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November 28, 2014

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 – Outstanding Undertaking Response
OEB File No. EB-2014-0116

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

On November 24, 2014, Toronto Hydro filed its responses to all undertakings provided at the Technical Conference on November 17 and 18, 2014, with the exception of Undertaking TCQ J1.7. Enclosed is the response to this Undertaking.

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

Yours truly,

[original signed by]

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

:encl.

:DC\acc

cc: Charles Keizer and Crawford Smith
Intervenors of Record for EB-2014-011

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November 24, 2014

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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.

Toronto Hydro is filing responses to all undertakings provided at the Technical Conference on November 17 and 18, 2014, with the exception of Undertaking TCQ J1.7. Toronto Hydro discovered an error with respect to this response just prior to filing, is working to correct this error and will file the response shortly.

Two undertaking responses contain confidential information. Under separate cover, Toronto Hydro requests that this information be treated confidentially, pursuant to the OEB's *Rules of Practice and Procedure* and *Practice Direction on Confidential Filings.*

Toronto Hydro is providing four excel files as part of the responses to the following undertakings:

- J2.4 – Society, Compensation Table;
- J2.26 – VECC, Appendices A and B; and

- J 2.28 – VECC 79, Cost Allocation Model.

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

Yours truly,

[original signed by]

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cc: Charles Keizer and Crawford Smith
Intervenors of Record for EB-2014-011

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November 24, 2014

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 – Confidential 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.

Pursuant to Rule 10.01 of the OEB's *Rules of Practice and Procedure*, Toronto Hydro requests that certain information in the undertaking responses be kept confidential. Details about the particular confidential information and the basis of the request for confidential treatment are provided below.

1. Design and Construction Contractor Unit Prices

- Undertaking Response to J1.12 part (b)

2. Requests for Proposal for Design and Construction Contracts and Selection Criteria Weightings

- Undertaking Response to J2.29 – CUPE –7

Toronto Hydro seeks confidential treatment of the above noted undertaking responses. The information contained in these responses is sensitive from both a commercial and labour relations perspective, and its disclosure could interfere significantly in Toronto Hydro's negotiations with design and construction contractors, as well as in labour bargaining negotiations. Such interference could put upward pressure

on contract prices and compensation costs and result in additional cost to the utility and, by extension, reduced value for rate payers. Toronto Hydro respectfully submits that this information should be kept confidential.

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

Yours truly,

[original signed by]

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

:encl.

:DC\JL\acc

cc: Charles Keizer and Crawford Smith
Intervenors of Record for EB-2014-0116

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO VULNERABLE ENERGY CONSUMERS COALITION

UNDERTAKING NO. J1.1:

Reference(s):

To identify what incentives or penalties are applied with respect to meeting any of the metrics or targets that Toronto Hydro is proposing to report on as part of its plan.

RESPONSE:

Toronto Hydro has developed a set of 12 measures to monitor quality and drive continuous improvement in its distribution system planning and implementation work over the 2015-2019 planning horizon. The measures cover several distinct dimensions of the utility's capital planning and implementation processes and/or speak directly to the outcomes of such processes, motivated by customer needs, regulatory compliance, or corporate efficiency objectives. These metrics are intended to provide the OEB and other interested stakeholders a transparent view into what and how the utility conducts capital planning and execution, and monitor the associated activities. Together with reporting under the OEB Scorecard, Toronto Hydro believes that it has proposed a robust reporting and monitoring program for the 2015 – 2019 CIR term.

The measures and metrics underlying the Distribution System Plan are based on the OEB's Chapter 5 Filing Requirements, particularly section 5.2.3. The Filing Requirements do not require utilities to establish specific targets associated with these metrics. As such, the utility has not established specific incentives or penalties associated with its performance in respect of the proposed measures and metrics. Moreover, a number of the proposed metrics are still in early stages of their development and/or

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO VULNERABLE ENERGY CONSUMERS COALITION

require further research/pilot studies to confirm viability. Accordingly, Toronto Hydro does not believe it would be appropriate to set targets and associated incentives and penalties for these metrics.

In addition, it is Toronto Hydro's assessment that establishing firm targets based on projections is premature for the purposes of the 2015-2019 CIR period, given the relative lack of experience in capital-related performance measurement on the part of the OEB and utilities. This is Toronto Hydro's position in relation to all 12 proposed measures, including those for which the utility provided the forecasted values.

Toronto Hydro notes, however, that several of the measures advanced, specifically SAIDI, SAIFI, FESI and Supply Chain Efficiency: Materials Handling On Cost, are related in various degrees to Toronto Hydro's internal Key Performance Indicators ("KPIs") as provided in response to the Interrogatory 1B-SIA-2. The utility's performance is measured internally on the basis of these and other KPIs that together form a balanced Corporate Scorecard, and are part of Toronto Hydro's performance management system.

Moreover, the SAIDI, SAIFI and Distribution System Plan Implementation Progress measures also form a part of the utility's OEB Distributor Scorecard, initiated by the OEB in 2013, and reproduced as a part of response to Interrogatory 2B-EP-14 part (d). These metrics include targets.

Following the conclusion of this proceeding, the utility intends to review its Corporate Scorecard for opportunities to further align the scorecard with regulatory reporting and monitoring activities.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ENERGY PROBE RESEARCH FOUNDATION

UNDERTAKING NO. J1.2:

Reference(s):

To provide written responses with the conditions noted by Mr. Keizer with respect to the Technical Conference questions presented by Energy Probe in its letter dated November 16th, 2014

RESPONSE:

Please see attached responses labeled Schedules J2.1-EP-49 to J2.1-EP-53.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ENERGY PROBE RESEARCH FOUNDATION

UNDERTAKING NO. J1.2-EP-49:

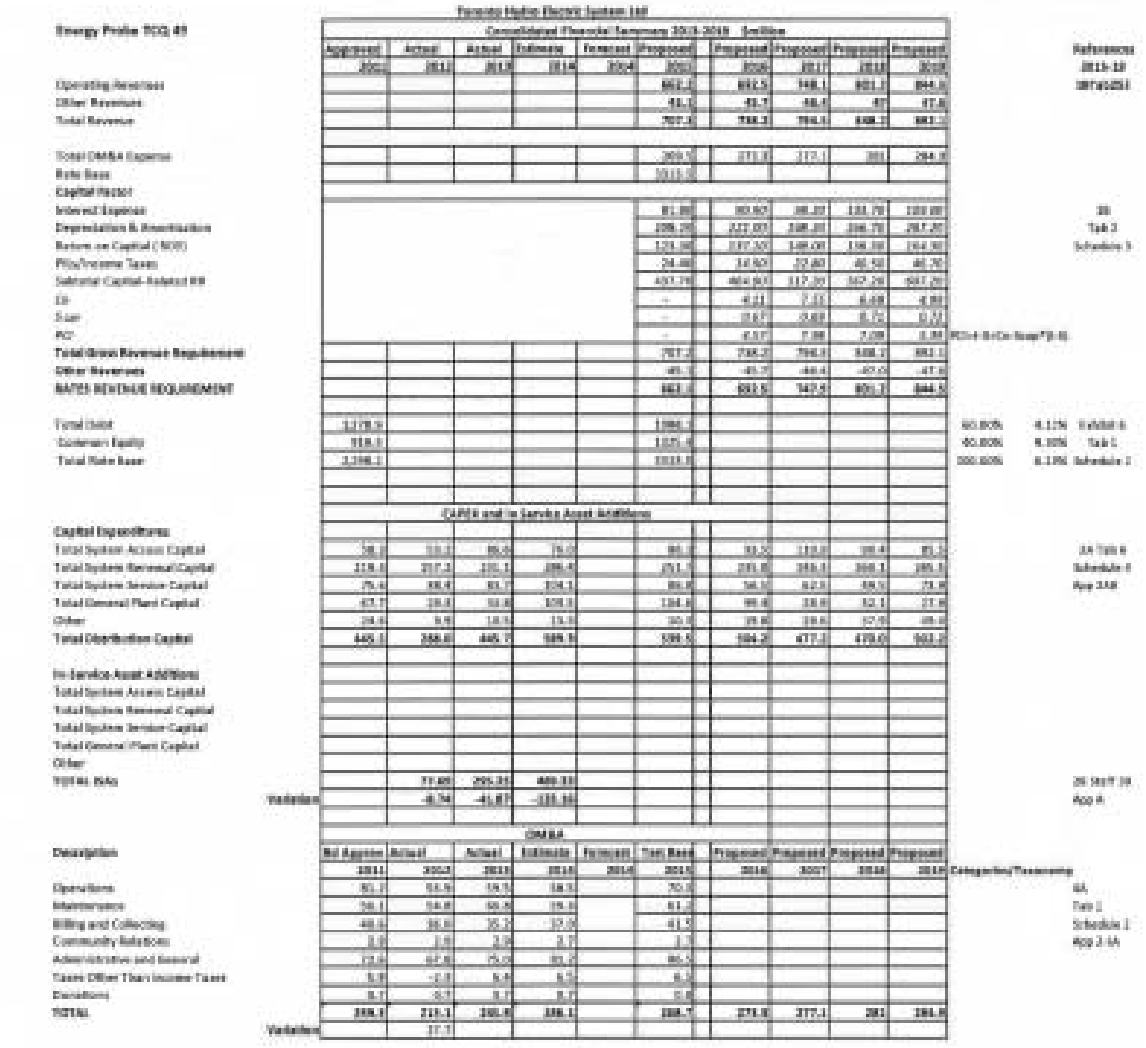
Reference(s): **Revenue Requirement Work Form Exhibit 6, Tab 1, Schedule 2**
Exhibit 2A, Tab 6, Schedule 3, OE8 Appendix 2AB (CAPEX);
2B, Staff 39, Appendix B (Capex 2012-2014);
Exhibit 4A, Tab 1, Schedule 2, OEB Appendix 2-JA (OM&A 2011-2015):
Exhibit 6, Tab 1, Schedule 1 (RR 2015);
Exhibits 1B, Tab 2, Schedule 3, Tables 1-5 (CIR PCI and Capital Factor)

