31	0.06%
\$ 378,197.16	0.04%
\$ 31.43	0.22%
\$ 42.12	0.19%
\$ 206,715.94	0.19%

2024 ICM Rate Riders - Enersource RZ

Rate Class	Unit	Service Charge Rate Rider	Volumetric Rate Rider
Residential	kWh	\$0.12	\$0.0000
General Service Less Than 50 kW	kWh	\$0.21	\$0.0001
General Service 50 To 499 kW	kW	\$0.37	\$0.0224
General Service 500 To 4,999 kW	kW	\$8.48	\$0.0115
Large Use	kW	\$66.89	\$0.0143
Unmetered Scattered Load	kWh	\$0.04	\$0.0001
Street Lighting	kW	\$0.01	\$0.0560

Source: Tab 11 ICM Model

Fixed	kWh	kW	ICM Monthly Rate Rider ¹
1	750		\$0.12
1	2,000		\$0.41
1	100,000	230	\$5.52
1	400,000	2,250	\$34.36
1	3,000,000	5,000	\$138.39
1	300	300	\$0.07
1	33	0.1	\$0.02

2023 Total Bill Before Tax (Approved)	% Increase vs 2023 Total Bill
\$ 121.14	0.10%
\$ 327.32	0.13%
\$ 13,666.47	0.04%
\$ 68,322.26	0.05%
\$ 389,167.41	0.04%
\$ 54.31	0.13%
\$ 6.85	0.29%

1. Before HST and OER

3-SEC-6

Reference: Exhibit 3, Tab 1, Schedule 1, Table 19

Table 19 summarizes the net reductions by the Distribution System Plan (DSP) capital investment category. Please update the information for 2023 with actuals to date and provide an updated 2023 forecast, if applicable.

Response:

- 1 Alectra Utilities has provided Table 1 below showing the variance against the DSP by OEB investment category with 2023 actuals
- 2 (month end August) and an updated 2023 forecast.

3 Table 1 – Variance by Investment Category (\$MM)

Investment Category	Variance against DSP						Updated 2023 Value	
	Actual 2020	Actual 2021	Actual 2022	2023 Forecast (Updated)	Budget 2024	Total	2023 Year to Date	Updated 2023 Forecast
System Access	(3.5)	0.5	(15.9)	(1.8)	(3.6)	(24.3)	42.3	65.3
System Renewal	(3.5)	(5.5)	(19.9)	5.4	(14.4)	(37.9)	95.0	161.5
System Service	(11.2)	(8.5)	(11.6)	(22.4)	(18.1)	(71.8)	12.3	20.0
General Plant	(8.6)	(4.8)	0.7	4.5	12.1	3.9	21.5	34.8
Total	(26.8)	(18.3)	(46.7)	(14.3)	(24.0)	(130.1)	171.1	281.6

4

3-SEC-7

Reference: Exhibit 3, Tab 1, Schedule 1, Table 20

Table 20 shows the total reductions made to Underground Asset Renewal and other investment categories over the 2020-2024 period. It also shows an increase in capital spending of \$24.2M in Information Technology (IT) and \$9.9M in Other.

- a) Please expand Table 20 (with updated info from the previous interrogatory, if applicable) to show the changes in each category by year to total the sums shown.**
- b) Table 20 provides a “re-balancing of expenditures ... to align the capital investments with the funding available under the Price Cap formula”. Please explain the decision to prioritize IT and Other spending over Underground Asset Renewal and Lines Capacity.**
- c) What is the total forecasted spending on cable injection and replacement in 2024, and how much is funded through base rates?**
- d) Please explain what the increase in Other is for.**
- e) In the Decision and Order (November 17, 2022) for the 2023 ICM Application (EB-2022-0013), the OEB stated that “..., it also finds that Alectra Utilities’ capital planning and execution could be improved going forward. This finding is based on Alectra Utilities’ prioritization of general plant capital planning, in particular the prioritization of its customer experience capital expenditures planning ahead of its cable renewal program...” Please explain what changes to Alectra’s capital planning and execution have been made as a result of the OEB’s findings for 2023.**

Response:

