Daliana Coban
Lead Regulatory Counsel
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

March 5, 2015

via RESS – 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 Application for 2015-2019 Electricity Distribution Rates and Charges – Undertaking Responses
OEB File No. EB-2014-0116

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

Further to my letter dated March 3, 2015, please find enclosed the responses to Oral Hearing Undertakings J9.1 and J9.3 to J9.6. Responses for J8.11 and J9.2 will be submitted tomorrow.

Toronto Hydro's response to the Letters of Comments received in this Application is also enclosed.

Please contact me if you have any questions.

Yours truly,

[original signed by]

Daliana Coban
Lead Regulatory Counsel
Toronto Hydro-Electric System Limited
regulatoryaffairs@torontohydro.com

encl.:DC\acc

cc: Charles Keizer, Torys LLP
Crawford Smith, Torys LLP
Amanda Klein, Toronto Hydro
Intervenors of Record for EB-2014-0116

ORAL HEARING UNDERTAKING RESPONSE TO SCHOOL ENERGY COALITION

UNDERTAKING NO. J9.1:

Reference(s):

To advise whether or not Toronto Hydro used municipal accounting in any period prior to the benchmark.

RESPONSE:

Based on available records, Toronto Hydro can confirm that Generally Accepted Accounting Principles ("GAAP") accounting was used from 1998 onward. Toronto Hydro's best available information indicates that GAAP was also in use in the period from 1988 to 1998.

ORAL HEARING UNDERTAKING RESPONSE TO SCHOOL ENERGY COALITION

UNDERTAKING NO. J9.3:

Reference(s):

To confirm whether there is any model showing what happens to Rates if capital spending is less than what is proposed.

RESPONSE:

This undertaking relates to an exchange between Mr. Shepherd and Ms. Klein regarding Toronto Hydro's position, articulated in various places in evidence, that deferring system renewal spending would be more costly for ratepayers in the long-term.[1]

Ms. Klein confirmed that Toronto Hydro has not modeled long-term rate impacts.[2] However, Mr. Shepherd then asked a more general question about the utility's evidentiary basis for the statement that rates would be higher if the capital spend was reduced.[3]

In response to this broader question, the following paragraphs summarize the evidentiary basis for the position that deferring system renewal investments will result in higher costs (i.e., lower value-for-money) for ratepayers over the long-term. The response also discusses how the costs and benefits of deferral are quantified in the DSP business cases.

Toronto Hydro's approach to asset renewal avoids the extra costs incurred when an asset is replaced reactively as opposed to a planned replacement.[4] Mr. Walker described these

[1] Exhibit 2B, Section E2
[2] EB-2014-0116, Transcript Volume 9 (March 3, 2015), page 79, lines 22-23.
[3] EB-2014-0116, Transcript Volume 9 (March 3, 2015), page 82, lines 14-17.
[4] Exhibit 2B, Section E2.1.

ORAL HEARING UNDERTAKING RESPONSE TO SCHOOL ENERGY COALITION

extra costs during the Oral Hearing by providing an example of an underground cable failure that Toronto Hydro had to address reactively.[5] In this scenario, the following reactive activities would generally occur:

- Emergency response to isolate the failure and restore as much power as possible
- Reactive response to locate the fault, isolate it and further restore power
- Civil crews to excavate around the failed portion of the cable
- Repair crews to splice out the failed portion of the cable
- Civil crews to back-fill the excavation
- Switching crew to re-energize the repaired portion of cable and return service to normal

This example confirms Toronto Hydro's view that operating assets beyond their expected useful lives and replacing them reactively when they fail will increase the cost of operating the distribution system.[7] Of course, each time a cable fails, the customers also bear the costs and impacts of the power interruption until repairs are completed.

The majority of the assets targeted for replacement under the System Renewal category in the 2015-2019 period are currently operating beyond their expected Useful Life, as well as their Economic End-of-Life.[8] Replacing these assets proactively rather than waiting for them to fail reduces reactive replacement costs and the associated customer outages. Consequently, addressing Toronto Hydro's large and growing backlog of end-of-life assets in a planned and proactive manner will reduce the overall cost of operating the distribution system in the long-term relative to a reactive approach.

