

1                   **TECHNICAL CONFERENCE UNDERTAKING RESPONSES TO**  
2                   **ASSOCIATION OF MAJOR POWER CONSUMERS IN ONTARIO**

3  
4   **UNDERTAKING NO. JT3.18:**

5   **Reference(s):           2B-AMPCO-29**

6  
7   For each of the years 2020 to 2024, to provide copies of the project variance reports for  
8   projects greater than \$1 million, where the cost variance is 30 percent or greater,  
9   including if there were multiple reports for a project, so a multiyear project that has  
10   individual project variance reports; to advise which of the project variance reports  
11   provided required approval from senior management and executive team, due to the  
12   change in cost.

13  
14   **RESPONSE:**

15   In reviewing the transcript, Toronto Hydro notes that this undertaking does not accurately  
16   capture the scope of the request. The scope of the undertaking was to provide the  
17   requested information for the years 2020-2023.

18  
19   As shown in the tables below, Toronto Hydro executes hundreds of planned distribution  
20   capital projects each year as part of its execution work plan (EWP). Project variances are  
21   commonly attributable to the following types of execution challenges and complexities  
22   associated with doing work in Toronto Hydro’s dense urban service territory:

- 23       • Additional work zone coordination requirements from the City of Toronto,  
24           including additional traffic control, coordination for CafeTO, work after hours and  
25           on weekends
- 26       • Unforeseen site conditions, including infrastructure conflicts with other entities,  
27           water in cable chambers, shale requiring increased depth due to soil conditions,

- 1 clearing duct bank blockages, new duct banks required for alternative routes, duct  
2 rebuilds, duct rerouting, contaminated soil, asbestos removal
- 3 • Additional scope transferred from other project (projects combined or  
4 consolidated, customer delays and changes in requirements)
  - 5 • Change in standards since original design
  - 6 • Additional costs required when working with legacy assets or systems such as box  
7 construction and paper-insulated lead-covered (“PILC”) due to complexity and  
8 safety considerations
  - 9 • Additional costs due to COVID-related work restrictions including extra vehicle and  
10 labour hour costs due to social distancing requirements (see Exhibit 1B, Tab 3,  
11 Schedule 3 at pages 9-11 for more details).
  - 12 • Additional costs due to inflationary pressures, including rising costs of materials as  
13 described in Exhibit 1B, Tab 3, Schedule 3 at pages 11-13 and as shown in Exhibit  
14 2B, Section D2 at page 14.

15

16 Tables 1 and 2 below summarize the completed projects from 2020 to 2023 with a value  
17 greater than \$1 million and where the cost variance between the initial design estimate  
18 and the final project cost was +30% or greater. For additional context, Table 3 provides  
19 the total value of the cost variances relative to the total value of the work program for  
20 each year from 2020 to 2023. The project costs shown in the tables below are for the full  
21 life of the individual projects completed each year and the costs span multiple years for  
22 both design and construction. Additionally, Tables 4 and 5 below summarize completed  
23 projects from 2020 to 2023 with a value greater than \$1 million and where the final  
24 project cost variance was underspent by 30% or greater.

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1 Together, the tables below demonstrate Toronto Hydro successfully managed and  
 2 executed its 2020-2023 distribution capital execution work program within very  
 3 reasonable margins of variance.

4

5 **Table 1: Distribution Capital Projects Greater than \$1 million with +30% Variance**

Year	# of Projects Completed	# Projects > \$1 million and variance of +30%	% Projects > \$1 million and variance of +30%
2020	274	7	2.6%
2021	286	9	3.1%
2022	286	7	2.4%
2023	314	4	1.3%
<b>2020-2023</b>	<b>1160</b>	<b>27</b>	<b>2.3%</b>

6

7 **Table 2: Distribution Capital Projects Greater than \$1 million with +30% Variance (\$**  
 8 **Millions)**

Year	\$ Value of Projects Completed (Estimate)	Total \$ Variances for Projects Greater than \$1 million with +30% Variance	\$ Variance for Projects Greater than \$1 million with +30% as a % of Total Value of Projects Completed
2020	\$195.5	\$8.3	4.2%
2021	\$206.6	\$8.4	4.1%
2022	\$238.2	\$9.2	3.9%
2023	\$193.0	\$4.1	2.1%
<b>2020-2023</b>	<b>\$833.2</b>	<b>\$29.9</b>	<b>3.6%</b>