Preamble:

Using the References listed above Energy Probe has prepared a Draft Consolidated Financial Summary 2011-2019.

a) In the *Draft Energy Probe Consolidated Financial Summary Schedule* Spreadsheet please populate with missing data, check values and formulas and insert References.
b) Please update PCI Formula amounts based on new OE8 *I Factor* of 1.6% for 2015.
c) Please provide/insert summary categories/taxonomy for 2016-2019 CIR OM&A based on THESL's planned reporting regime.
d) Please provide any notes re assumptions and values.
e) Please provide your response as a live Excel Spreadsheet.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ENERGY PROBE RESEARCH FOUNDATION



RESPONSE:

Toronto Hydro declines to provide the responses to questions under subs a) through e) inclusively, on the basis of relevance. The premise underlying Energy Probe's request is that Toronto Hydro is filing a five-year cost of service application, and accordingly

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ENERGY PROBE RESEARCH FOUNDATION

possesses detailed forecasts of all the elements comprising the utility's revenue requirement for each of the years. This is not Toronto Hydro's proposal. As discussed in Exhibit 1B, Tab 2, Schedule 3, Toronto Hydro's 2016-2019 rates are proposed to be set on the basis of a custom Price Cap Index that incorporates the OEB's inflation and productivity values, utilizes a custom stretch factor derived on the basis of the total cost econometric benchmarking study filed in Appendix B to Exhibit 1B, Tab 2, Schedule 5 and includes a capital factor to fund Toronto Hydro's necessary investments. In accordance with the formulaic approach referenced above and consistent with the OEB's 4GIRM approach, Toronto Hydro has not forecasted its OM&A, revenue offsets or taxes for 2016-2019.

Toronto Hydro notes, however, that parties can obtain additional information pertaining to the utility's financial plans and related matters for the 2015-2019 timeframe from the utility's Business Plan filed with the OEB on a confidential basis on November 17, 2014 (filed as Appendix A to Interrogatory 1A-CCC-1).

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ENERGY PROBE RESEARCH FOUNDATION

UNDERTAKING NO. J1.2-EP-50:

Reference(s): **Exhibit 6.1.1**
Exhibit 2A, Tab1, Schedule 1
2A IRR Staff 39
2A, Tab 9, Schedule 1
4A, Tab 1, Schedule 1

Preamble:

2015 Base Revenue Requirement is $107.4 million above Board Approved 2011 RR. Energy Probe wishes to have more information on the record regarding the impact of Major Drivers, including In-Service Additions to Rate Base and increases in OM&A Expenses.

a) Please provide a breakdown by year (2011-2015) of the $66.1 million Revenue Requirement change in Fixed Assets shown in first Reference Table 3.
b) Please provide information regarding how much of the fixed assets driving the 2015 revenue requirement increase are in service at the end of 2013 and forecast to be in service at the end of 2014. Provide Rate base for 2013 and 2014.
c) What happens to the Net Assets in Service end of 2014 Variance? Why cannot the 2015 Opening Balance be adjusted, given the likely date of Implementation of the Rate Order from this Application?
d) Please provide a breakdown by year of the Revenue Requirement change in OM&A of $33.5 million shown in first reference Table 3. In particular, show payroll/compensation and OM&A capitalization.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ENERGY PROBE RESEARCH FOUNDATION

RESPONSE:

a) Please refer to the table provided in Appendix A.

b) The 2013 total fixed asset additions are $381.2 million and 2014 forecasted total fixed asset additions are $480.3 million. Refer to Exhibit 2A, Tab 1, Schedule 2, pages 3 and 4 for details. Refer to Exhibit 2A, Tab 1, Schedule 1, Table 1 for 2013 and 2014 and rate base.

c) Please see Toronto Hydro's response to Interrogatory 1A-CCC-9 that explains the process of rate base determination for the purposes of the 2015 rebasing. Moreover, given the current (firm and indicative) timelines for the remaining portions of the CIR application review, Toronto Hydro does not believe that the final 2014 ratebase amounts would be available in time to set the ratebase on the basis of 2014 actuals.

d) Please refer to the table provided in Appendix B.

Breakdown of 2011-2015 change in Revenue Requirement from change in Fixed Assets

Description	2011 Opening Balance CGAAP	2011 Approved CGAAP	2011 Actual CGAAP	2012 Historical UGAAP	2013 Historical UGAAP	2014 Bridge UGAAP	2014 Bridge MIFRS	2015 Test MIFRS
NET ASSETS - OPENING BALANCE	**N/A**	**1,897.8**	**N/A**	**2,139.0**	**2,251.9**	**2,356.0**	**N/A**	**2,435.1**
ICM								383.8
Streetlighting								39.8
NET ASSETS - ADJ. OPENING BALANCE	**N/A**	**1,897.8**	**N/A**	**2,139.0**	**2,251.9**	**2,356.0**	**N/A**	**2,858.8**
Land and Buildings	59.7	68.5	61.3	63.1	67.3	69.1	68.7	143.4
TS Primary Above 50	20.0	26.9	10.5	11.0	11.0	11.1	11.1	29.7
Distribution System	199.7	211.3	222.6	226.5	229.3	245.5	244.2	309.8
Poles and Wires	2,625.4	2,818.4	2,893.6	3,037.9	3,179.0	3,298.9	3,252.0	3,826.8
Line Transformers	691.7	720.6	731.7	757.4	791.9	810.3	779.6	835.9
Services and Meters	298.7	324.4	303.7	317.2	278.1	298.7	298.7	349.0
General Plant	135.2	142.5	130.1	134.4	141.6	167.2	167.1	158.9
Equipment	160.4	176.8	180.1	178.5	181.8	189.7	189.7	198.0
IT Assets	194.2	252.5		50.5	56.3	87.4	87.4	98.9
Other Distribution Assets	70.1	72.2	323.9	348.9	380.2	402.4	404.9	522.3
Contributions and Grants	(271.5)	(281.3)	(294.5)	(316.6)	(338.8)	(354.3)	(354.3)	(372.5)
GROSS FIXED ASSETS	**4,183.5**	**4,532.5**	**4,563.2**	**4,809.0**	**4,977.7**	**5,226.0**	**5,149.0**	**6,100.2**
ACCUMULATED DEPRECIATION	**(2,285.7)**	**(2,427.4)**	**(2,424.2)**	**(2,557.1)**	**(2,621.7)**	**(2,771.2)**	**(2,713.9)**	**(2,817.4)**
NET ASSETS - CLOSING BALANCE	**1,897.8**	**2,105.1**	**2,139.0**	**2,251.9**	**2,356.0**	**2,454.8**	**2,435.1**	**3,282.8**
AVERAGE NET FIXED ASSETS	**N/A**	**2,001.5**	**N/A**	**2,195.4**	**2,304.0**	**2,405.4**	**N/A**	**3,070.8**
Change from 2011 OEB Approved				**194.0**	**302.5**	**404.0**		**1,069.3**
Base Revenue Requirement Impact (Change in NFA x WACC)				**13.5**	**21.0**	**28.0**		**66.2**
WACC				6.94%	6.94%	6.94%		6.19%

Average Net Fixed Assets by Major Plant Account		2011 Approved CGAAP		2012 Historical UGAAP	2013 Historical UGAAP	2014 Bridge UGAAP		2015 Test MIFRS
ICM - adjustment to opening balance								191.9
Streetlighting - adjustment to opening balance								19.9
Land and Buildings		64.1		62.2	65.2	68.2		106.0
TS Primary Above 50		23.5		10.7	11.0	11.0		20.4
Distribution System		205.5		224.6	227.9	237.4		277.0
Poles and Wires		2,721.9		2,965.8	3,108.5	3,238.9		3,539.4
Line Transformers		706.1		744.6	774.7	801.1		807.7
Services and Meters		311.5		310.5	297.7	288.4		323.9
General Plant		138.8		132.2	138.0	154.4		163.0
Equipment		168.6		179.3	180.2	185.7		193.8
IT Assets		223.3		50.5	53.4	71.9		93.1
Other Distribution Assets		71.1		336.4	364.5	391.3		463.6
Contributions and Grants		(276.4)		(305.5)	(327.7)	(346.5)		(363.4)
GROSS FIXED ASSETS		**4,358.0**		**4,711.3**	**4,893.4**	**5,101.9**		**5,836.4**
ACCUMULATED DEPRECIATION		**(2,356.5)**		**(2,490.7)**	**(2,589.4)**	**(2,696.5)**		**(2,765.7)**
NET ASSETS		**2,001.5**		**2,220.7**	**2,304.0**	**2,405.4**		**3,070.8**
Change from 2011 OEB Approved				**219.2**	**302.5**	**404.0**		**1,069.3**
Base Revenue Requirement Impact (Change in NFA x WACC)				**15.2**	**21.0**	**28.0**		**66.2**
WACC				6.94%	6.94%	6.94%		6.19%