[5] EB-2014-0116, Transcript Volume 6 (February 25, 2015), pages 67-68
[7] Toronto Hydro accounts for the extra costs in the risk cost curves that are used to determine the optimal intervention times (i.e., the Economic End-of-Life) for individual assets.
[8] Undertaking Response TCJ1.7.

ORAL HEARING UNDERTAKING RESPONSE TO SCHOOL ENERGY COALITION

Business Case Evaluations

The Avoided Risk Cost approach which underlies the Business Case Evaluation (BCE)[9] of the System Renewal and System Service programs[10] supports Toronto Hydro's value-for-money proposition. It does so empirically by establishing risk cost curves for individual assets based on population-based failure rates (and asset health indices where available) and by assessing the present value of the investments' costs and benefits.

By way of illustration, the Underground Circuit Renewal program (E6.1), which addresses Mr. Walker's cable fault example above, includes BCE results (Table 7) that show an Avoided Risk Cost for the first year of the program of $102.93 million. The positive result means that the Net Cost[11] of doing the work is lowest in 2015, making it the optimal year to execute the projects in terms of mitigating the extra costs that would otherwise be associated with reactive replacement and customer outages.

The consistently positive BCE results in the DSP demonstrate that deferring the planned investments that form the proposed capital expenditure plan will likely result in greater costs for Toronto Hydro customers over the long-term. While Toronto Hydro believes it is ideal to clear the backlog of end-of-life assets – and thus maximize value-for-money – as fast as possible, the utility has proposed a "paced" approach that balances these system renewal objectives with considerations for bill impacts and execution constraints.

[9] Exhibit 2B, D3.3
[10] With the exception of those investment that target system capacity issues.
[11] The Net Cost includes as costs both the sacrificed value of replacing any assets before they reach their expected useful lives, and the risk costs, which include reactive costs and customer outage costs, associated with allowing any assets to operate beyond useful life. The Net Cost also includes, as benefits, the operational savings realized by replacing the assets identified for replacement in an area as a group. A negative Avoided Risk Cost indicates that a project should be deferred or modified, while a positive Avoided Risk Cost indicates that proceeding with the project as planned will maximize value-for-money.

ORAL HEARING UNDERTAKING RESPONSE TO SCHOOL ENERGY COALITION

UNDERTAKING NO. J9.4:

Reference(s):

To provide the date when the Board of Directors approved the filing.

RESPONSE:

While Toronto Hydro's management discussed this application with the Toronto Hydro Board of Directors, the filing of the application was approved by management, not by the Board of Directors. Specifically, the requirements of the RRFE, the decision to file a custom IR application, the capital plan and anticipated rate impacts were all discussed with the Board of Directors prior to July 31, 2014 when the application was filed. The Board of Directors has approved the business plan that uses the same forecasts and assumptions as the application.

ORAL HEARING UNDERTAKING RESPONSE TO ENERGY PROBE RESEARCH FOUNDATION

UNDERTAKING NO. J9.5:

Reference(s):

To update Exhibit K3.3 and to identify any issues found.

RESPONSE:

Toronto Hydro's updates to Exhibit K3.3 are embedded in Appendix to this undertaking response. Red text indicates cells that have been updated by Toronto Hydro in relation this undertaking and blue text indicates cells that have changed as a result of the formulas Energy Probe has coded into its spreadsheets.

For Tab 1, "J1.2 EP-49 02032015", Toronto Hydro undertook to estimate the adjustments to Operating Revenues (Row 4) and Total Revenue (Row 6) that are necessary to make those values for 2012 to 2014 roughly comparable to the values for 2015 to 2019. Those changes are carried through to Rows 19 and 21 as well.

In Tab 2, "CIR Formula Comparisons", Toronto Hydro undertook to identify any discrepancies between Dr. Kaufmann's proposal at page 57 of the Pacific Economics Group (PEG) report and Energy Probe's replication of Dr. Kaufmann's proposal, aside from the proposal to spread Toronto Hydro's proposed capital expenditure plan over eight years as opposed to five years.

The discrepancy Toronto Hydro has identified is due to Energy Probe's implementation of PEG's proposal to extend the stretch factor to capital costs. The corrected formula and values now appear in rows 18, 44 and 71.

