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July 9, 2019

Via RESS

Ms. Kirsten Walli
Board Secretary
Ontario Energy Board
PO Box 2319
2300 Yonge Street, 27th floor
Toronto, ON M4P 1E4

Dear Ms. Walli:

**Re: EB File No. EB-2018-0165, Toronto Hydro-Electric System Limited ("Toronto Hydro")
Custom Incentive Rate-setting ("Custom IR") Application for 2020-2024 Electricity Distribution
Rates and Charges – Undertaking Responses for Day 5 of the Oral Hearing and Request for
Corrections to the Oral Hearing Transcripts for Day 6**

Please find enclosed the responses to all the undertakings provided on Day 5 (July 5, 2019) of the Oral Hearing.

Further, Toronto Hydro has reviewed the transcript from Day 6 (July 8, 2019) and requests that the transcript be corrected for the following errors:

- Page 6, line 16 states: "fully buried cost" should state "fully burdened cost;"
- Page 11, line 5 states: "our on-the clock utilization rate" should state "around the clock utilization rate;"
- Page 22, line 5 states: "inclined" should state "in-kind;"
- Page 52, lines 18-19 state: "contact voltage is carrying costs" should state "contact voltage scanning costs;" and
- Page 153, line 13 states "Ms. Chaplin" should state "Ms. Chan."

Please contact me directly if you have any questions or concerns.

Respectfully,

A handwritten signature in black ink, appearing to read "D Coban", written over a horizontal line.

Daliana Coban

Manager, Regulatory Law
Toronto Hydro-Electric System Limited

cc: Lawrie Gluck, OEB Case Manager
Michael Miller, OEB Counsel
Parties of Record
Amanda Klein, Toronto Hydro
Andrew Sasso, Toronto Hydro
Charles Keizer, Torys LLP

ORAL HEARING UNDERTAKING RESPONSES TO
ENERGY PROBE RESEARCH FOUNDATION

UNDERTAKING NO. J5.1:

Reference(s): Exhibit 2B, Section 8.3

If possible, to confirm the number of vehicles to be replaced.

RESPONSE:

Toronto Hydro has reviewed the transcript and believes the undertaking to be twofold: (i) confirm the number of vehicles recommended for replacement in the 2017 LCA Report; and (ii) provide the number of vehicles Toronto Hydro is proposing to replace over the 2020-2024 period.

The Life Cycle Analysis Report (the "Report")¹ states that 270 vehicles are eligible to be replaced over the 2020-2024 period. This number is based on the assumption that 43 vehicles are replaced over the 2018 and 2019 period, as indicated in Figure 1 of the Report.² However, as shown in Tables 6 and 7, in Exhibit 2B, Section E8.3 at page 12, under the managed fleet option, Toronto Hydro's plan is to replace 262 vehicles over the 2020-2024 based on consideration of both lifecycle analysis and asset condition assessment.

¹ This report was submitted as part of 1B-SEC-3, Appendix E, page 9.

² In 2018, Toronto Hydro commissioned 24 new vehicles, with an additional 24 expected in 2019.

ORAL HEARING UNDERTAKING RESPONSES TO
OEB STAFF

UNDERTAKING NO. J5.2:

Reference(s): Exhibit K5.1, page 8

To provide an update to the chart at page 8 of Exhibit K5.1 with data to 2020.

RESPONSE:

Please see Appendix A for updated 2019 and 2020 information.

Toronto Hydro's resourcing strategy uses a mix of internal and external resources to complete work. The ability to rely on external resources provides the utility with the flexibility required to serve customers and successfully execute its plans in light of various operational challenges such as delays in hiring, peak demands, and emergency events.

Despite the decreases in headcount and compensation identified in this undertaking, the utility is committed to delivering the proposed programs in 2019 and 2020, and therefore requires the requested level of OM&A funding to complete the work. To the extent that Toronto Hydro doesn't have sufficient internal resources to deliver its operations and maintenance programs, the utility plans to rely on external service providers to get the work done. This approach is consistent with the recent historical experience. Specifically, in 2018, Toronto Hydro increased its reliance on external service providers (U-Staff-166.12). A major driver for this increase was the fact that staffing levels were lower than

- 1 forecast in 2018 due to delays in hiring certified and skilled trades and designated
- 2 technical professionals as a result of labour negotiations issues (U-VECC-87).