- 1 a) Please see Alectra Utilities’ response to AMPCO-13 which also includes an updated 2023
2 forecast. The total variance relative to the DSP, based on the updated 2023 forecast is
3 (\$130.1MM) compared to (\$129.0MM) included in the pre-filed evidence.
4
- 5 b) Please see Alectra Utilities’ response to 1-Staff-9 d) h) i).
6
- 7 c) The total forecast spending on cable injection, replacement and emerging underground
8 projects in 2024 is \$67.4 million (inclusive of proposed ICM projects). Alectra Utilities is
9 applying for Incremental Capital funding of \$25.1 million for 2024 and the remaining \$42.3MM
10 is proposed to be funded through base rates.
11
- 12 d) Table 20 provides the change from the DSP over the 2020-2024 period, highlighting the major
13 areas of change. In the table, “Other” is primarily driven by an increase in SCADA &

- 1 Automation to reduce the impact of worsening reliability and Overhead Asset Renewal
- 2 investments to mitigate safety risks and impact from severe storms.
- 3
- 4 e) Please see Alectra Utilities' response to 1-Staff-9 h).

3-SEC-8

Reference: Exhibit 3, Tab 1, Schedule 2, Table 21

- a) Please provide a table in the form of Table 21 for each of the Applicant’s rate zones and include information for 2023 year to date.
- b) Please provide a table showing the kilometers of direct-buried XLPE cable for 2021, 2022 and 2023 to date for each rate zone.
- c) When did Alectra stop installing direct-buried XLPE cable?

Response:

- 1 a) Table 1 below provides the UG Cable renewal investments by rate zone and includes the
- 2 latest 2023 forecast and year to date August actuals.

3 **Table 1 – UG Cable Renewal Investments (\$MM)**

Investment	Actual 2018	Actual 2019	Actual 2020	Actual 2021	Actual 2022	2023 Forecast	2023 Year-to-date	Total
BRZ	4.0	4.3	5.9	11.0	5.6	5.0	3.2	39.0
Cable Renewal - Replacement	4.0	1.7	0.9	4.4	0.7	2.1	1.6	15.4
Cable Renewal - Injection	0.0	1.0	3.5	5.6	4.5	2.0	1.3	17.9
Emerging Underground Projects	0.0	1.6	1.5	1.0	0.4	0.9	0.3	5.7
ERZ	16.1	14.5	16.2	12.6	8.2	15.5	6.1	89.2
Cable Renewal - Replacement	16.1	13.8	15.2	9.8	6.9	12.4	4.6	78.8
Cable Renewal - Injection	0.0	0.0	0.0	0.0	0.9	2.0	0.8	3.7
Emerging Underground Projects	0.0	0.7	1.0	2.8	0.4	1.1	0.7	6.7
PRZ	13.4	12.4	21.7	16.7	13.2	30.1	14.2	121.7
Cable Renewal - Replacement	9.8	6.7	11.9	6.3	6.5	16.5	5.4	63.1
Cable Renewal - Injection	3.6	3.8	7.9	7.4	6.3	11.9	8.2	49.1
Emerging Underground Projects	0.0	1.9	1.9	3.0	0.4	1.7	0.6	9.5
GRZ	0.6	1.5	1.6	1.2	0.7	0.5	0.2	6.3
Cable Renewal - Replacement	0.6	1.4	1.6	1.0	0.0	0.0	0.0	4.6
Cable Renewal - Injection	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Emerging Underground Projects	0.0	0.1	0.0	0.2	0.7	0.5	0.2	1.7
HRZ	9.0	9.3	9.5	7.6	11.3	10.7	5.7	63.1
Cable Renewal - Replacement	6.7	7.5	5.8	3.8	6.1	7.4	4.7	42.0
Cable Renewal - Injection	0.0	0.2	0.1	0.7	1.1	1.2	0.2	3.5
Emerging Underground Projects	2.3	1.6	3.6	3.1	4.1	2.1	0.8	17.6
Grand Total	43.1	42.0	54.9	49.1	39.0	61.8	29.4	319.3

- 4
- 5 b) Table 2 below provides the kilometer breakdown of direct-buried cables for 2021, 2022, and
- 6 2023 (as of August 2023), by rate zone. Alectra Utilities wishes to clarify that records and

1 asset information continue to be updated in the Geographical Information System to reflect
2 the most accurate location, length and layout and other asset attributes, especially for
3 infrastructure installed subsurface, such as direct-buried cables, before digitization of records
4 and computer aided design.