ORAL HEARING UNDERTAKING RESPONSE TO ENERGY PROBE RESEARCH FOUNDATION

For the benefit of all parties, Toronto Hydro has identified a further source of discrepancy that relates to corrections Toronto Hydro had previously proposed, and that were subsequently accepted, to Energy Probe's implementation of Toronto Hydro's proposed rate framework also contained in Tab 2. These correction were not carried through to the implementation of the PEG proposal. Specifically, those corrections relate to:

- The estimated capital-related revenue requirement in Energy Probe's Scenarios A and B;
- The formula used to calculate S_{cap} in all three cases; and
- The formula used to calculate revenue requirement, which had incorrectly added $1 million incrementally in each of the years 2016 to 2019, in all three cases.

Finally, Toronto Hydro notes that it disagrees with other elements of PEG's and Energy Probe's proposals/scenarios, but has made no modifications in respect of these disagreements because they do not constitute a discrepancy as noted in this response.

Energy Probe TCQ 49 REVISED March 2, 2015

Consolidated Financial Summary 2011 - 2019- Updated with THESL Corrections												
Toronto Hydro Submission	Approved	Actual	Actual	Estimate	Proposed		Proposed	Proposed	Proposed	Proposed	**Comments**	**References**
	2011	2012	2013	2014	2015		2016	2017	2018	2019		2015-2019: E1B_T02_S03
Operating Revenues	522	536	550.1	570.5	655		687.5	747.4	800.5	843.8	*See Cover Letter Para 11*	2012-2014: Toronto Hydro RRR
Other Revenues	26	19.4	25.4	25.7	46.1		46.8	47.4	48	48.7		Filings and Supporting Materials
Total Revenue	548	555.4	575.5	596.2	701.1		734.3	794.8	848.5	892.5		
Total OM&A Expense	238.6	215.8*	246.4	246.6	265.1		273.3	277.1	281	284.9	*See Cover Letter Para 8*	Past/Test Year data: E4A_T01_S01; *2012 amount is net of 27.7 restructuring costs
Rate Base	2298.2	2534.3	2658.4	2775.6	3247.6		3626.6	3985	4206.7	4422		Information underlying E1B_T02_S03
Capital Factor												
Interest Expense					*80.20*		*89.54*	*98.38*	*103.86*	*109.17*		
Depreciation & Amortization					*206.50*		*221.64*	*248.33*	*266.78*	*287.35*		
Return on Capital (ROE)					*120.90*		*134.97*	*148.31*	*156.56*	*164.57*		
PILs/Income Taxes					*24.1*		*14.75*	*22.60*	*40.31*	*46.52*		
Subtotal Capital-Related RR					*431.60*		*460.9*	*517.60*	*567.50*	*607.60*		
Cn					-		*4.47*	*8.25*	*6.68*	*5.01*		E1B_T02_S03
Scap					-		*0.67*	*0.69*	*0.71*	*0.72*		
PCI					-		*4.94*	*8.68*	*7.09*	*5.41*	**PCI=I-X+Cn-Scap*(I-X)**	
Total Gross Revenue Requirement	548	555.4	575.5	596.2	701.1		734.3	794.7	848.5	892.5		
Other Revenues	-26	-19.4	-25.4	-25.7	-46.1		-46.8	-47.4	-48	-48.7		
RATES REVENUE REQUIREMENT	**522**	**536**	**550.1**	**570.5**	**655**		**687.5**	**747.4**	**800.5**	**843.8**	*See Cover Letter Para 9, 10*	J
Total Debt	1378.9	1520.58	1595.04	1665.36	1948.56		2175.96	2391	2524.02	2653.2	60.00%	4.11%
Common Equity	919.3	1013.72	1063.36	1110.24	1299.04		1450.64	1594	1682.68	1768.8	40.00%	9.30%
Total Rate Base	2298.2	2534.3	2658.4	2775.6	3247.6		3626.6	3985	4206.7	4422	100.00%	6.19% Information underlying E1B_T02_S03
CAPEX and In Service Asset Additions												
Capital Expenditures												
Total System Access Capital	58.3	53.2	86.6	76	86.1		93.5	100.9	90.4	85.5		
Total System Renewal Capital	219.3	157.2	231.1	286.4	251.7		235	246.3	260.1	265.5		
Total System Service Capital	75.6	38.4	83.7	101.3	76.5		69.6	62.5	49.5	73.9		E3A-T06_S02, App 2-AA
Total General Plant Capital	67.7	29.3	33.8	109.5	104.6		99.4	28.9	32.1	27.9		
Other	24.6	9.9	10.5	13.3	10.3		21.2	28.6	37.9	49.4		
Total Distribution Capital	**445.5**	**288.0**	**445.7**	**585.9**	**531.1**		**518.7**	**467.4**	**470.0**	**502.2**		
In-Service Asset Additions												
Total System Access Capital												
Total System Renewal Capital												
Total System Service Capital												
Total General Plant Capital												
Other												
TOTAL ISAs	439.1*	**209.4**	**381.3**	**470.6**	**539.7**		**671.6**	505.7	441	529.9		Interrogatory 2B-SEC-25. *2011 ISA reflects the actual amount.
Variation											*See Cover Letter Para 12*	
OM&A												
Description	**Bd Approv**	**Actual**	**Actual**	**Estimate**	**Test Base**		**Proposed**	**Proposed**	**Proposed**	**Proposed**	**Categories/Taxonomy**	
	2011	**2012**	**2013**	**2014**	**2015**		**2016**	**2017**	**2018**	**2019**		
Operations	59.7	55.9	59.5	58.5	70.3							
Maintenance	56.1	54.8	66.8	59.3	61.2							
Billing and Collecting	40.6	36.0	35.2	37.9	41.5							
Community Relations	2.9	2.9	2.9	2.7	2.7							
Administrative and General	72.6	67.8	75.0	81.2	86.5							
Taxes Other Than Income Taxes	5.9	-2.3	6.4	6.5	6.5							
Donations	0.7	0.7	0.7	0.7	0.8							
TOTAL	**238.6**	**215.8**	**246.4**	**246.6**	**269.5**		**273.3**	**277.1**	**281**	**284.9**	*See Cover Letter Para 8*	Past/Test Year data: E4A_T01_S01;
Variation: Restructuring Costs		27.7										