Appendix A
OEB Appendix 2-K
EMPLOYEE COSTS /COMPENSATION TABLE

	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2019 Bridge	2020 Test
Number of Employees (FTEs including Part-Time)						
Executive	6	6	7	5	5	5
Managerial	55	63	63	67	63	62
Non Management, Non-Union	495	521	549	564	607	603
Society	53	56	60	65	68	69
PWU	874	837	794	724	765	752
Total	1483	1484	1473	1425	1509	1491
Total Salary and Wages (including overtime and incentive pay)						
Executive	\$ 2,486,891	\$ 2,397,404	\$ 2,704,552	\$ 2,378,602	\$ 2,369,718	\$ 2,447,034
Managerial	\$ 9,805,887	\$ 11,755,405	\$ 12,267,327	\$ 13,340,028	\$ 13,109,022	\$ 13,272,778
Non Management, Non-Union	\$ 52,575,387	\$ 55,121,586	\$ 58,799,211	\$ 63,677,023	\$ 69,086,145	\$ 70,786,074
Society	\$ 6,273,163	\$ 6,387,993	\$ 7,345,852	\$ 7,857,253	\$ 8,730,321	\$ 9,026,473
PWU	\$ 87,126,813	\$ 84,638,474	\$ 81,994,788	\$ 79,475,009	\$ 81,449,851	\$ 81,534,574
Total	\$ 158,268,141	\$ 160,300,862	\$ 163,111,731	\$ 166,727,914	\$ 174,745,057	\$ 177,066,932
Total Benefits (Current + Accrued)						
Executive	\$ 598,384	\$ 566,562	\$ 632,406	\$ 539,960	\$ 639,810	\$ 706,901
Managerial	\$ 2,974,938	\$ 3,352,572	\$ 3,570,450	\$ 3,766,985	\$ 4,006,639	\$ 4,344,315
Non Management, Non-Union	\$ 16,711,133	\$ 17,268,194	\$ 18,482,452	\$ 18,694,608	\$ 22,685,770	\$ 24,854,001
Society	\$ 2,186,586	\$ 2,147,661	\$ 2,485,728	\$ 2,558,950	\$ 2,702,876	\$ 2,981,200
PWU	\$ 30,356,391	\$ 28,722,633	\$ 28,143,352	\$ 25,433,165	\$ 26,464,414	\$ 28,357,719
Total	\$ 52,827,432	\$ 52,057,622	\$ 53,314,387	\$ 50,993,668	\$ 56,499,509	\$ 61,244,135
Total Compensation (Salary, Wages, & Benefits)						
Executive	\$ 3,085,275	\$ 2,963,967	\$ 3,336,959	\$ 2,918,562	\$ 3,009,528	\$ 3,153,935
Managerial	\$ 12,780,825	\$ 15,107,977	\$ 15,837,777	\$ 17,107,012	\$ 17,115,660	\$ 17,617,093
Non Management, Non-Union	\$ 69,286,521	\$ 72,389,780	\$ 77,281,663	\$ 82,371,631	\$ 91,771,915	\$ 95,640,075
Society	\$ 8,459,748	\$ 8,535,654	\$ 9,831,580	\$ 10,416,204	\$ 11,433,197	\$ 12,007,672
PWU	\$ 117,483,204	\$ 113,361,107	\$ 110,138,140	\$ 104,908,173	\$ 107,914,265	\$ 109,892,293
Total	\$ 211,095,573	\$ 212,358,484	\$ 216,426,119	\$ 217,721,582	\$ 231,244,565	\$ 238,311,068

ORAL HEARING UNDERTAKING RESPONSES TO

OEB STAFF

UNDERTAKING NO. J5.3:

Reference(s):

To review the analysis and summarize the basis of the analysis.