1 **Table 3: Distribution Capital Execution Work Program Annual Variances (\$ Millions)**

Year	\$ Value of Projects Completed (Estimate)	\$ Value of Total Projects Actuals	Variance	% Variance
2020	\$195.5	\$212.1	\$16.6	8.5%
2021	\$206.6	\$208.8	\$2.3	1.1%
2022	\$238.2	\$234.2	-\$4.0	-1.7%
2023	\$193.0	\$200.3	\$7.3	3.8%
<b>2020-2023</b>	<b>\$833.2</b>	<b>\$855.3</b>	<b>\$22.1</b>	<b>2.7%</b>

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3 **Table 4: Distribution Capital Projects Greater than \$1 million with -30% Variance**

Year	# of Projects Completed	# Projects > \$1 million and variance of -30%	% Projects > \$1 million and variance of -30%
2020	274	6	2.2%
2021	286	7	2.1%
2022	286	4	2.1%
2023	314	5	1.9%
<b>2020-2023</b>	<b>1160</b>	<b>22</b>	<b>0.5%</b>

4

5 **Table 5: Distribution Capital Projects Greater than \$1 million with -30% Variance (\$**  
 6 **Millions)**

Year	\$ Value of Projects Completed (Estimate)	Total \$ Variances for Projects Greater than \$1 million with -30% Variance	\$ Variance for Projects Greater than \$1 million with -30% as a % of Total Value of Projects Completed
2020	\$195.5	-\$5.3	-2.7%
2021	\$206.6	-9.5	-2.6%
2022	\$238.2	-\$4.4	-2.2%
2023	\$193.0	-\$2.8	-2.8%
<b>2020-2023</b>	<b>\$833.2</b>	<b>-\$22.0</b>	<b>-0.6%</b>

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1 Toronto Hydro has provided all 27 project variance analysis (“PVA”) reports that are  
2 responsive to the requested information in consolidated format in Appendix A to this  
3 undertaking response.

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4

5 In reviewing the information above it is important to note that in the last rate application  
6 (EB-2018-0165) Toronto Hydro put forward a five-year capital plan for 2020-2024 that  
7 was based on a programmatic approach, and did not include project level details except  
8 for major capital projects like Copeland Phase 2. It is also key to note that the funding  
9 approved by the OEB to enable the execution of the five-year capital plan reflects an  
10 approved capital envelope, within which Toronto Hydro has the flexibility to implement  
11 its plan and to respond to changes as needed.<sup>1</sup> As such, the project-level variances  
12 summarized in the tables should not be interpreted as variances between OEB-approved  
13 and actual capital expenditures; that information is summarized in Exhibit 2B, Section E4  
14 and detailed in the programmatic evidence in Exhibit 2B, Section E5, E6, and E7. From a /C  
15 work execution perspective, the information above demonstrates that over the last four  
16 years (2020-2023), Toronto Hydro successfully managed the execution work challenges  
17 and considerations (discussed in Exhibit 1B, Tab 3, Schedule 3 at pages 2-15 and  
18 summarized above) and delivered over 1,100 projects within very reasonable margins of  
19 variance.

20

21 Toronto Hydro confirms that projects with a value greater than \$100,000 with variances  
22 of +/- plus or minus 20% and > \$100K, including the 49 projects listed above (27 – (+30%)  
23 variance and 22 – (-30%) variance), received senior management and executive approval  
24 of the cost variance throughout execution, in accordance with the utility’s change  
25 management and governance process detailed in Exhibit 2B, Section D1 at page 26, lines

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<sup>1</sup> EB-2018-0165, Decision and Order (December 19, 2019) at page 59.

- 1 3-9. This process is designed to identify, as projects are being designed and constructed,
  - 2 changes impacting project/program schedule, cost, and scope.
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1                                   **TECHNICAL CONFERENCE UNDERTAKING RESPONSES TO**  
 2   **ONTARIO ENERGY BOARD STAFF**

3

4   **UNDERTAKING NO. JT4.31:**

5   **Reference(s):               1B-Staff-12**

6

7   For the projects identified in Part D, to update the figure and the table in Part A for the  
 8   IRM scenario to illustrate the funding that would be available under the Capital Module.

9

10 **RESPONSE:**

11   The table below shows the funding associated with IRM plus Advanced Capital Module  
 12   (ACM) associated with the projects identified in 1B-Staff-12(d).