2011-2015 Change in OM&A

	2011	2012	2013	2014	2015
	Approved	Actual	Actual	Bridge	Test
OM&A Expense					
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	72.0	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 OM&A Expense[1,2]	**238.0**	**215.8**	**246.4**	**246.6**	**269.5**
OM&A by Expenditure Type					
Compensation [Exhibit 4A, Tab 4, Schedule 5]	234.6	215.7	216.8	220.6	225.3
Labour Capitalization	(99.7)	(85.5)	(94.0)	(91.7)	(92.2)
Other OM&A costs	337.7	301.2	340.5	338.3	361.8
Restructuring Costs	-	27.7	-	-	-
Total OM&A Expense[1,2]	**238.0**	**243.5**	**246.4**	**246.6**	**269.5**
Change in OM&A from 2011 OEB-Approved[2]		5.5	8.5	8.7	31.6

[1]Because OM&A was settled on an envelope basis in the utility's last rebasing application (EB-2010-0142), and because OEB-Approved and 2011 actual expenditures were very similar ($238 OEB-Approved vs. $238.6 actual expenditures), Toronto Hydro as only reported 2011 actual expenditures in the OEB appendices

[2]2015 OM&A as presented in the above table includes ITC Credits for the amount of $2.0M. This credit was presented as part of Income Taxes in Exhibit 6, Tab 1 , Schedule 1, Table 1

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ENERGY PROBE RESEARCH FOUNDATION

UNDERTAKING NO. J1.2-EP-51:

Reference(s): **Exhibit 2A, Tab 9, Schedule 1**
2B, IRR EP-13
Hydro One Transmission EB-2014-0140Section II Settlement Agreement Section 10, pages 14/15

Preamble:

Given the History of significant differences between forecast and actual CAPEX and In Service Assets, Energy Probe requests that THESL provide information on an ISA Variance Account and provide an illustrative example of how this would function within the CIR.

a) Confirm that to assess efficiency, THESL is proposing to use a *CAPEX Implementation Progress Index* rather than an In-Service Assets (ISA) Index.
b) Using THESLs CAPEX Forecast 2015-2019 please provide an estimate of In Service Additions 2015-2019
c) Using the same Format as Hydro One Transmission please provide an illustration of a difference/variance of $5 million in In-Service additions for each of 2015-2019.
d) Please provide an illustration of how the Revenue Requirement would be adjusted in 2016-2019 based on the Variance in ISAs and Return on Capital.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ENERGY PROBE RESEARCH FOUNDATION

TCQ Energy Probe-51 Attachment: Hydro One Tx ISA Variance Account

RESPONSE:

a) Please see Toronto Hydro's response to interrogatory 2B-CUPE-1. As stated in the response, the measure in question has been advanced to track the effectiveness of the utility's Distribution System Plan implementation, rather than efficiency. Toronto Hydro confirms that its proposed performance measures as described in Exhibit 2B Section C do not include an ISA Implementation Index.

b) Refer to the response to interrogatory 2B-SEC-25 for the in-service additions forecasted for 2015 to 2019.

c) Toronto Hydro has not proposed a variance account for in-service additions. Toronto Hydro's proposal includes a request for the flexibility to shift approved capital funding between portfolios and calendar years. This proposal is symmetrical in that

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ENERGY PROBE RESEARCH FOUNDATION

the utility would be at risk for capital expenditures that exceed the amount funded in rates for a given year. While Toronto Hydro requests modest flexibility for inter-year variances, the utility expects that by the end of the CIR plan term, it will execute the full slate of proposed capital work.

d) This request is not consistent with Toronto Hydro's proposed rate framework, which applies a custom Price Cap Index ("PCI") to base rates during 2016 to 2019. Toronto Hydro is proposing to apply a custom PCI for 2016 to 2019 and, by extension, is not proposing to rebase during that period. Accordingly, there is no Revenue Requirement for those years.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ENERGY PROBE RESEARCH FOUNDATION

UNDERTAKING NO. J1.2-EP-52:

Reference(s): **2A.10.2; 2B Section A Page 4; 2B Section C Table 1; 2B Section C4.1; 2B (C), Staff IRR 33; 2A Energy Probe IRR 8-10 (SAIDI, SAIFI etc.) 2A IRR Energy Probe 14.**

Preamble:

In addition to Customer Service Quality Metrics, THESL has proposed 12 System Reliability/Efficiency Metrics. This question requests THESLs forecasts for these Metrics and whether and how these will be used as measures of outcomes from the CIR.

a) Please explain the differences and reconcile the SAIDI/SAIFI values in Staff 33 and Energy Probe IRR 8.

b) If the differences are due to LoS or MEDs please indicate/confirm how THESL will report SAIDI/SAIFI and other SR metrics during the CIR Plan.

c) Please provide a consolidated Table and Excel Spreadsheet with a consolidated 2014-2019 forecast of the 12 metrics listed in 2B Section C Table 1. Unless the response to part b) is that THESL will include LoS and MEDs, please exclude LoS and MEDs. If THESL is not able to provide all 12 forecasts, provide those it can and explain the reasons.

d) Please indicate in detail how the 12 metrics/measures will be used to assess Outcomes of the CIR.

e) Please indicate why SAIDI, SAIFI and CAIDI are/are not appropriate metrics to assess outcomes of THESLs Vegetation Management Program (reduced Tree Contacts).

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ENERGY PROBE RESEARCH FOUNDATION

f) Please indicate why SAIDI, SAIFI and CAIDI are/are not appropriate metrics to assess THESL's Equipment Renewal program (reduce Defective Equipment Outages).

g) What measures/metrics/scorecard other than those listed in 2B, Section C does THESL offer as appropriate indicators to assess the Outcomes of its CIR?

RESPONSE:

a) The data provided in response to interrogatory 2B-OEBStaff-33 excludes Major Event Days ("MEDs") only, whereas the response to interrogatory 2A-EP-8 excludes both MEDs and Loss of Supply ("LoS").

b) As described in the Exhibit 2B Section C2.1, Toronto Hydro proposes to report the SAIDI and SAIFI results excluding both MEDs and LoS. Please refer to Exhibit 2B Section C2.1 for the descriptions of how each proposed metric is measured.

c) Please see the table below and the attached spreadsheet, along with the explanations that follow. Please also refer to the notes provided in the spreadsheet, which set out important information and referenced with respect to the provided forecasts.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ENERGY PROBE RESEARCH FOUNDATION

Measure[1]	2014 Forecast	2015 Projection	2016 Projection	2017 Projection	2018 Projection	2019 Projection
SAIDI	0.97	1.16	1.1	1.05	1.01	0.95
SAIFI	1.31	1.39	1.28	1.2	1.11	1.03
CAIDI	0.74	0.83	0.86	0.87	0.91	0.92
FESI						
MAIFI	2.76	2.36	2.24	2.13	2.02	1.91
DSP Implementation Progress	105%					
Planning Efficiency	5.26%	6.20%	6.81%	6.46%	6.60%	6.24%
Supply Chain Efficiency[2]	14%	12%				
Construction Efficiency: Internal vs External Benchmarking						
Construction Efficiency: Standard Asset Assembly Development						
Outages Caused by Defective Equipment[3]	711					
Stations Capacity Availability[4]	7					

[1] The following are references to Interrogatory responses from which the forecasts provided were referenced. Please review each interrogatory for important assumptions and caveats that apply in each particular case.
(i) SAIDI, SAIFI, CAIDI, MAIFI: **2B-EP-14 (a)**
(ii) DSP Implementation Progress: **2B-SEC-18**
(iii) Planning Efficiency (2015-2019): **2B-SEC-19**
(iv) Supply Chain Efficiency: **Exhibit 4A Tab 2 Schedule 12**

[3] The defective equipment outage forecast is based on a linear forecast based on historical performance.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ENERGY PROBE RESEARCH FOUNDATION

i) Please refer to the response to Interrogatory 2B-EP-12(a) for the rationale for not providing the forecasts of the FESI measure.

ii) Please refer to response to Interrogatory 2B-EP-14(a) for the rationale for not providing the forecasts of the DSP Implementation Progress measure.

iii) As discussed in Exhibit 2B Section C3.5.3, Toronto Hydro's tracking of the Standard Asset Assembly measure will amount to annual updates on the project status, given its nascent state. As such, Toronto Hydro is unable to produce a forecast for these measures.

iv) The forecasts for Construction Efficiency: Internal vs. External Benchmarking measure could not be provided since the measure's results are calculated following the completion of the previous year's work program, using a methodology described in Interrogatory Response to 2B-CUPE-2. Given that the reference projects examined vary from year to year, Toronto Hydro submits that there is no practical way to forecast its results on this measure from year to year.

v) With respect to the remaining measures (Supply Chain Efficiency, Outages Caused by Defective Equipment, Stations Capacity Availability). Toronto Hydro respectfully submits that their nature does not lend them to meaningful longer-term forecasts, given that they are designed to track the utility's actual performance, reflective of a number of in-year events that can affect the costs, processes, and the utility's decisions underlying each measure.

