

Daliana Coban
Manager, Regulatory Law
Toronto Hydro-Electric System Limited
14 Carlton Street
Toronto, ON M5B 1K5

Telephone: 416.542.2627
Facsimile: 416.542.3024
regulatoryaffairs@torontohydro.com
www.torontohydro.com



May 19, 2015

via RESS e-filing – signed original to follow by courier

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

Dear Ms. Walli:

**Re: Toronto Hydro-Electric System Limited (“Toronto Hydro”)
Custom Incentive Rate-setting (“Custom IR”) Application for 2015-2019 Electricity
Distribution Rates and Charges – Technical Conference Undertaking Responses
OEB File No. EB-2014-0116**

Toronto Hydro writes to the Ontario Energy Board (“OEB”) in respect of the above-noted matter.

Please find enclosed Toronto Hydro’s responses to the May 6, 2015 Technical Conference Undertakings, and an updated response to interrogatory WR-Carriers-3 part (c).

Please do not hesitate to contact me if you have any questions.

Yours truly,

[original signed by]

Daliana Coban
Manager, Regulatory Law
Toronto Hydro-Electric System Limited
regulatoryaffairs@torontohydro.com

:encl.

:DC\AD\acc

cc: Crawford Smith
Maureen Helt
Martin Davies
Intervenors on Record for EB-2014-0116

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO CARRIERS

1 **UNDERTAKING NO. JTC3.1:**

2 **Reference(s):**

3

4 Provide the deductions made for discrete jobs from payroll costs, inventory direct
5 purchases and the support costs for 2012 to 2015.

6

7 **RESPONSE:**

8 Please see the tables below. Toronto Hydro notes that 2014 actuals have been presented
9 below; therefore, the 2014 figures do not match the bridge year forecast in the evidence.

2015 (Estimate)	Total Pole & Duct	Maintenance Expenses	Administration Costs		% of Total Costs allocated to Pole
			Stranded OPEX	Attributed to Pole	
Payroll Costs	1,901,886	781,177	1,120,709	416,476	21.9%
Vehicle Costs	150,545	112,854	37,691	-	0.0%
Inventory & Direct Purchases	4,626,996	4,604,927	22,069	5,486	0.1%
All other subcategories	263,196	-	263,196	65,421	24.9%
Total	6,942,623	5,498,958	1,443,665	487,383	7.0%

2014 (Actual)	Total Pole & Duct	Maintenance Expenses	Administration Costs		% of Total Costs allocated to Pole
			Stranded OPEX	Attributed to Pole	
Payroll Costs	2,271,819	1,313,485	958,334	332,835	14.7%
Vehicle Costs	223,549	190,997	32,553	-	0.0%
Inventory & Direct Purchases	2,834,961	2,826,170	8,791	2,143	0.1%
All other subcategories	230,496	-	230,496	56,199	24.4%
Total	5,560,826	4,330,651	1,230,174	391,177	7.0%

2013 (Actual)	Total Pole & Duct	Maintenance Expenses	Administration Costs		% of Total Costs allocated to Pole
			Stranded OPEX	Attributed to Pole	
Payroll Costs	2,238,469	1,334,301	904,168	323,888	14.5%
Vehicle Costs	224,801	196,686	28,115	-	0.0%
Inventory & Direct Purchases	1,699,615	1,677,546	22,069	5,078	0.3%
All other subcategories	242,902	-	242,902	55,886	23.0%
Total	4,405,787	3,208,533	1,197,254	384,851	8.7%

2012 (Actual)	Total Pole & Duct	Maintenance Expenses	Administration Costs		% of Total Costs allocated to Pole
			Stranded OPEX	Attributed to Pole	
Payroll Costs	2,541,195	1,728,162	813,033	273,170	10.7%
Vehicle Costs	271,573	275,094	(3,521)	-	0.0%
Inventory & Direct Purchases	4,034,166	4,017,175	16,991	3,571	0.1%
All other subcategories	235,251	-	235,251	49,447	21.0%
Total	7,082,185	6,020,430	1,061,755	326,188	4.6%

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO CARRIERS

1 **UNDERTAKING NO. JTC3.2:**

2 **Reference(s):**

3

4 Provide, for each year from 2011 to 2015, the number of applications that related solely
 5 to wireline attachments that will pay the wireline attachment rate and to provide the total
 6 number of applications that were received in each of the years.

7

8 **RESPONSE:**

	2011 (Actual)	2012 (Actual)	2013 (Actual)	2014 (Actual)	2015 (Estimate)
Number of permit applications that relate solely to wireline pole attachments	870	618	535	292	863
Number of permit applications that relate solely to non-wireline pole attachments	27	33	48	31	35
Number of permit applications that relate solely to underground attachments	198	207	157	109	116
Number of permit applications that relate solely to temporary pole attachments	140	129	124	160	138
Total Number of permit applications received	1,235	987	864	592	1,152

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO CARRIERS

1 **UNDERTAKING NO. JTC3.3:**

2 **Reference(s):**

3

4 For each of those categories of shared services costs identified, Finance, Legal,
5 Communications and Human Resources, to understand the amount that was allocated to
6 the department, the methodology that was used to determine that amount, and the data
7 inputs for the period from 2012 to 2015.