<b>\$ in million</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>	<b>Total</b>
<b>2025</b>	978	991	1,005	1,019	1,034	5,028
<b>2026</b>		9	9	9	9	38
<b>2027</b>			11	11	11	33
<b>2028</b>				9	9	17
<b>2029</b>					6	6
<b>Total</b>	978	1,001	1,026	1,048	1,069	5,122

13

14   The table in 1B-Staff-12(a) is updated below including an additional line for IRM + ACM.

<b>Revenue Requirement (\$ million, two decimal places)</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>	<b>Total</b>
2025-2029 Investment Plan	978	1,031	1,077	1,176	1,221	5,483
IRM	978	991	1,005	1,019	1,034	5,028
IRM + ACM	978	1,001	1,026	1,048	1,069	5,122
Current Custom IR Formula (CPCI)	978	1,015	1,047	1,127	1,154	5,321
Proposed CRCI	978	1,024	1,061	1,152	1,186	5,401

1 As the revenue impact of growth in billing determinants is given back to customers through  
2 the current Custom Price Cap Index (“CPCI”) rate formula and the proposed Custom  
3 Revenue Cap Index (“CRCI”) rate formula, Toronto Hydro did not include the impact of  
4 growth in the other scenarios. If growth assumptions consistent with the billing  
5 determinants presented in the 2025-2029 load forecast detailed in Exhibit 3, Tab 1,  
6 Schedule 1 were included in the IRM and IRM plus ACM scenarios, the total 2025-2029  
7 revenue in these scenarios would be approximately a \$4 million lower.

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**TECHNICAL CONFERENCE UNDERTAKING RESPONSES TO  
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**UNDERTAKING NO. JT5.10:**

**Reference(s):** Exhibit 9, Tab 2, Schedule 1 (Updated April 2, 2024)

With reference to the Continuity Schedule, Row 60, updated April 2, to explain the increase to the Externally Driven Capital Variance Accounts, and what changed since the original filings.

**RESPONSE:**

Table 1 below summarizes the Externally Driven Capital Variance Account 2023 and 2024 revenue requirement variances between the evidence presented on November 17, 2023 in Exhibit 9, Tab 1, Schedule 1, Table 7 and the updated evidence filed on April 2, 2024.

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**Table 1: Externally Driven Capital Variance Account 2023 and 2024 Revenue Requirement Variance (\$ Millions)**

Difference	2020	2021	2022	2023	2024	Total
Rate Base	-	-	-	(1.7)	(5.3)	<b>N/A</b>
Return on equity	-	-	-	0.1	(0.2)	<b>(0.1)</b>
Interest	-	-	-	0.0	(0.1)	<b>(0.1)</b>
Depreciation	-	-	-	3.3	1.9	<b>5.3</b>
PILs	-	-	-	1.0	0.7	<b>1.7</b>
<b>Revenue Requirement</b>	-	-	-	<b>4.4</b>	<b>2.3</b>	<b>6.7</b>
Carrying Charges	-	-	-	0.0	0.3	<b>0.3</b>
<b>Total</b>	-	-	-	<b>4.4</b>	<b>2.6</b>	<b>7.0</b>

1 The increase in the total balance is associated with higher amounts of derecognition than  
2 forecast in 2023, which affects all components of the revenue requirement. Derecognition  
3 expenses are overwhelmingly reactive, even in the near term, because there are practical  
4 challenges in forecasting a precise and comprehensive view of all assets that will have to  
5 be removed from the system, especially in the context of an externally-driven relocation  
6 project. The initial forecast for the Externally Driven Capital Variance Account (“EDCVA”)  
7 which was filed on November 17, 2023 was based on high-level assumptions derived from  
8 historical capital expenditures and derecognition expenses, whereas the updated balances  
9 filed on April 2, 2024 reflect actual derecognition impacts for 2023 based on major projects  
10 completed in 2023 and updated forecasts based on the carry-over impact of the 2023  
11 actuals. The projects include the Eglinton Crosstown LRT and Finch West LRT, which  
12 involved the relocation of large volumes of assets to complete construction activities for  
13 both light rail transit projects. Please see Toronto Hydro’s response to undertaking JT2.4  
14 for additional information on derecognition triggered by Externally Initiated Plant  
15 Relocation projects.