Energy Probe Exhibit K3.3 REVISED March 2, 2015				Comparison THESL and PEG CUSTOM PCI FORMULAS			Based on PEG Report Table 8 Adjusted to 5yr CIR Plan						
	THESL Formula			As Filed	Corrected per THESL			PEG Formula			Corrected per Dr. Kauffman J3.3, THESL J9.5		
Key Assumptions							**Key Assumptions**						
X Stretch factor	-0.003						X Stretch factor	-0.006					
Cn Stretch factor	0						Cn Stretch factor	-0.004					
Billing Determinant Adjustment	0						Billing Determinant Adjustment	-0.015					
Growth	0						Growth	0					
PCI=(I-X)+Cn-Scap*(I-X)		**PCI Formula Calculation**					**PCI=(I-X)+Cn-Scap*(I-X)**		**PCI Formula Calculation**				
THESL Formulation	2015 Base Y	**2016**	**2017**	**2018**	**2019**	**TOTAL**	**PEG Formulation**	2015 Base Y	**2016**	**2017**	**2018**	**2019**	**TOTAL**
Input Parameters							Input Parameters						
Inflation	N/A	0.017	0.017	0.017	0.017		Inflation	N/A	0.017	0.017	0.017	0.017	
X=Stretch Factor	N/A	-0.003	-0.003	-0.003	-0.003		X=Stretch Factor	N/A	-0.006	-0.006	-0.006	-0.006	
I-X	**0**	**0.014**	**0.014**	**0.014**	**0.014**		**I-X**	**0**	**0.011**	**0.011**	**0.011**	**0.011**	
Base year RR	**655.0**						Base year RR	**655.0**					
Capital-related RR 1BT2S3Table4	431.6	460.9	517.6	567.5	607.6		Capital-related RR 1BT2S3Table4	431.6	460.9	517.6	567.5	607.5	
Cn	0	0.0447	0.0825	0.0668	0.0501		Cn	0	0.0447	0.0841	0.0696	0.0532	
Stretch factor	0	0.0000	0.0000	0.0000	0.0000		Stretch factor	0	-0.0041	-0.0043	-0.0045	-0.0047	
Growth	0	0.000	0.000	0.000	0.000		Billing Determinant Redn	0	-0.01500	-0.01500	-0.01500	-0.01500	
Adjusted Cn		**0.0447**	**0.0825**	**0.0668**	**0.0501**		**Adjusted Cn**		**0.0256**	**0.0648**	**0.0501**	**0.0335**	
Scap Factor[% RR(prior yr)]	0	0.6710	0.6930	0.7090	0.7200		Scap Factor[% RR(prior year)]	0	0.6838	0.7220	0.7552	0.7840	
PCI=[(I-X)+Cn-(Scap*(I-X)]	0	0.0493388	0.0867927	0.0708771	0.05405		**PCI=[(I-X)+Cn-Scap*(I-X)**	0	0.0291082	0.0635104	0.048238	0.0311979	
PCI Escalator %	N/A	4.93	8.68	7.09	5.41		**PCI Escalator %**	N/A	2.91	6.35	4.82	3.12	
Revenue Requirement $ M	**655.00**	**687.32**	**746.97**	**799.91**	**843.15**	**3732.35**	**Revenue Requirement $ M**	**655.00**	**674.07**	**716.88**	**751.46**	**774.90**	**3572.30**
Rate (RR) Increase	14.81%	4.93%	8.68%	7.09%	5.41%	**8.18%**	Rate (RR) Increase	14.81%	2.91%	6.35%	4.82%	3.12%	**6.40%**