RESPONSE:

Toronto Hydro has reviewed the transcript and believes the undertaking requests a summary of the cost benefit analysis undertaken for the third-party procurement provider ("3PP") in the Supply Chain Program (4A, Tab 2, Schedule 13).

The decision to outsource the acquisition and demand functions in the Supply Chain program was supported by a preliminary assessment to determine the feasibility and cost of outsourcing these functions. Through this preliminary assessment, Toronto Hydro determined that these services are widely available in the market and that there were potential savings associated with outsourcing this work.

In 2015, Toronto Hydro undertook a formal Request for Proposal (RFP) to issue a competitive bid to the market for these services.¹ The RFP produced results which were consistent with the preliminary assessment, and confirmed that the 3PP option would yield cost reductions and savings while maintaining service levels and increase operational flexibility (4A-CCC-38). More specifically, the cost comparison showed that a

¹ This was done in accordance with the utility's procurement process described in Exhibit 4A, Tab 3, Schedule 1.

1 fully contracted 3PP agent costs the company approximately \$100,000 per year all-in,
2 whereas an internal buyer costs approximately \$145,000 per year. In addition to the cost
3 savings identified, a key consideration in proceeding with the outsourced model was that
4 this model provides Toronto Hydro the necessary flexibility to scale its resources in this
5 area with relative expediency, consistent with the requirements of the capital work
6 program which can vary from year to year.

1 ORAL HEARING UNDERTAKING RESPONSES TO
2 POWER WORKERS UNION

3
4 UNDERTAKING NO. J5.4:

5 Reference(s): Exhibit K5.2

6
7 To confirm or not confirm the numbers in Exhibit K5.2.

8
9
10 RESPONSE:

11 Please see Appendix A for the updated information. The compensation table and
12 calculations in the PWU compendium have been updated in accordance with the most
13 recent information, which was provided in Toronto Hydro's response to U-SEC-102.