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2                                   **ONTARIO ENERGY BOARD STAFF**

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4   **UNDERTAKING NO. JT5.13:**

5   **Reference(s):           DVA Continuity Schedule**

6  
7   To file an updated version of the complete DVA Continuity Schedule.

8  
9   **RESPONSE:**

10   Please refer to Appendix A to this response for the updated DVA Continuity Schedule, which  
11   includes the Group 1 rate riders. Toronto Hydro’s derivation of Group 2 rate riders are  
12   provided as Appendix B. Below Toronto Hydro provides certain explanatory notes to assist  
13   with the review of the appendices.

14  
15   **Appendix A, Tab 2b – Innovation Fund**

16   The 2b Continuity Schedule tab of Appendix A does not show any balances for the proposed  
17   Innovation Fund Variance Account (“IFVA”) during the 2020-2024 rate period because the  
18   IFVA is a new Group 2 variance account that Toronto Hydro is proposing for the 2025-2029  
19   rate period.<sup>1</sup> The utility has no balances to record in the IFVA for the current rate period.

20  
21   **Appendix A, Tab 2b – Lost Revenue Adjustment Mechanism (“LRAM”) Variance Accounts**

22   The 2b Continuity Schedule tab of Appendix A only shows balances related to 2015-2019  
23   LRAM Variance Account (“LRAMVA”) in the years 2017-2021. The reason for this is that  
24   Toronto Hydro’s lost revenues in respect of conservation and demand management  
25   (“CDM”) initiatives have crystallized as of 2022, following the wind-down of the

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<sup>1</sup> Exhibit 1B, Tab 4, Schedule 2; Exhibit 9, Tab 1, Schedule 1, lines 16-26 at p. 41.

/C

1 Conservation First Framework (“CFF”)<sup>2</sup> and the OEB’s approval of Toronto Hydro’s proposal  
 2 to defer the clearance of the balance from the 2023 incentive rate proceeding to its  
 3 rebasing application.<sup>3</sup> In addition, the calculation of the 2020-2024 LRAMVA balances will  
 4 be subject to the resolution of the methodology question relating to the determination of  
 5 the LRAMVA threshold that the utility has raised in its evidence.<sup>4</sup>

6

7 **Appendix A, Tab 4 – Billing Determinants**

- 8 • Toronto Hydro has updated Section C under this tab with metered kWh values for  
 9 wholesale market participants (“WMP”), which had been inadvertently omitted from  
 10 an earlier version of Appendix A.
- 11 • Toronto Hydro notes that it relied on 2025 data from OEB Appendix 2-IB (“Customer,  
 12 Connections, Load Forecast and Revenues Data and Analysis”) updated on April 2, 2024,  
 13 to populate customer numbers under the Billing Determinants tab of Appendix A. Table  
 14 1 below reconciles customer figures between the two sources.

15

16 **Table 1: 2025 Customer Numbers Reconciliation**

Rate Class	OEB Appendix 2-IB (Update April 2, 2024)		DVA Continuity Schedule (Appendix A to JT5.13)	
	Customer Numbers	Devices/ Connections	Customer Numbers*	Devices/ Connections
Residential	618,693		618,693	
CSMUR	97,539		97,539	
GS < 50 kW	72,948		72,948	
GS 50-999 kW	9,941		9,941	
GS 1000-4999 kW	473		473	
Large User	44		44	
Street Lighting	n/a	172,781	1	n/a
Unmetered Scattered Load	n/a	12,873	791	n/a

17 \*The proportion of customers for the Residential, CSMUR and GS<50 Classes are relied on to allocate Account 1551.

<sup>2</sup> Exhibit 9, Tab 1, Schedule 1 at page 19.

<sup>3</sup> EB-2022-065, OEB Decision and Order (December 8, 2022) at p. 16-17.

<sup>4</sup> Exhibit 9, Tab 2, Schedule 3.

/C

1 **Appendix A, Tabs 6 and 6.1**

- 2 • Toronto Hydro notes that under tab 6 "Class A Consumption Data," on row 14 the year  
3 for account 1589 GA was last disposed remains as 2021. On row 17 of the same tab, the  
4 year account 1580 CBR Class B was last disposed has been updated to 2022, which  
5 previously incorrectly stated 2021.
- 6 • Upon further review of the 2024 DVA (Continuity Schedule) Workform utilized for 2025  
7 Group 1 rate calculations, enabling macros in the files results in the deletion of 2022  
8 Class A input data under the following tabs: "6. Class A Consumption Data" and "6.1a  
9 GA Allocation", which resulted in the 2022 balances deferred from the 2024 incentive  
10 proceeding to not appear properly. Toronto Hydro is refiling the continuity schedule  
11 without the macros as Appendix A to this undertaking response to address the issue.