*Variance from PEG: PEG's proposal is to add back "Scap*X"

*THESL Correction Carried Forward: Cells corrected to reflect Toronto Hydro's proposed Scap formula.

*THESL Correction Carried Forward: Revenue Requirement calculation incorrectly added $1M to each cell.

Energy Probe SCENARIO A							~20% CAPEX annual Reduction						
	THESL Formula							PEG Formula					
Key Assumptions							**Key Assumptions**						
X Stretch factor	-0.003						X Stretch factor	-0.006					
Cn Stretch factor	0						Cn Stretch factor	-0.004					
Billing Determinant Adjustment	0						Billing Determinant Adjustment	-0.015					
Growth*	0						Growth	0					
PCI=(I-X)+Cn-Scap*(I-X)		**PCI Formula Calculation**					**PCI=(I-X)+Cn-Scap*(I-X)**		**PCI Formula Calculation**				
THESL Formulation	*2015 Base Y*	**2016**	**2017**	**2018**	**2019**	**TOTAL**	**PEG Formulation**	*2015 Base Y*	**2016**	**2017**	**2018**	**2019**	**TOTAL**
Input Parameters							Input Parameters						
Inflation	*N/A*	0.017	0.017	0.017	0.017		Inflation	*N/A*	0.017	0.017	0.017	0.017	
X=Stretch Factor	*N/A*	-0.003	-0.003	-0.003	-0.003		X=Stretch Factor	*N/A*	-0.006	-0.006	-0.006	-0.006	
I-X	***0***	**0.014**	**0.014**	**0.014**	**0.014**		**I-X**	***0***	**0.011**	**0.011**	**0.011**	**0.011**	
Base year RR	***644.2***						Base year RR	***644.2***					
Capital-related RR	***420.8***	**443.4**	**487.1**	**524.8**	**553.4**		**Capital-related RR**	***420.8***	**443.4**	**487.1**	**524.8**	**553.4**	
Cn	*0*	0.0351	0.0652	0.0526	0.0378		Cn	*0*	0.0351	0.0665	0.0546	0.0399	
Stretch factor	*0*	0.0000	0.0000	0.0000	0.0000		Stretch factor	0	-0.0041	-0.0042	-0.0044	-0.0045	
Growth	*0*	0.000	0.000	0.000	0.000		Billing Determinant Redn (growth)	*0*	-0.0150	-0.0150	-0.0150	-0.0150	
Adjusted Cn		**0.0351**	**0.0652**	**0.0526**	**0.0378**		**Adjusted Cn**		**0.0160**	**0.0473**	**0.0352**	**0.0204**	
Scap Factor[% RR(prior yr)]	*0*	0.6619	0.6798	0.6929	0.7012		Scap Factor[% RR(prior year)]	*0*	0.6751	0.7059	0.7326	0.7551	
PCI=[(I-X)+Cn-(Scap*(I-X)]	*0*	0.0398157	0.0697214	0.0569125	0.041947		**PCI=[(I-X)+Cn-(Scap*(I-X)]**	*0*	0.0196056	0.0505314	0.038182	0.023087	
PCI Escalator %	*N/A*	3.98	6.97	5.69	4.19		**PCI Escalator %**	*N/A*	1.96	5.05	3.82	2.31	
Revenue Requirement S M	***644.20***	**669.85**	**716.55**	**757.33**	**789.10**	**3577.03**	**Revenue Requirement $ M**	***644.20***	**656.83**	**690.02**	**716.37**	**732.91**	**3440.32**
Rate (RR) Increase	*12.92%*	3.98%	6.97%	5.69%	4.19%	**6.75%**	Rate (RR) Increase	12.92%	1.96%	5.05%	3.82%	2.31%	**5.21%**