[4] The stations capacity 2014 forecast is based on the 2014 Load Forecast, and is subject to update on the basis of the 2015 station load forecast expected in early in 2015. The projection does not account for the impact of the proposed station expansion work that is included in the rate filing, expected to address 4/7 of the stations currently included in the metric by 2018. This will be accounted for once the expansion projects have agreements and commitments in place with Hydro One Networks Inc.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ENERGY PROBE RESEARCH FOUNDATION

More generally, and as stated in Toronto Hydro's response to Interrogatory 2B-EP-14, the OEB's policy with respect to performance measurement in the area of capital planning and implementation is in the early stages. Accordingly, it is Toronto Hydro's assessment that establishing firm targets based on projections is premature for the purposes of the 2015-2019 CIR period, given the relative lack of experience in capital-related performance measurement on the part of the OEB and the utilities. This is Toronto Hydro's position in relation to all 12 proposed measures, included those for which the utility provided the forecasted values.

d) These questions were prepared by Energy Probe and filed prior to Toronto Hydro making its presentation at the Evidence Conference on November 17, 2014. Toronto Hydro discussed in that presentation application outcomes and performance monitoring. Please see Evidence Conference transcript pp.30-32, and the associated Toronto Hydro transcript marked as Exhibit EC1. To summarize, Toronto Hydro has proposed in this application the plan that will enable it to satisfy the RRFE outcomes: customer focus, operational effectiveness, public policy responsiveness and financial performance. Its proposed reporting will facilitate transparent monitoring of the efficiency and effectiveness of the utility's ability to carry out its plan and meet these RRFE outcomes.

e) Please refer to the response to Interrogatory 2A-EP-9 e) part ii).

f) Please refer to the response to Interrogatory 2A-EP-9 e) part i).

g) Please response to part d).

Measure	Forecast 2014	Projection 2015	Projection 2016	Projection 2017	Projection 2018	Projection 2019
SAIDI	0.97	1.16	1.1	1.05	1.01	0.95
SAIFI	1.31	1.39	1.28	1.2	1.11	1.03
CAIDI	0.74	0.83	0.86	0.87	0.91	0.92
FESI						
MAIFI	2.76	2.36	2.24	2.13	2.02	1.91
DSP Implementation Progress	105%					
Planning Efficiency	5.26%	6.20%	6.81%	6.46%	6.60%	6.24%
Supply Chain Efficiency						
Construction Efficiency: Internal vs External Benchmarking						
Construction Efficiency: Standard Asset Assembly Development						
Outages Caused by Defective Equipment	711					
Stations Capacity Availability	7					

Important Notes:

Note (1): This table was assmebled based on the information provided in response to previously filed interrogatory responses. Please refer to the referenced IR for importabnt assumptions and caveats associated with each of the forecasted measures.

Note (2) As stated in the response to IR 2B-EP-14 (b), Toronto Hydro submits that the OEB's policy with respect to performance measurement in the area of capital planning and implementation is in the early stages, and in Toronto Hydro's assessment, establishing firm targets based on projections is premature for the purposes of the 2015-2019 CIR period, given the relative lack of experience in capital-related performance measurement on the part of the OEB and the utilities.

Note (3): Please see the following table fo the forecast data references:

(a) SAIDI, SAIFI, CAIDI, MAIFI: **2B-EP-14 (a)**

(b) DSP Implementation Progress: **2B-SEC-18**

(c) Planning Efficiency: **2B-SEC-19**

Note (4): The stations capacity 2014 forecast is based on the 2014 Load Forecast, and is subject to update on the basis of the 2015 station load forecast expected in early in 2015.
The projection does not account for the impact of the proposed station expansion work that is included in the rate filing, expected to address 4/7 of the stations currently included in the metric by 2018. This will be accounted for once the expansion projects have agreements and commitments in place with Hydro One Networks Inc.

Note (5): The dfeective equipment outage forecast is based on a linear forecast based on historical performance.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ENERGY PROBE RESEARCH FOUNDATION

UNDERTAKING NO. J1.2-EP-53:

Reference(s): 2B, Section C; 2B, IRR Energy Probe14

Preamble:

The second Reference requested the 2013 OEB Scorecard for THESL. This Question requests that THESL populate the OEB Scorecard with its forecasts for the period 2014-2019.

a) Using the THESL 2013 Scorecard as a Base Template please provide forecast measures and metrics for the period 2014-2019.

b) Please provide appropriate explanatory notes and references to sources and the Application evidence.

RESPONSE:

a) Toronto Hydro is not in a position to provide a forecast of the OEB Scorecard measures for 2014-2019 period, given that the Scorecard is an OEB instrument intended to measure utilities' actual performance (lagging indicators) in a given year, rather than a forecast of future performance. Where the OEB Scorecard measures are associated with specific Service Quality Requirement targets, the utility will work to achieve the prescribed levels. For additional information regarding Toronto Hydro's performance plans, please refer to the utility's Business Plan filed on a confidential basis on November 17, 2014, as Appendix A (Supplemental Response) to Interrogatory 1A-CCC-1.

b) Please see the response to a).

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ASSOCIATION OF MAJOR POWER CONSUMERS IN ONTARIO

UNDERTAKING NO. J1.3:

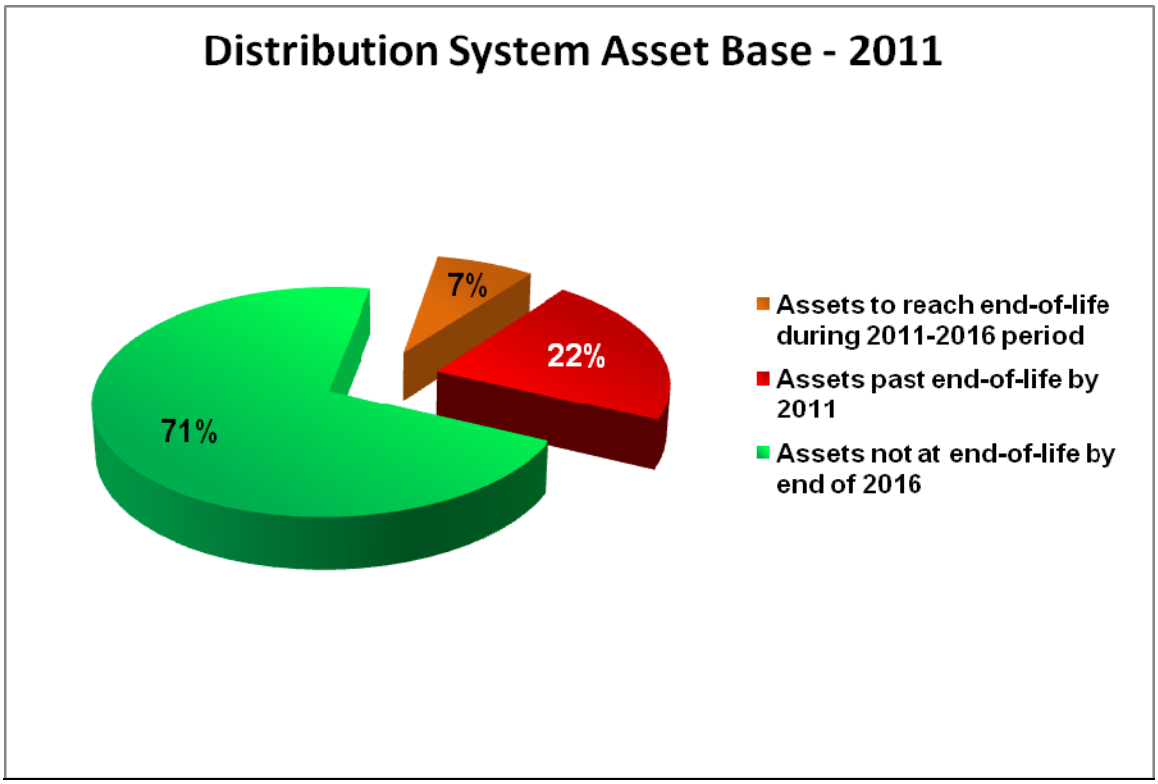
Reference(s):

To update slide 8 with 2011 data.

RESPONSE:

The figure noted below provides the useful life demographics of Toronto Hydro's electrical distribution assets in 2011. Comparing this figure to the figure provided in slide 8 of Exhibit EC1 illustrates that the proportion of assets operating at or beyond the end of useful life has increased from 22% in 2011 to a forecasted 26% in 2015. The two figures also demonstrate that the forecasted rate of aging – as represented by the proportion of existing assets to reach end-of-life over a given five year period – is the same for both baseline years (i.e., 7% for both the 2011-2016 and 2015-2019 periods).

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ASSOCIATION OF MAJOR POWER CONSUMERS IN ONTARIO



Panel: Planning and Strategy

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ASSOCIATION OF MAJOR POWER CONSUMERS IN ONTARIO

UNDERTAKING NO. J1.4:

Reference(s):

Please identify reliability metrics used by THESL to determine system areas requiring A, additional tie and sectionalizing points on loop feeders; B, upgrading existing undersized loop connectors; and C, upgrading capacity of trunk egress cable, and expected improvement of these metrics on the program completion, either collectively or separately.

RESPONSE:

For a detailed discussion of ranking and prioritization of investments within the Contingency Enhancement program, please refer to Exhibit 2B, Section E7.1.4.1.

This program aims to mitigate future SAIDI impacts in areas of the system that feature deficiencies with respect to the ability to quickly restore power to customers in contingency situations. Please refer to the response to interrogatory 2B-AMPCO-1 for a discussion of the expected SAIDI improvements.