5

6 **Table 2 – Total Length (km) of Direct-buried XLPE Cables in 2021-2023**

	East (PRZ)	Central South (ERZ)	Central North (BRZ)	West (HRZ)	South West (GRZ)	Total
Dec 2021	3,167	2,385	987	1,238	303	8,080
Dec 2022	3,140	2,359	979	1,029	302	7,810
August 2023	3,151	2,344	1,016	1,022	300	7,834

7

8 c) Legacy utilities that formed Alectra Utilities transitioned at different times and pace from direct
9 buried cables to in-duct installation practices. Alectra Utilities installation records indicate that
10 transition of installing underground cable from direct-buried to in-duct construction practices
11 concluded in the early 1990s.

3-SEC-9

Reference: Exhibit 3, Tab 1, Schedule 2, Table 22

Table 22 provides a list of the 16 projects for which Alectra is requesting ICM funding for in 2024. In its 2023 ICM Application (EB-2022-0013, Table 28), Alectra listed 28 high priority projects it was requesting ICM funding for in 2023 (\$25.3M) and 2024 (\$27.0M). In the Decision and Order (November 17, 2022), the OEB approved \$16.2M for PRZ and \$1.9M for ERZ.

- a) Please provide a listing of the projects from Table 28 that Alectra has, or plans to proceed with, for 2023 based on the approved funding, and the status of each project that has/will proceed, i.e. revised budget if applicable, spending to date and expected in service date.
- b) Alectra has indicated that four of the projects in the current application for ERZ in 2024 have been moved into this application from the 2023 project list in the 2023 ICM Application. For any other projects in the 2023 list that will not proceed and are not included in the new 2024 list, please provide an explanation of how Alectra intends to proceed with these projects.
- c) Please provide an explanation for any changes from Table 28 for 2024 from Table 22, e.g., budget amounts or projects which have been deferred.
- d) Please provide details on any reactive repairs or emergency replacements that have been done in 2022 and 2023 to date, and indicate if the work was done on cables that were part of the 28 projects listed in the 2023 ICM Application.
- e) In the 2023 ICM Application (EB-2022-0013), just below Table 28, Alectra stated that it would be completing 24 projects supported by base rates.
 - i. Please provide details on the status of those funded by base rate projects that Alectra has or plans to proceed with in 2023.
 - ii. Is the list of 2024 projects that were to be funded by base rates as of the 2023 ICM application the same as those currently planned for 2024? If not, please provide an update.

Response:

- 1 a) Please see Alectra Utilities response to 1-Staff-5.
- 2
- 3 b) If the ICM funding requested is approved, Alectra Utilities will be able to reduce the backlog
- 4 of deteriorated assets and complete any deferred projects in subsequent years base funding.
- 5
- 6 c) Please see Alectra Utilities' response to 1-Staff-5.

1 d) In total, 20 of the 28 projects that required asset repairs or replacements have had outages in either 2022 or 2023. A listing by
2 project is provided in Table 1.

3 **Table 1 – ICM Projects from EB-2022-0013 with Cable outages in 2022 or 2023 YTD**