12

13 **Appendix B – Reconciliation with Appendix A and Rate Smoothing**

14 The calculation of rate riders in Appendix B to this response differs from the total DVA  
15 balances in Appendix A due to rate smoothing. As Toronto Hydro arranged the timing of  
16 dispositions to smooth out the customer rate impacts over the 2025-2029 rate period, this  
17 created incremental carrying charges for those balances which are not being disposed in  
18 2025. For example, the utility proposes to dispose PILs and Tax Variance in 2025, hence no  
19 incremental carrying charges were calculated. However, Wireline Pole Attachments  
20 Revenue is proposed to be disposed in 2027, and therefore incremental carrying charges  
21 were calculated for years 2025 and 2026. In all cases Toronto Hydro calculated the  
22 incremental carrying charges using the OEB-prescribed DVA interest rate of 5.49% on the  
23 closing principal balance of each account as of December 31, 2023. The new Appendix C to  
24 this undertaking response provides a reconciliation of the DVA Continuity Schedule in  
25 Appendix A to the balances in the Rate Riders table in Appendix B.

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2                                   **ONTARIO ENERGY BOARD STAFF**

3  
4   **UNDERTAKING NO. JT5.14:**

5   **Reference(s):**           **GA Analysis Workform**

6  
7   To file an updated version of the GA Analysis Workform.

8  
9   **RESPONSE:**

10   Toronto Hydro has further updated the Global Adjustment (“GA”) Analysis Workform based  
11   on 2023 actuals and is filing it as Appendix A to this undertaking response. Below Toronto  
12   Hydro provides certain explanatory notes to assist with the review of the appendices.

13  
14   The updates to the GA Analysis workform are as follows:

- 15       1. Under tab GA 2023, for Note 5 (“Reconciling Items”) item 7 in row 86, the response  
16       to Principal Adjustment on DVA Continuity Schedule in cell I86 changed from ‘No’  
17       to ‘Yes’ and the explanation in cell D86 was updated accordingly.
- 18       2. Under tab Principal Adjustments, included \$2,237,906 as the third reversal in cell  
19       J82 and adjusted cell J81 the second reversal item on unbilled to actual revenue  
20       differences to \$405,528 from \$2,643,434, effectively splitting out the latter figure  
21       into two current year principal adjustments.

22   Toronto Hydro has updated the GA Workform to clarify the adjusted net change in principal  
23   balance in the GL line in cell C90 under the GA 2023 tab.

24  
25   On a quarterly basis, Toronto Hydro trues up/down its general ledger (“GL”) to ensure Class  
26   A GA costs to match its Class A GA revenues. However, when Toronto Hydro accrued GA

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1 revenue of approximately \$2.2 million in its GL in respect of a billing adjustment relating to  
2 a large customer in December 2023, the true up/down did not occur until 2024 due to  
3 timing. As a result, this amount was recognized under tab GA 2023 in cell C75 as a credit  
4 to the net change in principal balance in the GL line, resulting in the balance being  
5 approximately \$6.7 million. As the total expected GA variance in cell K60 of the same tab  
6 does not capture the impact of this accrual, it is classified as a reconciling item under Note,  
7 5 which resulted in Toronto Hydro having a reconciling item of approximately \$2.2 million  
8 presented within the GA 2023 tab.

9

10 The impact of this accrual was also captured in the current year principal adjustment  
11 amount, since Toronto Hydro trues up accounting accruals to actualized billing and  
12 calculates the principal adjustment as the difference between the accounting accrual and  
13 the actualized billing. Toronto Hydro's changes to cells J81 and J82 of the Principal  
14 Adjustments tab is to clarify the impact of this amount i.e. a principal adjustment of the  
15 same amount in the Principal Adjustments tab of the GA Analysis Workform.

16

17 This reconciliation difference will reverse for 2024. Toronto Hydro confirms that this was a  
18 one-time occurrence that has not impacted previous years.

/C