It should be noted that Toronto Hydro typically evaluates the expected outcomes of its investment programs using a quantified, risk-based Business Case Evaluation ("BCE") approach. The results of the BCE analysis for this program can be found in Exhibit 2B, Section E7.1.5.3, Table 7. The positive difference in Cost of Ownership related to the planned investments in the first year of this program represents Toronto Hydro's expected benefits for the program.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ASSOCIATION OF MAJOR POWER CONSUMERS IN ONTARIO

UNDERTAKING NO. J1.5:

Reference(s):

To advise the assumptions made with respect to reduction of momentary and sustained faults and customers impacted in arriving at the difference in the cost of ownership for this project; and to identify the reduction in customer risk costs in arriving at the difference in the cost of ownership for this project.

RESPONSE:

The Contingency Enhancement program, discussed in Exhibit 2B, Section E7.1, consists of the following elements:

1. Establishing additional tie and sectionalizing points
2. Upgrading under-sized loop conductors
3. Upgrading the capacity of trunk egress cable

All three of these investments are designed to improve fault isolation in contingency situations, thereby mitigating unnecessary SAIDI impacts on specific feeders. By facilitating the efficient isolation of faulted sections, customers on unaffected sections of the feeder can be switched to an alternate supply resulting in a reduced outage impact, which consequently reduces the Asset Risk cost associated with the assets on the feeder.

The approach to derive the benefits of this program for the Non Asset Risk is inherently similar to the Asset Risk calculation discussed above. By allowing for the isolation of the faulted section as well as enabling load transfer to adjacent circuits, customers on

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ASSOCIATION OF MAJOR POWER CONSUMERS IN ONTARIO

unaffected sections of the feeder can be fed from alternate supply points resulting in a reduced impact due to the fault.

Toronto Hydro would like to correct the statement made by Mr. Otal on page 69, lines 7-9, of the Technical Conference transcript for November 17, 2014 (EB-2014-0116). The Contingency Enhancement program does not specifically target momentary interruptions. Therefore, no benefits due to momentary interruptions are included in the Cost of Ownership calculation.

The expected reduction in the Asset Risk ("AR") cost for the first year of the program is calculated as follows:

Reduction in Asset Risk = AR (Existing) [AR_E] – AR (New) [AR_N]
= $ 274.66 M – 221.67 M
= $ 52.99 M

The expected reduction in Non Asset Risk (NAR) cost for the first year of the program is calculated as follows:

Reduction in the NAR = NAR (Existing) [NAR_E] – NAR (New) [NAR_N]
= $ 719.30 M – 712.51 M
= $ 6.80 M

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ASSOCIATION OF MAJOR POWER CONSUMERS IN ONTARIO

UNDERTAKING NO. J1.6:

Reference(s):

To explain assumptions made with respect to reduction of asset-related risk costs with installation of the reclosures within the calculation of the difference in cost of ownership.

RESPONSE:

As explained in the Overhead Momentary Reduction program in Exhibit 2B, Section E7.4, reclosers are installed on targeted feeders to minimize the effect of both momentary and sustained outages. With reclosers installed, there is a reduction in the number of customers impacted by a sustained or momentary outage as illustrated in Figure 1 below. In this scenario, the customers in Section A are not affected by the fault in Section B due to recloser operation.

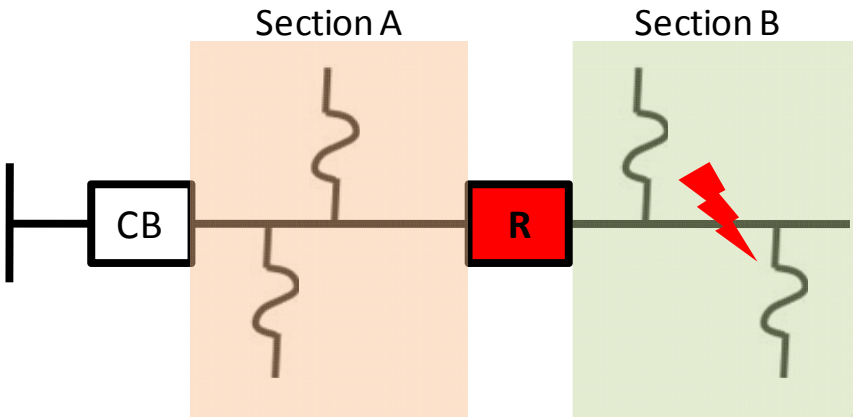


Figure 1: Feeder with circuit breaker and line recloser

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ASSOCIATION OF MAJOR POWER CONSUMERS IN ONTARIO

The expected reduction in impacted customers upstream from the recloser decreases the risk cost associated with assets on that feeder and consequently leads to the difference in the cost of ownership.

Toronto Hydro includes only sustained failure modes when calculating the Asset Risk portion of the Cost of Ownership within the Business Case Evaluation ("BCE"). When calculating the Non-Asset Risk portion of the Cost of Ownership ("NAR") within the same BCE process, it should be noted that while cause codes that may contribute towards momentary interruptions (e.g., tree contacts) are used as part of the NAR calculation, only NAR events that lead to sustained interruptions are considered. In sum, momentary interruptions are not considered in the BCE analysis.

If momentary interruptions were considered as part of either the AR or NAR portions of the Cost of Ownership calculation, the overall difference in Cost of Ownership would necessarily increase, resulting in a larger expected benefit value and ultimately a larger positive NPV value. Therefore, Toronto Hydro's NPV calculation for this program is likely understating the benefits.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ASSOCIATION OF MAJOR POWER CONSUMERS IN ONTARIO

UNDERTAKING NO. J1.7 and Response to Member Quesnelle''s Question Posed during the Evidence Presentation":

Reference(s):

To calculate the financial life of a portion of the assets and economic life of a portion of the assets, on a best efforts basis and provide it if it is relevant; otherwise advise if it is not relevant.

RESPONSE:

In the course of the Evidence Conference, Member Quesnelle asked Toronto Hydro to comment on the relationship between the financial treatment of assets (i.e., Financial Useful Life) and the optimal replacement strategy embodied in the steady state concept (i.e., Economic End-of-Life). What follows in this response demonstrates that the financial assumptions that are made for financial reporting purposes have a dynamic relationship to good engineering, system care and economic decision-making.

The distribution system is in steady state when the backlog of assets operating beyond end-of-life and hence the aggregate operating (or lifecycle) cost is effectively minimized. Toronto Hydro uses a variety of measures to inform its judgment regarding the optimal replacement strategy, which balances system needs with value for ratepayers. (These concepts are explained in Exhibit 2B, Section D.)

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ASSOCIATION OF MAJOR POWER CONSUMERS IN ONTARIO

As indicated in the evidence, the most compelling approach from an economic perspective is to immediately replace the backlog of assets operating beyond end-of-life so that the cost of ownership would be balanced sooner. However, Toronto Hydro has adopted a paced approach for the CIR application. The utility's capital needs currently exceed depreciation. Capital expenditures are expected to converge towards deprecation over time if the investments reflected in the application are made as and when required.

While capital costs and depreciation are expected to converge, this not the same as saying that the Financial Useful Life of assets (i.e., depreciation periods) will converge with their Economic End-of-Life values (i.e., optimal replacement time). These two measures are fundamentally different. The financial lives are based on the range of expected service lives of asset classes as derived from the 2009 "Useful Life of Assets" study.[1] In contrast, the economic lives are determined on an individual basis for each asset based on its particular age and condition (if information is available) and its risk cost.[2]

For these reasons, Economic End-of-Life could not be used to calculate the Financial Useful Life and associated depreciation expense under MIFRS. The economic lives of individual assets within an asset class can vary substantially (for an example see Undertaking J1.15) and can change based on changes in system configuration. Thus economic lives do not offer a consistent and stable metric for recovery of capital cost."

The intent of this undertaking and the other two undertakings that were provided with respect to the concept of "useful life" (namely J1.14 and J1.16) is to facilitate a

[1] Prepared by Kinectrics for Toronto Hydro and filed in EB-2010-0142 (Exhibit Q1, Tab 2)
[2] Risk cost is largely a product of the excess cost to replace an asset on an emergency basis and the interruption cost experienced by customers if it fails, which in turn is based on each individual asset's particular configuration within the distribution system.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ASSOCIATION OF MAJOR POWER CONSUMERS IN ONTARIO

comparison of three useful life metrics that Toronto Hydro utilizes – Financial Useful Life, Useful Life, and Economic End-of-Life – and to explain the relationship between the metrics and how they relate to Toronto Hydro's capital needs.

In the response that follows, Toronto Hydro provides: (1) definitions of the three metrics; (2) an explanation of how these metrics are derived and applied in Toronto Hydro's financial and investment planning policies and processes; and (3) a table, filed as Appendix A, comparing the asset age values for each of the three concepts for various asset classes.

Metrics Definitions

The three metrics in question are defined as follows:

- Financial Useful Life (also previously referred to as "depreciation life") is the period over which an asset is depreciated, resulting in depreciation expense.
- Useful Life (also referred to as "end-of-life" or previously referred to as "engineering end-of-life") is the mean service life of the asset. This metric is used as part of the Current-State System Analysis to determine the percentage of assets at, approaching or beyond their useful lives, and is also used as one of several inputs in the failure probability calculation for assets within the Feeder Investment Model (FIM).
- Economic End-of-Life (also known as "Optimal Intervention Time") is used to determine the intervention time of an existing asset, based upon the optimal relationship between the minimum life cycle cost of the new asset to be installed and the existing asset's risk cost. See Exhibit 2B, Section D3, Figure 3, page 8, which is reproduced on page 6 of this response.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ASSOCIATION OF MAJOR POWER CONSUMERS IN ONTARIO

Generally, Toronto Hydro uses these metrics and models as tools and indicators to inform decision-making processes. Planning engineers consider the Useful Life and Economic End-of-Life metrics and use their outputs to inform their exercise of professional judgment in the management of asset risk and system reliability. Financial Useful Life is used to account for Toronto Hydro's rate base. Ultimately, decisions whether to replace assets sooner or later than on the basis of one or more of these indicators are based on a number of considerations that must be taken into account in prudent utility management and investment. These include operating characteristics, execution considerations, customer needs, and service obligations.