OEB Appendix 2-K
EMPLOYEE COSTS /COMPENSATION TABLE

	2015 Actuals	2016 Actuals	2017 Actuals	2018 Actuals	2019 Bridge	2020 Test	Compound Growth 2015 to 2020
Number of Employees (FTEs including Part-Time)							
EXECUTIVE	6	6	7	5	5	5	-3.58%
MANAGERIAL	55	63	63	67	63	62	2.42%
NON-MANAGEMENT, NON-UNION	433	467	487	498	575	571	5.69%
CONTRACT FOR A DEFINED TERM	62	54	62	66	32	32	-12.39%
SOCIETY	53	56	60	65	68	69	5.42%
PWU	874	837	794	724	779	778	-2.30%
TOTAL	1483	1484	1473	1425	1523	1517	0.45%
Total Salary and Wages (including overtime and incentive pay)							
EXECUTIVE	2,486,891	2,397,404	2,704,552	2,378,602	2,369,718	2,447,034	-0.32%
MANAGERIAL	9,805,887	11,755,405	12,267,327	13,340,028	13,109,022	13,272,778	6.24%
NON-MANAGEMENT, NON-UNION	48,506,203	52,019,203	55,078,497	59,303,319	67,065,064	68,706,809	7.21%
CONTRACT FOR A DEFINED TERM	4,069,184	3,102,383	3,720,714	4,373,705	2,021,081	2,079,265	-12.57%
SOCIETY	6,273,163	6,387,993	7,345,852	7,857,253	8,730,321	9,026,473	7.55%
PWU	87,126,813	84,638,474	81,994,788	79,475,009	82,701,776	83,908,086	-0.75%
TOTAL	158,268,141	160,300,862	163,111,731	166,727,914	175,996,982	179,440,444	2.54%
Total Benefits (Current + Accrued)							
EXECUTIVE	598,384	566,562	632,406	539,960	639,810	706,901	3.39%
MANAGERIAL	2,974,938	3,352,572	3,570,450	3,766,985	4,006,639	4,344,315	7.87%
NON-MANAGEMENT, NON-UNION	16,385,374	17,012,868	18,183,579	18,346,608	22,531,620	24,696,462	8.55%
CONTRACT FOR A DEFINED TERM	325,760	255,326	298,873	347,999	154,150	157,539	-13.52%
SOCIETY	2,186,586	2,147,661	2,485,728	2,558,950	2,702,876	2,981,200	6.40%
PWU	30,356,391	28,722,633	28,143,352	25,433,165	26,864,459	29,136,946	-0.82%
TOTAL	52,827,432	52,057,622	53,314,387	50,993,668	56,899,553	62,023,363	3.26%
Total Compensation (Salary, Wages, & Benefits)							
EXECUTIVE	3,085,275	2,963,967	3,336,959	2,918,562	3,009,528	3,153,935	0.44%
MANAGERIAL	12,780,825	15,107,977	15,837,777	17,107,012	17,115,660	17,617,093	6.63%
NON-MANAGEMENT, NON-UNION	64,891,577	69,032,071	73,262,076	77,649,927	89,596,684	93,403,271	7.56%
CONTRACT FOR A DEFINED TERM	4,394,944	3,357,709	4,019,587	4,721,704	2,175,231	2,236,804	-12.64%
SOCIETY	8,459,748	8,535,654	9,831,580	10,416,204	11,433,197	12,007,672	7.26%
PWU	117,483,204	113,361,107	110,138,140	104,908,173	109,566,235	113,045,032	-0.77%
TOTAL	211,095,573	212,358,484	216,426,119	217,721,582	232,896,535	241,463,807	2.72%
Total Compensation per FTE							
EXECUTIVE	514,213	493,994	476,708	583,712	601,906	630,787	4.17%
MANAGERIAL	232,379	239,809	251,393	255,329	271,677	284,147	4.10%
NON-MANAGEMENT, NON-UNION	149,865	147,820	150,435	155,924	155,820	163,578	1.77%
CONTRACT FOR A DEFINED TERM	70,886	62,180	64,832	71,541	67,976	69,900	-0.28%
SOCIETY	159,618	152,422	163,860	160,249	168,135	174,024	1.74%
PWU	134,420	135,437	138,713	144,901	140,650	145,302	1.57%
TOTAL	142,344	143,099	146,929	152,787	152,920	159,172	2.26%

1 ORAL HEARING UNDERTAKING RESPONSES TO
2 POWER WORKERS UNION
3

4 UNDERTAKING NO. J5.5:

5 Reference(s):
6

7 To confirm whether the 60 percent figure for internal costs on capital projects includes
8 materials cost.
9

10
11 RESPONSE:

12 The 60 percent figure relates to external (i.e. contractor) costs on capital projects,
13 provided in Appendix A to Toronto Hydro's response to interrogatory 2B-SEC-73. Toronto
14 Hydro confirms that this figure does not include the cost of materials issued to
15 contractors by Toronto Hydro.

ORAL HEARING UNDERTAKING RESPONSES TO
POWER WORKERS UNION

UNDERTAKING NO. J5.6:

Reference(s):

a) To advise whether it undertakes any benchmarking activities to determine the cost-effectiveness of its third-party service provider, costs in either the OM&A side of the business or the capital side of the business;

b) If there is, to provide it, subject to confidentiality restrictions.

RESPONSE:

Toronto Hydro undertakes a rigorous procurement process for all OM&A and Capital services contracted out as detailed in the Procurement Policy (Exhibit 4A, Tab 3, Schedule 1, Appendix A). Through the competitive procurement process, all bid submissions are assessed using a comprehensive evaluation matrix which is set prior to the Request for Proposal (RFP) or Request for Quote (RFQ) going out to market and includes a detailed cost analysis. The results of the assessment are benchmarked between participants to the procurement process and against any existing contracts to ensure a favourable acquisition cost and the successful respondent's ability to meet or exceed Toronto Hydro's quality, safety and environmental requirements.