8

9 **RESPONSE:**

10 Toronto Hydro used the following methodology to determine the shared service costs that
11 were allocated to the Asset Attachment and Leases (“AA&L”) for the purpose of
12 calculating the wireline pole attachment rate:

Shared Services	Methodology
Finance, Legal/Regulatory and Communications	Reviewed time allotted by each department or division to support the AA&L department in 2013 and 2014 and applied the resulting rate to the 2015 estimated departmental or divisional expenses.
Human Resources	Divided the headcount numbers of the AA&L department by the total headcount of Toronto Hydro to calculate the rate applied for allocating Human Resource expenses to AA&L.

13 Please see Appendix A to this Schedule for additional information.

Appendix A to JTC 3.3 - Carriers

Per EB-2014-0116, Exhibit 4A, Tab 2	2012		2013		2014		2015(Estimate)		
	Total THESL (in \$ millions)	Allocated to AA&L	Total THESL (in \$ millions)	Allocated to AA&L	Total THESL (in \$ millions)	Allocated to AA&L	Total THESL (in \$ millions)	Allocated to AA&L	% of Total THESL
Finance (Sch. 15, Page 1, Table 1)	\$ 14.7	\$ 166,685	\$ 15.7	\$ 164,324	\$ 17.0	\$ 166,440	\$ 17.9	\$ 240,077	1.3%
Legal/Regulatory (Sch. 17, Page 1, Table 1 & Sch. 18, Page 1 Table 1)	\$ 12.1	\$ 472,676	\$ 12.9	\$ 408,445	\$ 12.9	\$ 640,938	\$ 14.2	\$ 562,298	4.0%
Communications (Sch. 13, Page 2, Table 2)	\$ 3.3	\$ 66,621	\$ 4.0	\$ 41,992	\$ 3.1	\$ 60,192	\$ 3.0	\$ 72,389	2.4%
Human Resources (Sch. 14, Page 1, Table 1)	\$ 13.2	\$ 54,885	\$ 15.3	\$ 198,264	\$ 15.3	\$ 117,272	\$ 16.1	\$ 152,765	0.9%
Total Shared Service Allocated to AA&L	\$ 43.3	\$ 760,867	\$ 47.9	\$ 813,025	\$ 48.3	\$ 984,842	\$ (A) 51.2	\$ 1,027,530	2.0%
Less: Shared Service Charged Directly to Jobs		\$ (345,688)		\$ (250,412)		\$ (146,106)		\$ (247,402)	
Stranded Shared Service		\$ 415,179		\$ 562,613		\$ 838,737		\$ 780,128	
OH Allocation		76.14%		78.20%		74.94%		76.40%	
Attacher Allocation		1.61		1.61		1.61		1.61	
Shared Service allocated to Overhead		\$ 196,346		\$ 273,269		\$ 390,403		\$ (B) 370,197	(B/A) 0.7%
# of Poles		170,360		170,360		170,360		170,360	
Shared Service Cost per pole		\$ 1.15		\$ 1.60		\$ 2.29		\$ 2.17	
# of Billed Wireline Attachments		88,457		87,604		89,285		95,243	
Shared Service Costs allocated to Wireline Attachers		\$ 101,950		\$ 140,523		\$ 204,609		\$ (C) 206,966	(C/A) 0.4%

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO CARRIERS

1 **UNDERTAKING NO. JTC3.4:**

2 **Reference(s):**

3

4 To provide the standard allocation factor for the particular costs associated with discrete
5 customer jobs.

6

7 **RESPONSE:**

8 The standard allocation factor is 20%.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO CARRIERS

1 **UNDERTAKING NO. JTC3.5:**

2 **Reference(s):**

3

4 To advise the total number of data points in PIP that relate to third party wireline
 5 attachments that pay the pole attachment rate; to advise the total number of data points
 6 collected in the PIP that relate to power-specific fixtures on a pole like the ones just
 7 discussed, primary insulator types; the number of data points in the PIP that relate to
 8 those hydro-specific fixtures; and in that group of third party attachments, the number of
 9 data inputs that relate to wireline attachers that pay the pole rate.