The following subsections further explain how these metrics are applied in Toronto Hydro's financial and investment planning policies and processes.

Financial Useful Life

Based upon the conclusions of the independent detailed review of useful lives conducted by Kinectrics (please refer to the 2009 Kinectrics "Useful Life of Assets" report filed in EB-2010-0142 at Exhibit Q1, Tab 2), Toronto Hydro implemented certain changes in accounting estimates related to the manner in which it records and accounts for its property, plant and equipment in accordance with the OEB's reporting standards. The changes in estimates of Financial Useful Lives of assets were reflected in the corresponding depreciation and amortization balances in Toronto Hydro's financial statements effective January 1, 2011, and in Toronto Hydro's last rebasing application (EB-2010-0142). The Financial Useful Lives were within the ranges provided by Kinectrics.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ASSOCIATION OF MAJOR POWER CONSUMERS IN ONTARIO

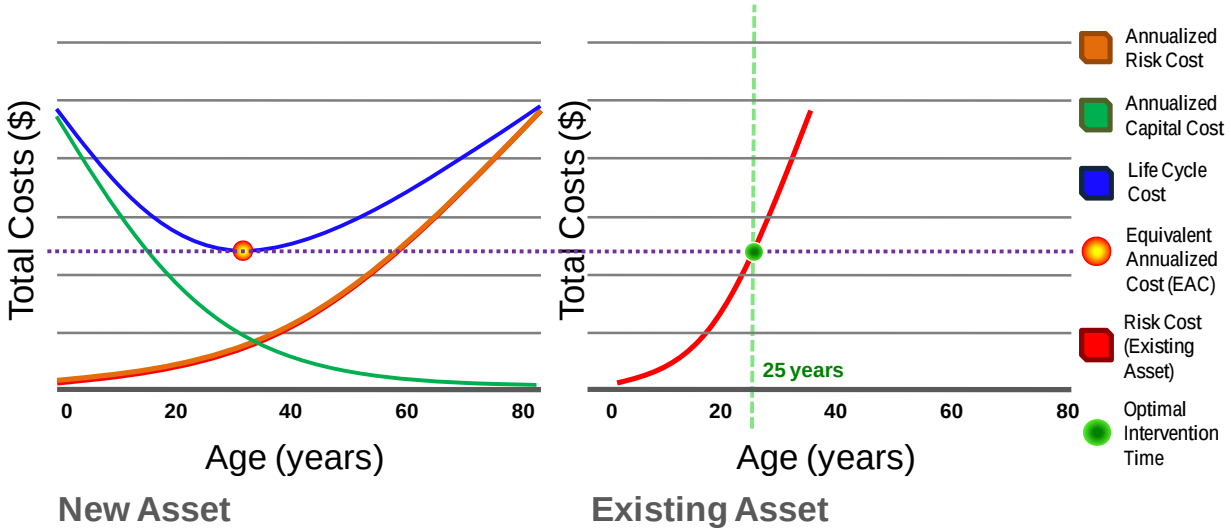
Useful Life

Useful Life values are also derived from the 2009 Kinectrics "Useful Life of Assets" report. As previously explained in the interrogatory response to OEB Board Staff 36 (b), the Useful Life is calculated by identifying the mid-point between the "minimum useful life" and the "maximum useful life" values as defined within the Kinectrics report. Many of the hazard rate distribution functions used to determine the age-based failure probability within the FIM for a given asset have been calibrated using these Useful Life values. These values are also used as part of the Current-State System Analysis (explained in Section D3.1.1.1 of Toronto Hydro's Distribution System Plan) in order to determine the replacement value of assets prior to, approaching or exceeding their useful lives.

Economic End-of-Life

The figure below provides a graphical representation of Economic End-of-Life. On the left side of the figure, the life cycle cost of a new asset (illustrated by the blue curve) is calculated by performing the simple sum of the annualized capital cost (illustrated by the green curve) and the annualized risk cost (illustrated by the orange curve).

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ASSOCIATION OF MAJOR POWER CONSUMERS IN ONTARIO



The annualized capital cost is derived from the cost of replacing the existing asset with the new asset – this cost has been annualized as a yearly cost across the life-cycle of the new asset. The minimum life-cycle cost – also referred to as the Equivalent Annualized Cost (EAC) – will be cross-referenced against the existing asset's risk cost curve – illustrated by the red curve on the right side of the figure – in order to determine the optimal intervention time, also known as the Economic End-of-Life of the existing asset. At this point, it becomes more cost-efficient to replace the existing asset than to continue operating it.

Comparison of Metrics Values

To compare the three metrics, Toronto Hydro has included a table in Appendix A that shows the Financial Useful Life for each of Toronto Hydro's distribution asset classes, along with the Useful Life and Economic End-of-Life for each of these classes where applicable and available. The Economic End-of-Life results are presented as a range of

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ASSOCIATION OF MAJOR POWER CONSUMERS IN ONTARIO

values because these values vary from asset to asset. In contrast, Financial Useful Life and Useful Life values are in each case the same for all assets within a given asset class.

Please note that the Useful Life and Economic End-of-Life results in Appendix A have not been provided for all Financial Useful Life asset classes. Useful Life is given only for the subset of asset classes where this metric is applied within the AM Planning Process. Ranges of Economic End-of-Life values are currently unavailable for certain asset classes because they have not been modeled or there is insufficient data for the purposes of this exercise.

Conclusion

Toronto Hydro's capital needs for the five-year CIR period are demonstrated by the number of assets operating beyond Useful Life and the rate at which existing assets continue to reach the end of Useful Life (i.e., the 26% and 7% figures shown on Slide 8 of Exhibit EC1). The backlog of assets requiring renewal in the 2015-2019 period are already operating well beyond their Economic End-of-Life. As a consequence, within this period, the FIM is a tool to establish the relative priority of program expenditures. As detailed in slide 24 of the Evidence Conference (Exhibit EC1), Toronto Hydro uses a number of decision-support systems to plan investments. The capital plan that Toronto Hydro has proposed is a consequence of engineering judgment based on rigorous asset management processes and tools, assumptions and data points, all of which are informed by, but not solely based on, the metrics and indicators of useful life discussed in this response.

	Asset	USoA Account Number	USoA Account Description	Depreciation Useful Life	Useful Life		Economic End of Life 1		
							Min	Mid	Max
	Poles	1830	Poles, Towers and Fixtures	40 - 50	Poles - Wood, Concrete, Steel	45	3	61	100*
	OH Switch	1835	Overhead Conductors and Devices	30	OH Switch - Load Break	40	2	27	100*
					OH Switch - Disconnect	45	1	32	83
					OH Switch - SCADAMATE	40	2	11	100*
	O/H SMD - 20 Switches	1835	Overhead Conductors and Devices	45	NA		NA	NA	NA
	OH Primary Conductors	1835	Overhead Conductors and Devices	50	OH Primary Conductor	64	NA	NA	NA
	OH Secondary Conductors	1855	Services	50	OH Secondary Conductor	64	NA	NA	NA
	OH Transformers	1850	Line Transformers	30	OH TX	35	1	39	114*
Stations	Power Transformers	1815	Transformer Station Equipment - Normally Primary Above 50 kV	32	Stations - Power TX	44	NA	NA	NA
		1820	Distribution Station Equipment - Normally Primary Below 50 kV	32			NA	NA	NA
	AC Station Service Equip (TS)	1815	Transformer Station Equipment - Normally Primary Above 50 kV	32	NA		NA	NA	NA
	AC Station Service Equip (MS)	1820	Distribution Station Equipment - Normally Primary Below 50 kV	32	NA		NA	NA	NA
	Stations Grounding Transformer	1820	Distribution Station Equipment - Normally Primary Below 50 kV	25 - 30	NA		NA	NA	NA
	Stations - DC Batteries	1820	Distribution Station Equipment - Normally Primary Below 50 kV	10	Stations - DC Batteries	10	NA	NA	NA
	Storage Battery Equipment	1825	Storage Battery Equipment	15	NA		NA	NA	NA
	DC Station Service Battery Charger	1820	Distribution Station Equipment - Normally Primary Below 50 kV	20	NA		NA	NA	NA
	Stations Switchgear	1820	Distribution Station Equipment - Normally Primary Below 50 kV	40	Stations - Switchgear Enclosures	50	NA	NA	NA
	Substation Equipment - Outdoor Breaker	1820	Distribution Station Equipment - Normally Primary Below 50 kV	30	CB - Air Blast	40	NA	NA	NA
					CB - Magnetic Air	43	NA	NA	NA
					CB - SF6	45	NA	NA	NA
					CB - Vacuum	45	NA	NA	NA
					CB - Oil	45	NA	NA	NA
	Transformer Station Equip - Disconnect Switch	1815	Transformer Station Equipment - Normally Primary Above 50 kV	30	NA		NA	NA	NA
	Substation Equipment - Disconnect Switch	1820	Distribution Station Equipment - Normally Primary Below 50 kV	30	NA		NA	NA	NA
	Digital & Numeric Relays	1980	System Supervisory Equipment	20	NA		NA	NA	NA
	Transformer Station Equip - Steel Structure & OH Bus	1815	Transformer Station Equipment - Normally Primary Above 50 kV	35	NA		NA	NA	NA
	Transformer Station Equip - Steel Structure & OH Bus	1820	Distribution Station Equipment - Normally Primary Below 50 kV	35	NA		NA	NA	NA
	UG Primary Cable - PILC	1845	Underground Conductors and Devices	60	UG Primary Cable - PILC	75	31	100	100*
	UG Primary (Direct Buried)	1845	Underground Conductors and Devices	20	UG Primary Cable - DB Jacketed	40	23	49	100
					UG Primary Cable - DB Unjacketed	23	8	36	66
					UG Primary Cable - Conduit, Jacketed	50	21	62	100*