Through the application of its procurement strategy, Toronto Hydro has successfully negotiated OM&A and capital contracts which provide an average annual rate increase over the 2015-2018 period that are lower than the average annual increases under the

1 Construction Labour Inflation and Municipal Infrastructure Construction Price benchmark
2 indices shown in Table 1 to the response to undertaking JTC4.30.2, which is reproduced
3 below for ease of reference.

4

5 Table 1: Average Escalation in Third-Party Contractor Unit Prices vs. Inflation

Average Annual Contractor Unit Price Escalation (2015-2018 Actuals)	Average Annual Increase in Construction Labour Inflation Index ¹	Average Annual Increase in Municipal Infrastructure Construction Price Index ²
1.52%	2.14%	3.21%

6

7 Since 2013, Toronto Hydro has also performed annual benchmarking of internal versus
8 external costs for capital construction projects through the Construction Efficiency metric
9 referenced in Exhibit 1B, Tab 2, Schedule 2. Please refer to Toronto Hydro's responses to
10 undertakings JTC4.18 and JX3.5 for detailed information about the methodology that
11 underpins this metric.

12

13 In addition, Toronto Hydro engaged UMS Group to conduct a unit cost benchmarking
14 study which compared average unit costs for major asset classes and maintenance
15 activities. As further detailed in Exhibit 1B, Tab 2, Schedule 1, Section 2.3.2, the results of
16 this study showed that Toronto Hydro is a better than average cost performer on 11 of
17 the 12 asset categories evaluated.

¹ 2014-2017 average growth, calculated using data from Statistics Canada, Table 18-10-0051-01 "Construction union wage rates index, monthly, inactive."

² 2014-2017 average growth, calculated using data from Statistics Canada, Table 18-10-0022-01, "Infrastructure construction price index, annual."

1 ORAL HEARING UNDERTAKING RESPONSES TO
2 SCHOOL ENERGY COALITION

3
4 UNDERTAKING NO. J5.7:

5 Reference(s):

6
7 To consider whether external capital cost numbers reflect dollars paid to external
8 contractors for their work, or the value of work executed by contractors, even if it
9 includes Toronto Hydro costs.

10
11
12 RESPONSE:

13 The external capital costs referenced in Appendix A of Toronto Hydro's response to
14 interrogatory 2B-SEC-73 only include amounts paid to contractors for the value of the
15 work performed; the referenced costs do not include any Toronto Hydro costs.

1 ORAL HEARING UNDERTAKING RESPONSES TO
2 SCHOOL ENERGY COALITION
3

4 UNDERTAKING NO. J5.8:

5 Reference(s):
6

7 To complete the table showing benefits 2020-2026.
8
9

10 RESPONSE:

11 Please see Appendix A for an updated table of the benefits for ERP Phase 1, originally filed
12 in the response to undertaking JTC3.5.

Appendix A

Table 1: Updated Table of ERP Phase 1 Benefits

	Expected Spending (\$M)											
Year	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2019 Forecast	2020 Plan	2021 Plan	2022 Plan	2023 Plan	2024 Plan	2025 Plan	2026 Plan
CAPEX	1.0	5.8	25.1	25.7	5.3	0.0	0.0	0.0	8.6	11.0	tbd	tbd
Hardware (equip only)	0.0	1.1	0.0	0.0	0.0	tbd	tbd	tbd	tbd	tbd	tbd	tbd
Software & Implementation	1.0	4.7	25.1	25.7	5.3	tbd	tbd	tbd	tbd	tbd	tbd	tbd
OPEX (Note 2)	0.0	0.1	0.1	1.8	5.0	4.7	tbd	tbd	tbd	tbd	tbd	tbd
TOTAL EXPENDITURE	1.0	5.9	25.2	27.4	10.3	4.7	tbd	tbd	tbd	tbd	tbd	tbd
	Expected Benefits (\$M)											
Year	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2019 Forecast	2020 Plan	2021 Plan	2022 Plan	2023 Plan	2024 Plan	2025 Plan	2026 Plan
Monetary	0.0	0.0	0.0	0.0	15.3	1.7	1.8	1.8	10.8	1.8	1.8	1.8
Cost Savings	0.0	0.0	0.0	0.0	0.8	1.6	1.7	1.7	1.7	1.7	1.7	1.7
Cost Avoidance	0.0	0.0	0.0	0.0	14.5	0.1	0.1	0.1	9.1	0.1	0.1	0.1
Process Improvements	0.0	0.0	0.0	0.0	1.9	2.4	2.9	2.9	2.9	2.9	2.9	2.9
TOTAL BENEFIT	0.0	0.0	0.0	0.0	17.1	4.1	4.6	4.6	13.7	4.6	4.6	4.6