10

11 **RESPONSE:**

12 The total number of data points in the Pole Inspection Program (PIP) can be divided into
 13 two categories: (1) Third Party Portion; and (2) Hydro Portion as noted in the response to
 14 interrogatory WR-Carriers 14. The two categories can be further sub-divided as shown in
 15 the table below:

Category	Total Number of PIP Data Points
Third Party Portion	
Data Points Specific to 3 rd Party Wireline Attachments Paying the Pole Attachment Rate	437,880
Data Points Specific to Other Third Party Attachments	129,447
General Third Party Attachment Data Points	785,082
Hydro Portion	
Power-Specific Hydro Data Points	918,897
General Hydro Data Points	2,204,712

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO CARRIERS

1 **UNDERTAKING NO. JTC3.6:**

2 **Reference(s):**

3

4 To use best efforts to provide the number of poles being replaced before the end of their
5 useful life.

6

7 **RESPONSE:**

8 Approximately 490 of the poles to be replaced in 2015 will not have reached end of
9 useful life during the period covered by this application.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO CARRIERS

1 **UNDERTAKING NO. JTC3.7:**

2 **Reference(s):**

3

4 To identify and clarify why there is a discrepancy in WR-Carriers-3(c).

5

6 **RESPONSE:**

7 The total number of poles with attachers displayed in the original response to WR-
 8 Carriers-3(c) was presented on a cumulative basis, and as a result did not accurately
 9 represent the specific number of poles with exactly 0 through 8 communications attachers
 10 (i.e., the number of poles with 2 communications attachers included poles with 2 through
 11 8 attachers; similarly the number of poles with 3 communications attachers included
 12 poles with 3 through 8 attachers). This presentation resulted in the number of poles with
 13 0 communications attachers to be understated, as the total number of poles was derived
 14 from the total number of poles inspected less the total number of poles with attachers.
 15 However, the total number of Toronto Hydro poles with attachments, remains correct at
 16 55,734. A revised table is provided below. The response to WR-Carriers-3(c) will be
 17 updated accordingly.

Number of poles with:	2011	2012	2013	2014	2015 (est.)
0 communications attachers	8,939	47,014	68,882	79,600	79,677
1 communications attacher	3,701	17,406	28,447	33,329	33,341
2 communications attachers	2,265	9,344	13,833	16,234	16,244
3 communications attachers	671	2,758	3,775	4,418	4,422

**TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO
 CARRIERS**

Number of poles with:	2011	2012	2013	2014	2015 (est.)
4 communications attachers	212	831	1,086	1,215	1,217
5 communications attachers	74	268	333	368	368
6 communications attachers	19	77	97	103	103
7 communications attachers	10	35	38	39	39
8 communications attachers	0	0	0	0	0
TOTAL number of poles (sum of the above rows)	15,891	77,733	116,491	135,306	135,411

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO CARRIERS

1 **UNDERTAKING NO. JTC3.8:**

2 **Reference(s):**

3

4 To provide, using best efforts, the best evidence with respect to reconciling the total
 5 number of poles, specifically with respect to those poles that have third party
 6 attachments, communication attachments, wireline communication attachments, and
 7 wireline billable attachments.

8

9 **RESPONSE:**

10 Toronto Hydro’s best evidence comes from the Pole Inspection Program (PIP)
 11 completed in 2015. The findings of the PIP are that 55,734 poles have third party
 12 attachments [WR-Carriers 4(g)], and that 45,552 of the 55,734 poles have wireline
 13 communications attachments. Please see the table below for clarification regarding other
 14 references made in the interrogatory responses.

Type	IR Reference	Number of Poles	Description
Third Party Attachments	WR-Carriers-4, Page 2	46,405	This figure is based on the PIP as of March 2014 . It was used to calculate the average number of attachers per pole when the evidence was first developed.
Third Party Attachments	WR-Carriers-3, Page 2; WR-Carriers-4, Page 5	55,734	This figure is based on the PIP as of 2015 . It was used to respond to the noted interrogatories.

**TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO
 CARRIERS**

Type	IR Reference	Number of Poles	Description
Wireline Communication Attachments	WR-Carriers-5, Page 2	47,279	This figure is based on data related to different poles heights (as noted in WR-Carriers-5) retrieved from utility's Geographic Information System.
Billable Wireline Communication Attachments	WR-Carriers-18, Page 3	58,050	This figure is not based on PIP data. It was derived by dividing the estimated number of billable attachments (as noted in WR-Carriers-18) by the 1.61 average of number of attachers per pole.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO CARRIERS