Project Name	Outages in 2022 Caused by Cables	Outages YTD 2023 Caused by Cables
Cable Replacement Project - (M21) - Raymerville Dr, Markham	0	0
Cable Injection Project - (M21) - Cairns Drive area of Markham	0	0
Cable Replacement Project - (V51) - Ashbridge Circle area in Vaughan	3	1
Cable Replacement Project - (M44) - Cochrane Dr (North) - Scolberg (South), Markham	2	0
Cable Replacement Project - Aviva Park Area of Vaughan (V36)	1	1
Cable Replacement Project - (M15) - Larkin Ave area of Markham	2	1
Cable Replacement Project - (V26) - St. Joan of Arc area of Vaughan	0	0
Cable Replacement Project - (A09) - Hammond Dr area of Aurora	0	2
Cable Replacement Project - (A10) - Baston Dr, Aurora	5	2
Cable Injection Project - (BR5) - 8th Line and Highway 11, Bradford	0	0
Cable Injection Project - (V24) - Creditstone Rd area of Vaughan	0	0
Cable Injection Project - (V26) - McNaughton Road area of Vaughan	0	0
Cable Injection Project - (V50) - Sovereign Court area of Vaughan	0	0
Cable Replacement Project - (AREA46) - Montevideo & Battleford, Mississauga	6	3
Cable and Transformer Replacement Project - (AREA25) - Glen Erin & Burnhamthorpe, Mississauga	5	1
Cable Replacement- Tomken Trail in Mississauga (AREA36)	3	0
Cable Replacement- Main Feeder Cable on Cantay Road, Mississauga (AREA 44)	0	0
Cable Replacement Project - (AREA16) - Hemus Square, Mississauga	6	2
Cable Replacement Project - (AREA19) - Dixie Rd and Winding Trail, Mississauga	4	0
Cable Replacement Project - (AREA25) - South Millway, Mississauga	5	1
Cable Injection - (AREA56) - Derry Rd W & Ninth Line, Mississauga	4	2
Cable Injection - (AREA 39) - Glen Erin Dr and and Bell Harbour Dr, Mississauga	2	0
Cable Injection - (AREA43-51) Edwards Blvd area of Mississauga	3	0
Cable Injection - (AREA58 & 59) - Winston Churchill & The Collegeway, Mississauga	2	0
Cable Injection Project - (V17) - Jacob Keffer Parkway area of Vaughan	1	2
Cable Injection Project - (A09) - Willow Farm Lane of Aurora	0	2
Cable Injection Project - (R23) - Kersey Cr area of Richmond Hill	1	0
Cable Injection Project - (V51) - Bainbridge Ave, Vaughan	3	1

4

- 1 e) i) The 24 base funding projects in EB-2022-0013 included 7 multi-year (2023/2024) projects,
2 10 projects scheduled for completion in 2023, and 7 projects scheduled for completion in
3 2024. Where multi-year projects were listed, the projects were designed such that the scope
4 in the given year allowed for assets to be placed in service. Of the projects that were
5 scheduled for completion in 2023, 3 projects in the ERZ will not be completed in 2023 due to
6 reprioritization after the 2023 ICM decision. All remaining projects are expected to be in-
7 service before year end.
8
- 9 ii) There were no changes to the base project listing in the PRZ. For the ERZ, the following 2
10 projects are no longer included as base projects in 2024: Cable Remediation- Main Feeder
11 Cable (S5230 to S5227) and Cable Injection - (AREA43 & 51) - Hurontario & Derry Rd W,
12 Mississauga. The following 3 projects are now included as base projects in 2024 after the
13 optimization process: Cable and Transformer Replacement Project - (AREA24) -
14 Burnhamthorpe & Miss. Road, Mississauga; Cable Injection - (AREA30) - Eglinton Ave W &
15 Miss Rd, Mississauga; and Cable Injection- (AREA 38) - Bristol & Creditview.

3-SEC-10

Reference: Exhibit 3, Tab 1, Schedule 2, Table 22

Table 22 lists the 16 projects that Alectra is requesting ICM funding for and Alectra states that 17 additional projects will be funded by base rates. How does Alectra determine which projects will be funded under base rates and which will be funded as part of an ICM?

Response:

- 1 Please see Alectra Utilities' response to 1-Staff-4 d) i).

3-SEC-11

Reference: Exhibit 3, Tab 1, Schedule 4, p. 7

Alectra states “Alectra Utilities has identified 16 distinct projects that are required to address urgent and necessary cable renewal work in the Enersource and PowerStream RZs”. Should the OEB approve Alectra’s request for the 2024 ICM and Alectra also completes those 2024 urgent projects done under base funding:

- a) How many urgent cable renewal projects does Alectra forecast having in 2025 and 2026 and what is the forecasted cost for each year?**
- b) Does Alectra anticipate applying for further ICM funding in 2025 and 2026 for cable renewal?**
- c) Does Alectra plan to update its DSP to cover 2025 and 2026?**

Response:

- 1 a) Alectra Utilities will develop 2025 capital plans as part of the annual capital planning process
- 2 in 2024 utilizing the most up to date information at that time. Hence, plans for 2025 and 2026,
- 3 including specifics related to the number, scope and forecasted investment levels of urgent
- 4 cable renewal projects are not yet finalized.
- 5
- 6 b) and c) Please see Alectra Utilities’ response to 3.0-VECC-9.