Total may not add due to rounding.

Notes

- 1) ERP project Go-live was on Oct 1, 2018. HyperCare from Oct 1, 2018 to Apr 30, 2019.
- 2) Amounts 2015-2019 are Project Opex, while amounts 2019-2020 are On-going Opex.
- 3) Only Expected Benefits rows updated on Jul 6, 2019.

1 ORAL HEARING UNDERTAKING RESPONSES TO
2 DISTRIBUTED RESOURCE COALITION
3

4 UNDERTAKING NO. J5.9:

5 Reference(s):

6
7 To advise whether the Toronto Hydro fleet would qualify for fleet incentives.
8
9

10 RESPONSE:

11 The 2019 Federal Budget provides for financial incentives of up to \$5,000 for qualified
12 zero emission vehicles purchased (maximum of 10 per calendar year) or enhanced capital
13 cost allowance deductions. Closer to the time of procurement, and based on a number of
14 factors such as availability, cost and business needs, the utility may consider zero
15 emission vehicles. Therefore, at this time, Toronto Hydro does not have the information
16 to determine whether or not it qualifies for these incentives.

ORAL HEARING UNDERTAKING RESPONSES TO
DISTRIBUTED RESOURCE COALITION

UNDERTAKING NO. J5.10:

Reference(s):

To provide a breakdown of electric vehicles versus combustion engine vehicles in each category.

RESPONSE:

Table 1 below provide the requested information. Toronto Hydro notes that there are currently very few zero emission vehicle options available (outside of the car category) that would meet the business needs of the utility.

Table 1: Breakdown of Vehicle Type by Heavy and Light Duty Vehicles

	Fully Electric	Hybrid	Non-EV/Non-Hybrid
Heavy Duty	0	3	226
Light Duty	9	41	153

ORAL HEARING UNDERTAKING RESPONSES TO DISTRIBUTED RESOURCE COALITION

UNDERTAKING NO. J5.11:

Reference(s): Exhibit K4.8

To provide the breakdown on the age of EVs versus the age of light-duty, medium-duty, and heavy-duty non-EVs.

RESPONSE:

The table below provide the average age associated with EV and non-EV vehicles:

Vehicle Categories	Electric	Hybrid	Non-EV
Heavy Duty		8.7	7.6
CABLE TRUCK			9.5
CRANE TRUCK			9.4
CUBE VAN			6.1
DIGGER DERRICK			8.7
DOUBLE BUCKET			9.8
DUMP TRUCK			10.0
FULLSIZE VAN			6.9
LINE TRUCK			9.0
SINGLE BUCKET		8.7	5.7
SINGLE BUCKET-VAN MOUNT			9.2
Light Duty	1.8	9.2	5.9
CAR	1.8	8.1	
CARGO MINIVAN			4.3
PASSENGER MINIVAN			3.9
PICK-UP		9.1	7.6
SUV		9.7	4.5
Total	9.5	9.2	7.4

1 ORAL HEARING UNDERTAKING RESPONSES TO
2 DISTRIBUTED RESOURCE COALITION

3
4 UNDERTAKING NO. J5.12:

5 Reference(s): Exhibit K4.8

6
7 To determine the cost difference between the fuel costs for EVs versus non-EVs.

8
9
10 RESPONSE:

11 Toronto Hydro is unable to provide the requested comparison as EV fuel costs are not tracked
12 separately from non-EV vehicle fuel costs.