	Asset	USoA Account Number	USoA Account Description	Depreciation Useful Life	Useful Life		Economic End of Life 1		
							Min	Mid	Max
UG	U/G Dist Lines And Feeders - Primary Cable in Duct	1845	Underground Conductors and Devices	40	UG Primary Cable - Conduit, Unjacketed	50	17	52	100*
					UG Primary Cable - Concrete, Unjacketed	50	20	63	100*
					UG Primary Cable - Concrete, Jacketed	50	21	62	100*
	UG Secondary Cable Direct Buried	1845	Underground Conductors and Devices	20	UG Secondary Cable - DB	23	NA	NA	NA
	UG Secondary Services - Direct Buried	1855	Services	20			NA	NA	NA
	UG Secondary Cable - In Duct	1845	Underground Conductors and Devices	40	UG Secondary Cable - Conduit	50	NA	NA	NA
	UG Secondary Services - In Duct	1855	Services	40			NA	NA	NA
	UG Network Transformers	1850	Line Transformers	20	UG Network Units - Fibertop	30	12	47	67
					UG Network Units - Semi-Dust-Type	30	3	44	100*
					UG Network Units - Submersible	30	2	100	100*
	UG Transformers	1850	Line Transformers	30	UG TX - Pad-Mounted	35	3	21	90
					UG TX - Submersible	33	3	21	100*
	Vaults	1840	Underground Conduit	40	Civil - Network Vaults	60	5	70	100*
					Civil - UG Submersible Tx Vault	60	NA	NA	NA
	Vault Roofs	1840	Underground Conduit	20	Civil - Network Vaults Roofs	25	NA	NA	NA
	Vault Switches	1845	Underground Conductors and Devices	30	UG Switch - Minirupter	40	3	32	100*
	UG Switches - Padmount Switchgear	1845	Underground Conductors and Devices	20	UG Switch - PMH	30	7	100	100*
					UG Switch - SF6	40	8	26	100*
					UG Switch - SF6 PAD SCADA	35	10	100	100*
	Civil - Duct Structures	1840	Underground Conduit	30	NA		NA	NA	NA
	Cable Chambers	1840	Underground Conduit	50	Civil - Cable Chambers	65	NA	NA	NA
	Cable Chambers - Roof	1840	Underground Conduit	20	Civil - Cable Chambers Roof	25	NA	NA	NA
	System Supervisory Equipment	1835	System Supervisory Equipment	30	NA		NA	NA	NA
		1980	System Supervisory Equipment	15 - 30	NA		NA	NA	NA
Meters	Residential Energy Meters	1860	Meters	25	Residential Energy Meters	18	NA	NA	NA
	Industrial/Commercial Energy Meters	1860	Meters	25	Industrial/Commercial Energy Meters	18	NA	NA	NA
	Wholesale Energy Meters	1860	Meters	25	Wholesale Energy Meters	18	NA	NA	NA
	Current & Potential Transformer (CT & PT)	1860	Meters	25 - 40	Current & Potential Transformer (CT & PT)	18	NA	NA	NA
	Smart Meters	1860	Meters	15	Smart Meters	18	NA	NA	NA
		1970	Load Management Controls - Customer Premises	10		18	NA	NA	NA

Note 1: In some cases, the Economic End-of-Life results at the minimum range will indicate assets at a very young age that require replacement – this may be due to the manner in which these assets are connected, as a significant amount of customers may experience an outage should those assets fail. In these instances, the FIM could be indicating that it is worthwhile to reconfigure the existing state of assets such that a reduced amount of customers are exposed to an impact of failure. On the maximum end of the range, there are certain assets that have received Economic End-of-Life results of 100 or 114 years of age (marked with asterisks in this table) – in actuality, these Economic End-of-Life results represent the limits of the time domain that is being evaluated within the FIM, and the actual Economic End-of-Life results in these instances may be a higher age beyond these time intervals.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ASSOCIATION OF MAJOR POWER CONSUMERS IN ONTARIO

UNDERTAKING NO. J1.8:

Reference(s):

To reconcile the numbers that appear in the interrogatory table relative to the page number referenced in the PDF, for the five reports

RESPONSE:

The following provides a reconciliation of the Event & Duration Cost values as originally presented in OEB Staff 27 as part of the EB-2012-0064 application. As part of Toronto Hydro's review and analysis of other customer interruption cost ("CIC") valuation studies, outputs from these studies were interpreted and aligned with the architecture of the Feeder Investment Model ("FIM"), which uses an Event Cost and a Duration Cost value. To create this alignment, a number of assumptions – all of which are explained in this response – were applied in order to compare these individual results with Toronto Hydro's CIC values.

Due to the interpretation and approximation required to align the studies' results with the FIM architecture, some anomalies were produced during the calculation process. At the broader level, the process of deriving the Event and Duration Cost was kept consistent as best as possible, but the specific calculations may vary from one study to another, due to the varying underlying assumptions, formatting and nature of the study results. Further discussion is presented at the end of this undertaking within a Post-Analysis Discussion section.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ASSOCIATION OF MAJOR POWER CONSUMERS IN ONTARIO

All values in OEB Staff 27 were presented in U.S. dollars, due to the fact that U.S. and Canadian (CAD) dollars were at par in 2012 – the time this analysis was completed. Furthermore, at least one of the studies in this analysis was already presented in U.S. dollars. It should be noted the the exact currency conversion rates that were applied and used in the original IR response for U.S. dollar conversion are no longer available. As such, a different set of 2012 conversion rates was applied in developing this response, which results in a slight variance with respect to the exact Event and Duration costs derived in the original response (the dollars are the same, but the cents may vary in some cases). The conversion rates used here are from 2012 – the year in which this comparative analysis was first developed and produced. All conversion rates were obtained from OANDA Corporation's official website (http://www.oanda.com/currency/historical-rates/). OANDA Corporation is a financial services provider of currency conversion, online retail currency transfers and foreign exchange information.

STUDY 1: Values Provided for Interruption Cost Netherlands:

Table 1-1: Event & Duration Costs presented in OEB Staff 27

App.	Study Name	Duration Cost ($/kVA) THESL	Event Cost ($/kVA) THESL
A	Interruption Costs Netherlands	$ 8.72	$ 6.58

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ASSOCIATION OF MAJOR POWER CONSUMERS IN ONTARIO

Table 1-1 illustrates the initial values from the "Netherlands" study, converted into Event and Duration Costs respectively.[1] The original values from the study, as found in 2B-AMPCO-14, Appendix A, Page 4, were presented in British Pounds. These are converted to U.S. Dollars by applying the currency conversion rate of 0.6485. The converted values in U.S. Dollars are found in Table 1-2.

Table 1-2: "Netherlands" Study CIC Values Converted to U.S. Dollars

Duration	Commercial	Industrial	Large User
Momentary	$1.53	$9.48	$10.39
1min	$1.57	$9.98	$10.39
20min	$6.00	$22.00	$10.58
1hr	$16.42	$38.95	$11.07
4hr	$60.20	$111.36	$13.66
8hr	$121.28	$185.21	$14.97
24hr	$154.17	$231.89	$20.59

Event Cost derivation from "Netherlands" Study:

As the Event Cost is designed to represent the first period immediately after power interruption, the 1 minute values from the study were interpreted to align to this outage period, since 1 minute traditionally represents the boundary between a momentary and a sustained interruption.

To calculate the Event Cost from this study, the average per kW cost for 1 minute for the Commercial, Industrial and Large User customers was calculated to be $7.31 per kW.

[1] This study is called the "Netherlands" study because it was presented at a conference in the Netherlands. The cost figures are in British Pounds in the original study.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ASSOCIATION OF MAJOR POWER CONSUMERS IN ONTARIO

This value was converted to $ per kVA by using a 0.9 power factor, resulting in an Event Cost value of $6.58 per kVA.

Duration Cost derivation from "Netherlands" Study:

As the Duration Cost is designed to represent the second period which contains on-going disruption to production, sales, office work and entertainment, where customer interruption cost is proportional to the duration of power failure, the per kW costs provided at the hourly intervals of 1, 4 and 8 hours respectively were interpreted to align to this outage period. In this case, the 24 hour interval was not applied in this calculation, since an outage of this duration would be considered an extreme outlier event, and including this outlier event would not be consistent with THESL's CIC methodology.