1 **UNDERTAKING NO. JTC3.9:**

2 **Reference(s):**

3

4 Confirm whether or not there are any Toronto Hydro attachments included in the
5 calculation inputs.

6

7 **RESPONSE:**

8 Toronto Hydro confirms that there are no Toronto Hydro attachments included in the
9 calculation inputs.

**TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO
 ENERGY PROBE RESEARCH FOUNDATION**

1 **UNDERTAKING NO. JTC3.10:**

2 **Reference(s):**

3

4 To confirm the key assumption numbers in the THESL base case column in Exhibit
 5 TCK3.1.

6

7 **RESPONSE:**

8 Toronto Hydro reviewed Exhibit TCK3.1 (THESL base case column) and determined
 9 that it should be updated as follows:

Key Assumptions	THESL Base Case Exhibit 8, Tab 2, Schedule 1, Appendix B* Equal Allocation (Energy Probe Exhibit)	Comments
Attachers/Pole (excl THESL)	1.61	Confirmed
Number of poles with Attachments	93,461 55,734	Interrogatory Response WR- Carriers-4(g).
Number of "Wireline" Poles	58,050 45,552	Undertaking Response JTC 3.08.
Total Number of Poles	135,936	Confirmed

**TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO
 ENERGY PROBE RESEARCH FOUNDATION**

1 **UNDERTAKING NO. JTC3.11:**

2 **Reference(s):**

3

4 To provide alternate scenarios with attachments per pole of 2.01 and 2.51, excluding
 5 Toronto Hydro power.

6

7 **RESPONSE:**

Item	Type of cost	April 24th Update @ 1.61 Attachers	Scenario @ 2.01 Attachers	Scenario @ 2.51 Attachers	Explanation
DIRECT COST					
A	Administration Costs	\$ 5.03	\$ 4.03	\$ 3.23	2015 estimate
B	Loss in Productivity	\$ 5.72	\$ 4.58	\$ 3.67	TH estimate 2015 = \$9.19 and divided between 1.61/2.01/2.51 pole attachers
C	Total Direct Costs	\$ 10.75	\$ 8.61	\$ 6.89	A + B
INDIRECT COST					
D	Net Embedded Cost per pole	\$ 1,922.08	\$ 1,633.77	\$ 1,633.77	2015 MIFRS Forecast Data
E	Depreciation Expense	\$ 58.64	\$ 49.85	\$ 49.85	2015 MIFRS Forecast Data
F	Pole Maintenance Expense	\$ 5.46	\$ 5.46	\$ 5.46	2015 Forecast Data
G	Capital Carrying Cost	\$ 118.98	\$ 101.13	\$ 101.13	Pre-tax weighted average cost of capital 6.19% applied to net embedded cost per pole (D)
H	Total Indirect Costs per Pole	\$ 183.08	\$ 156.44	\$ 156.44	E+F+G
I	Allocation Factor	30.4%	25.8%	21.8%	Allocation based on 1.61/2.01/2.51 attachers
J	Indirect Costs Allocated	\$ 55.74	\$ 40.42	\$ 34.09	H x I
K	Estimated Annual Cost	\$ 66.49	\$ 49.03	\$ 40.98	Total Direct + Indirect Costs (C + J)

Note: For Items D and E in the scenarios, Toronto Hydro applied the 85% factor proposed by the Carriers to exclude Toronto Hydro power-specific fixtures.

RESPONSES TO THE CARRIERS' INTERROGATORIES

1 **RESPONSE:**

2 a) The companies that have one or more wireline attachments in the communication
 3 space on Toronto Hydro poles are Allstream, Beanfield, Bell, Cogeco, Rogers, Telus,
 4 Videotron, Hydro One, Toronto Police Services, and Toronto Hydro.

5
 6 b) The companies that have non-wireline communication attachments on Toronto Hydro
 7 poles are Cogeco, Rogers, Toronto Police Services, Toronto Transit Commission,
 8 City of Toronto, Enbridge, and Toronto Hydro Energy Services, Inc.

9
 10 c) The number of poles in use is based on the number of attachers identified through
 11 Toronto Hydro's pole inspection audit. The table below provides number of poles
 12 currently in use or available for use for each of the years as of calendar year-end, for
 13 2011-2014. Because the Pole Inspection Program was not completed until 2014, the
 14 2011, 2012, and 2013 figures below represent the cumulative data available at each of
 15 the respective year-ends. Toronto Hydro is unable to provide the 2010 data as the
 16 pole inspection audit commenced in 2011.

Number of poles with:	2011	2012	2013	2014	2015 (est.)
0 communications attachers	8,939	47,014	68,882	79,600	79,677
1 communications attacher	3,701	17,406	28,447	33,329	33,341
2 communications attachers	2,265	9,344	13,833	16,234	16,244
3 communications attachers	671	2,758	3,775	4,418	4,422

} /C

RESPONSES TO THE CARRIERS' INTERROGATORIES

Number of poles with:	2011	2012	2013	2014	2015 (est.)
4 communications attachers	212	831	1,086	1,215	1,217
5 communications attachers	74	268	333	368	368
6 communications attachers	19	77	97	103	103
7 communications attachers	10	35	38	39	39
8 communications attachers	0	0	0	0	0
TOTAL number of poles (sum of the above rows)	15,891	77,733	116,491	135,306	135,411

} /C