3-SEC-12

Reference: Exhibit 3, Tab 1, Schedule 4

Exhibit 3-1-4 provides information on each of the 16 proposed ICM projects.

a) Please summarize this information for each project in a table showing the following:

Project #	Rate Zone	Cable Replacement (CR) or Cable Injection (CI)	Km to be replace/injected	Cost	Condition of the Cable	Customer hours of interruptions to be avoided*

***Note that the customer hours of interruptions to be avoided should be shown on a comparable basis, i.e. for the same year.**

b) Please provide an additional table showing the same information for those cable replacement/injection projects that will be done under 2024 base funding.

Response:

- 1 a) Table 1 provides a summary of information for the 16 proposed ICM projects presented in
- 2 Exhibit 4, Tab 1, Schedule 4.

1 **Table 1 – Summarized information for 2024 ICM projects**

Project #	Rate Zone	Cable Replacement (CR) or Cable Injection (CI)	Km to be replaced/injected	Cost	Condition of the Cable	Customer hours of interruptions to be avoided
151329	PRZ	CR	2.6	\$ 1.60	Very Poor	2,726
151361	PRZ	CI	19.4	\$ 1.70	Very Poor	1,717
151367	PRZ	CI	17.1	\$ 1.70	Fair/Very Poor	2,726
151403	ERZ	CR	2.5	\$ 1.60	Very Poor	1,052
151407	ERZ	CR	6.5	\$ 2.40	Very Poor	1,769
151431	ERZ	CI	9.1	\$ 1.30	Fair	5,149
151435	ERZ	CI	10.0	\$ 1.50	Fair	10,311
151456	PRZ	CI	15.0	\$ 1.30	Poor	3,892
151459	PRZ	CI	20.2	\$ 2.20	Poor	3,892
151517	PRZ	CI	14.0	\$ 1.00	Fair/Poor	1,635
151903	ERZ	CR	1.5	\$ 1.10	Very Poor	5,578
151913	PRZ	CR	3.3	\$ 2.10	Fair	2,726
151935	PRZ	CR	3.2	\$ 1.90	Poor	2,353
152373	PRZ	CR	3.0	\$ 1.90	Very Poor	2,726
152375	PRZ	CR	2.2	\$ 1.40	Fair	1,635
152387	PRZ	CI	5.4	\$ 0.60	Fair/Poor	5,039

2

1 b) Table 2 provides a summary of information for the 2024 base projects

2 **Table 2 – Summarized information for 2024 base projects**

Project #	Rate Zone	Cable Replacement (CR) or Cable Injection (CI)	Km to be replaced/injected	Cost	Condition of the Cable	Customer hours of interruptions to be avoided
151290	BRZ	CR	1.3	\$ 1.18	Very Poor	808
151309	BRZ	CI	7.0	\$ 0.66	Fair	303
151424	ERZ	CR	3.4	\$ 3.13	Poor	5,114
151904	ERZ	CR	3.3	\$ 3.01	Very Poor	1,611
151432	ERZ	CI	16.4	\$ 2.39	Fair	263
151408	ERZ	CR	2.0	\$ 1.82	Very Poor	698
152383	ERZ	CI	12.0	\$ 1.75	Fair	4,552
151428	ERZ	CI	7.1	\$ 0.60	Poor	1,533
151894	ERZ	CR	0.2	\$ 0.22	Very Poor	577
151890	ERZ	CR	0.2	\$ 0.14	Very Poor	175
151296	HRZ	CI	3.4	\$ 0.48	Poor	776
151308	HRZ	CI	1.4	\$ 0.20	Poor	310
150255	PRZ	CR	1.4	\$ 1.37	Very Poor	1,635
150262	PRZ	CR	1.9	\$ 1.09	Very Poor	1,635
150263	PRZ	CR	5.7	\$ 3.01	Very Poor	4,906
151360	PRZ	CI	13.3	\$ 1.37	Very Poor	3,816
151362	PRZ	CI	20.0	\$ 1.85	Very Poor	3,816
151363	PRZ	CI	13.0	\$ 0.99	Poor	2,726
151520	PRZ	CI	7.7	\$ 0.71	Poor	1,635
151336	PRZ	CR	3.5	\$ 1.84	Very Poor	1,635
152385	PRZ	CI	11.6	\$ 1.03	Poor	2,726
151911	PRZ	CR	3.9	\$ 2.24	Poor	4,361
152492	PRZ	CI	2.4	\$ 0.18	Very Poor	1,635

3