*THESL Correction Carried Forward: Corrected to match values in cells D42 to G42.

*Variance from PEG: PEG's proposal is to add back "Scap*X".

*THESL Correction Carried Forward: Cells corrected to reflect Toronto Hydro's proposed Scap formula.

*THESL Correction Carried Forward: Revenue Requirement calculation incorrectly added $1M to each cell.

Energy Probe SCENARIO B							~20% lower CAPEX + $10 M Annual OM&A Reduction						
	THESL Formula							PEG Formula					
Key Assumptions							**Key Assumptions**						
X Stretch factor	-0.003						X Stretch factor	-0.006					
Cn Stretch factor	0						Cn Stretch factor	-0.004					
Billing Determinant Adjustment	0						Billing Determinant Adjustment	-0.015					
Growth*	0						Growth	0					
PCI=(I-X)+Cn-Scap*(I-X)		**PCI Formula Calculation**					**PCI=(I-X)+Cn-Scap*(I-X)**		**PCI Formula Calculation**				
THESL Formulation	*2015 Base Y*	**2016**	**2017**	**2018**	**2019**	**TOTAL**	**PEG Formulation**	*2015 Base Y*	**2016**	**2017**	**2018**	**2019**	**TOTAL**
Input Parameters							Input Parameters						
Inflation	*N/A*	0.017	0.017	0.017	0.017		Inflation	*N/A*	0.017	0.017	0.017	0.017	
X=Stretch Factor	*N/A*	-0.003	-0.003	-0.003	-0.003		X=Stretch Factor	*N/A*	-0.006	-0.006	-0.006	-0.006	
I-X	***0***	**0.014**	**0.014**	**0.014**	**0.014**		**I-X**	***0***	**0.011**	**0.011**	**0.011**	**0.011**	
Base year RR	***634.2***						Base year RR	***634.2***					
Capital-related RR	***420.8***	***443.4***	***487.1***	***524.8***	***553.4***		**Capital-related RR**	***420.8***	***443.4***	***487.1***	***524.8***	***553.4***	
Cn	*0*	0.0356	0.0662	0.0534	0.0383		Cn	*0*	0.0356	0.0676	0.0554	0.0405	
Stretch factor	*0*	0.0000	0.0000	0.0000	0.0000		Stretch factor	*0*	-0.0041	-0.0043	-0.0045	-0.0046	
Growth	*0*	0.000	0.000	0.000	0.000		Billing Determinant Redn	*0*	-0.01500	-0.01500	-0.01500	-0.01500	
Adjusted Cn		**0.0356**	**0.0662**	**0.0534**	**0.0383**		**Adjusted Cn**		**0.0165**	**0.0483**	**0.0360**	**0.0209**	
Scap Factor[% RR(prior yr)]	*0*	0.6721	0.6897	0.7026	0.7108		Scap Factor[% RR(prior year)]	*0*	0.6855	0.7162	0.7428	0.7653	
PCI=[(I-X)+Cn-(Scap*(I-X)]	*0*	0.040226	0.0705853	0.0575421	0.042339		**PCI=[(I-X)+Cn-(Scap*(I-X)]**	*0*	0.0199819	0.0513804	0.038805	0.0234711	
PCI Escalator %	*N/A*	4.02	7.06	5.75	4.23		**PCI Escalator %**	*N/A*	2.00	5.14	3.88	2.35	
Revenue Requirement S M	***634.20***	**659.71**	**706.28**	**746.92**	**778.54**	**3525.65**	**Revenue Requirement $ M**	***634.20***	**646.87**	**680.11**	**706.50**	**723.08**	**3390.77**
Rate (RR) Increase	***11.17%***	**4.02%**	**7.06%**	**5.75%**	**4.23%**	**6.45%**	**Rate (RR) Increase**	**11.17%**	**2.00%**	**5.14%**	**3.88%**	**2.35%**	**4.91%**
***Growth set at zero per J3.3 Response**													

*THESL Correction Carried Forward: Corrected to match values in cells D69 to G69.

*Variance from PEG: PEG's proposal is to add back "Scap*X".

*THESL Correction Carried Forward: Cells corrected to reflect Toronto Hydro's proposed Scap formula.

*THESL Correction Carried Forward: Revenue Requirement calculation incorrectly added $1M to each cell.

ORAL HEARING UNDERTAKING RESPONSE TO BUILDING OWNERS AND MANAGERS OF THE GREATER TORONTO AREA

UNDERTAKING NO. J9.6:

Reference(s):

To confirm whether reliability issues noted by Redpath will be addressed.

RESPONSE:

Redpath's reliability issues between January 2012 and December 2013 were primarily due to defective primary cable. Toronto Hydro is working to address these issues through a number of projects that target renewal of aging cable fed from Esplanade TS. Toronto Hydro is also planning load transfer work to reduce the overall exposure of the station bus to power quality events and to reduce the load on the station.

The proposed work is planned within the following Distribution System Plan ("DSP") programs (Exhibit 2B):

- Underground Circuit Renewal (Section E6.1)
- Load Demand (Section E5.4)

Mr. Brett also asked about the reliability issues noted by Wrigley. The issues between January 2012 and December 2013 were flagged to various cause codes, including:

- Adverse Weather
- Defective Equipment – Cable – Primary
- Foreign Interference
- Tree Contacts
- Unknown

ORAL HEARING UNDERTAKING RESPONSE TO BUILDING OWNERS AND MANAGERS OF THE GREATER TORONTO AREA

Toronto Hydro is working to address these issues through various projects that target aging assets and that reconfigure existing assets out of high risk areas such as ravines. These projects are generally related to feeders supplied by Leaside TS. There is also work planned to replace assets such as R1 SCADA-Mate switches and defective SMD-20 switches, which will provide Toronto Hydro with improved system flexibility during outages.

The proposed work is planned within the following DSP programs (Exhibit 2B):

- Load Demand (Section E5.4)
- Underground Circuit Renewal (Section E6.1)
- Overhead Infrastructure Relocation (Section E6.5)
- SCADAMATE R1 Renewal (Section E6.8)
- Polymer SMD-20 Renewal (Section E7.6)

These programs are intended to improve the overall reliability of the feeder serving this customer and may also reduce momentary events and voltage sags.

RESPONSE TO THE LETTERS OF COMMENT

In the course of Toronto Hydro's 2015-2019 Custom IR application, the Ontario Energy Board ("OEB") received three letters of comment from Toronto Hydro's customers, namely from Messrs. Norm Hann, Ron Dabor Sr., and Richard Cassel. Toronto Hydro appreciates its customers sharing their observations and provides the following response.

While each author raised a number of points, the above-noted letters generally addressed three major areas, including Toronto Hydro's variable compensation structure, efficiencies/savings available within Toronto Hydro's budget and the electricity sector more generally, as well as Toronto Hydro's system planning and response procedures associated with major storms. Toronto Hydro will address each of these topics in order.

Incentive/Variable Compensation

In his commentary, Mr. Cassel requests that the OEB give consideration to mandating that Management employee's variable compensation structures be based on multiple criteria (including maintenance standards, safety record, profit and customer satisfaction and be determined by an independent third party).

As discussed in Exhibit 4A, Tab 4 Schedule 5 of Toronto Hydro's application the utility's "variable performance pay rewards employees for their contribution to the achievement of business goals and objectives tied to the utility's pillars in combination with the successfully demonstrated corporate competencies".[1] In other words, each eligible employee's variable compensation pay depends on their performance relative to specific objectives outlined in their annual performance contracts, and their contribution to a set of departmental and corporate measures, known as the Key Performance Indicators, relating to customer service, operating activities, financial performance and employee

[1] Exhibit 4A, Tab 4 Schedule 5, p.7

health and safety. More information regarding Toronto Hydro's corporate Key Performance Indicators can be found in Toronto Hydro's response to interrogatory 1B-SIA-2.

With respect to Mr. Cassel's suggestions regarding the third-party evaluation of variable compensation amounts for Toronto Hydro's management, the utility notes that it has filed in this proceeding an independent third-party study which benchmarks its compensation and benefits program relative to other energy sector entities, as well as general industry organizations. This study, prepared by Towers Watson, can be found at Exhibit 4A, Tab 4, Schedule 6.

To summarize, Toronto Hydro's variable pay structure is based in part on the individuals' contribution to a broad range of corporate objectives, and is subject to a third-party assessment as part of an overall compensation and benefits benchmarking exercise.

Available Savings and Efficiencies

Toronto Hydro is not in a position to comment on Mr. Dabor's observations regarding Ontario Power Generation (OPG) and its operations. However, the utility notes that in the current application, it has provided a significant amount of evidence regarding efficiency and productivity. This evidence is located at Exhibit 1B, Tab 2, Schedule 5 and includes:

- an econometric total cost benchmarking study prepared by Power System Engineering Inc. that evaluates Toronto Hydro's historical and projected total cost levels against the model-derived efficient cost levels for a utility with Toronto Hydro's business characteristics,
- a past productivity study that details the significant productivity/efficiency efforts undertaken by the utility from the time of Toronto's municipal amalgamation to 201, and

- evidence discussing Toronto Hydro's corporate approach to productivity and performance measurement which contains multiple examples of current and planned initiatives underlying the utility's culture of continuous improvement.

Finally, Toronto Hydro notes that its application is underlined by a custom Price Cap Index formula, which is designed to incent the utility to continuously seek operating efficiencies throughout the remainder of its 2015-2019 plan.

To summarize, Toronto Hydro has advanced a substantive and comprehensive account of its productivity and efficiency accomplishments to date, the reasonableness of its cost forecasts and the key tenets of the utility's productivity and continuous improvement culture.

Storm-Related Investments

In his letter, Mr. Hann raises a number of technical issues pertaining to Toronto Hydro's storm-related system design parameters and operating practices, as well as the specific circumstances surrounding the utility's response to the December 2013 Ice Storm.

Toronto Hydro notes that the issues surrounding major event preparedness and response have been thoroughly canvassed in the Report of the Independent Review Panel filed at Exhibit 4A, Tab 2, Schedule 4, Appendix A.

As stated in the Executive Summary [Exhibit 1A, Tab 2, Schedule 1], over the 2015-2019 timeframe, Toronto Hydro's plans supporting its funding requests include taking a number of steps to enhance its storm-related operational practices and capabilities, including an upgrade of its Outage Management System, enhancements to the damage

assessment activities, outage restoration time estimation practices, and other improvements recommended by the Panel's Report.[2]

In addition, Toronto Hydro's application contains a number of proposed capital investments and maintenance activities that can be expected to improve system performance against extreme weather, as well as to address their respective primary drivers. Among these programs are:

- Overhead Infrastructure Relocation;
- Rear Lot Conversion;
- Box Construction Conversion;
- Feeder Automation;
- Contingency Enhancement;
- Downtown Contingency;
- Design Enhancement; and
- Vegetation Management.

Toronto Hydro assesses that undertaking the above-referenced investments, activities and operating enhancements, and leveraging the practical experience and insights gained from the 2013 December Ice Storm will enable the utility to increase its service levels in future emergency situations.

[2] Exhibit 1A, Tab 2, Schedule 1, pp. 13A-14.