The individual per kW costs provided at the 1, 4 and 8 hour intervals for Commercial, Industrial and Large User customer classes respectively, are converted into kW-hour costs by dividing the per kW value with the associated hourly interval that the value was recorded at. An average is determined across the customer classes in order to produce a set of Average Hourly Costs for each recorded interval, as presented in Table 1-3.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ASSOCIATION OF MAJOR POWER CONSUMERS IN ONTARIO

Table 1-3: "Netherlands" Study Equivalent Average Hourly Cost across different Customer Classes

Duration	Average Hourly Cost across the Commercial, Industrial and Large User
1hr	$22.15
4hr	$15.44
8hr	$13.39

An average was then calculated from these average hourly costs in order to produce the Duration Cost value of $16.99 per kW-hour. This average value was then converted to a per kVA value using the power factor of 0.9 to derive a final Duration Cost of $15.29 per kVA-hour. As a final step, since the Event Cost could be considered to have been embedded within the Duration Cost value, the Event Cost was subtracted from the Duration Cost value in order to produce a final result of $8.71 per kVA-hour.

STUDY 2: Values Provided for The Use of Customer Outage Cost Surveys in Policy Decision-Making:

Table 2-1: Event & Duration Costs presented in OEB Board Staff 27

App.	Study Name	Duration Cost ($/kVA) THESL	Event Cost ($/kVA) THESL
C	The Use of Customer Outage Cost Surveys in Policy Decision-Making	$ 14.44	$ 35.98

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ASSOCIATION OF MAJOR POWER CONSUMERS IN ONTARIO

Table 2-1 illustrates the initial values from the "Policy Decision-Making" study, converted into Event and Duration Costs respectively. The original values from the study, as found in 2B-AMPCO-14, Appendix B, page 5, were converted from Euro (€) to U.S. Dollars by applying the currency conversion rate of 0.7909. The converted values in U.S. Dollars are found in Table 2-2.

In this case, the "Direct Cost" values were interpreted and approximated for comparison to Toronto Hydro's CIC values, as direct costs best represent the direct tangible impacts that customers will experience during a power interruption. The "Domestic" customer class was interpreted as being a residential customer class based upon the information presented on 2B-AMPCO-14, Appendix B, Page 7, where "Residential" is described as the sector that is aligned to the "Domestic" customer.

Table 2-2: "Policy Decision-Making" Study CIC Values Converted to U.S. Dollars

Duration	Direct Cost	
	Domestic	Business
3min	$10.14	$69.74
1hr	$32.04	$149.17
2hr	$25.81	$105.94
4hr	$19.89	$84.94
8hr	$12.24	$50.59

Event Cost derivation from "Policy Decision-Making" Study:

The Event Cost was derived by using the average per kW cost between the domestic and business customer classes at the three-minute interval, as this time interval was interpreted as being the most aligned to the first period of the outage (the "Event"). This

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ASSOCIATION OF MAJOR POWER CONSUMERS IN ONTARIO

average was calculated as being $39.94 per kW. This value was converted to $ per kVA by using a power factor of 0.9, resulting in the Event Cost of $35.95 per kVA.

Duration Cost derivation from "Policy Decision-Making" Study:

The first step was to subtract the per kW cost at the 3 min interval from the respective per kW costs at the 1, 2, 4 and 8 hour intervals respectively, such that the Event Cost portion was not being duplicated within the Duration Cost value. Furthermore, these values were converted into equivalent hourly figures by dividing each kW-hour value with the respective time interval. The resulting values are shown in Table 2-3.

Table 2-3: "Policy Decision-Making" Study Equivalent Hourly kW-hour values at 1, 2, 4, 8hr Intervals

Duration	Domestic	Business
1hr	$21.90	$79.43
2hr	$7.83	$18.10
4hr	$2.44	$3.80
8hr	$0.26	-$2.39

It should be noted that the eight-hour reading has registered a negative value with the removal of the three-minute interval cost component, as shown in Table 2-3. This anomaly is due to the fact that the valuations for both domestic and business customer classes are not increasing with time, which is typically the case within most other studies.[3] This anomaly is further discussed in the last section of this undertaking

[3] The phenomena of decreasing value is reviewed in the Post-Analysis Discussion section at the end of this response.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ASSOCIATION OF MAJOR POWER CONSUMERS IN ONTARIO

response – "Post-Analysis Discussion". An average per kW value is calculated between the two customer classes and provided in Table 2-4.

Table 2-4: Average "Policy Decision-Making" Study Equivalent Hourly kW-hour values for all Customer Classes at 1, 2, 4, 8hr Intervals

Duration	Average per kW
1hr	$ 50.72
2hr	$ 12.97
4hr	$ 3.12
8hr	-$ 1.07

The average of the per kW values shown in Table 2-4 is calculated in order to produce the result of $16.42 per kW. This value is converted to a $/kW-hour value by using a power factor of 0.9. The final Duration Cost produced is $14.78 per kVA-hour.

STUDY 3: Values Provided for Customer Expectations of DNOs and WTP for Improvements in Service

Table 3-1: Event & Duration Costs presented in OEB Board Staff 27

App.	Study Name	Duration Cost ($/kVA) THESL	Event Cost ($/kVA) THESL
D	Consumer Expectations of DNOs and WTP for Improvements in Service	$ 22.54	$ 8.77

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ASSOCIATION OF MAJOR POWER CONSUMERS IN ONTARIO

Table 3-1 illustrates the initial values from the "DNO" study, converted into Event and Duration Costs respectively. The original values from the study, as found in 2B-AMPCO-14, Appendix C, Page 30 (as marked in the report), Table 29, were converted from British Pounds to U.S. Dollars by applying the average currency conversion rate of 0.649. From this table, a "cut" was understood to be an outage, and only those values marked as "Urban" were accounted for in this analysis, due to the alignment to Toronto Hydro's customer base.

From Table 29, the "Value per unplanned urban cut (reduction in frequency over 5 years from current)" valuation for Urban customers was converted from British Pounds into U.S. Dollars and used to represent the Event Cost, as it best aligned to this period of the outage. From this same table, the "20 minute reduction to average cut" valuation for Urban customers was converted from British Pounds into U.S. Dollars and used to derive the Duration Cost, as this value was interpreted as best aligning to a specific time duration following the outage (the "Duration" period).

These converted values in U.S. Dollars are provided in Table 3-2.

Table 3-2: "DNO" Study CIC Values Converted to U.S. Dollars

Value	Converted cost
Value per unplanned urban cut per customer	$ 29.23
Value per 20 minute reduction to average cut	$ 25.03

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ASSOCIATION OF MAJOR POWER CONSUMERS IN ONTARIO

For the Event Cost the cost associated with the row labelled "Value per unplanned urban cut (reduction in frequency over five years from current)" and the column named "Urban" with subheading "£" was used. This value best represents an outage equivalent to a momentary for consistency between methodologies.

Both of the values provided in Table 3-2 have been interpreted as being measured on a per customer basis. As the other comparative Event and Duration Costs provided in this analysis are measured on a per kVA and kVA-hour basis respectively, these numbers needed to be converted accordingly. In order to convert both of these values to kW, an average of 3 kW/customer was applied. This average was derived by dividing the total estimated system consumption of the distribution network operators (DNO) in the United Kingdom (where the study was performed) of 85GW[4] with the total customer count of 29,816,000[5] of the DNO in the United Kingdom. This yielded an estimated result of 2.85 kW per customer, which was approximated to 3 kW per customer.

Event Cost derivation from "DNO" Study:

The "Value per unplanned urban cut per customer" value from Table 3-2 was converted from the per customer amount to a per kW amount by applying the conversion factor of 3 kW per customer. This resulted in the cost of $9.74 per kW. This cost was then converted from per kW to per KVA by applying a power factor of 0.9, which yielded a final Event Cost of $8.77 per kVA.

[4] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/337649/chapter_5.pdf
[5] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/337649/chapter_5.pdf

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ASSOCIATION OF MAJOR POWER CONSUMERS IN ONTARIO

Duration Cost derivation from "DNO" Study:

The "Value per 20 minute reduction to average cut", as provided in Table 3-2, was used as the basis to calculate the Duration Cost. From the labelling of this variable in the study, it was interpreted that this variable represents an average amount associated to a 20 minute reduction of the "Duration" period of the outage. Therefore, it was interpreted that the Event period of the outage is not included in this value and therefore an Event Cost would not need to be subtracted from this amount. Furthermore, it is assumed that because this is an average amount per 20 minutes of "Duration" period, it is a value that will remain continuous for subsequent 20 minute periods.

Based upon the above assumptions, this variable is first converted from the current 20 minute period to a full 1 hour period, by multiplying this variable by 3 such that three 20 minute periods are considered in succession (adding up to a 60 minute value. The resulting customer cost per hour in US dollars is $75.09. This value was then converted into a kW-hour value, by using the 3 kW per customer conversion factor. The resulting value is $25.03 kW per hour. Finally, this result was converted from a per kW value to a per kVA value, using the 0.9 power factor. This resulted in the produced Duration Cost of $22.52 per kVA-hour.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ASSOCIATION OF MAJOR POWER CONSUMERS IN ONTARIO

STUDY 4: Values Provided for Economic Valuation of Electrical Service Reliability

Table 4-1: Event & Duration Costs presented in OEB Board Staff 27

App.	Study Name	Duration Cost ($/kVA) THESL	Event Cost ($/kVA) THESL
E	Economic Valuation of Electrical Service Reliability	$ 17.63	$ 86.65

Table 4-1 illustrates the initial values from the "Economic Valuation" study, converted into Event and Duration Costs respectively. The original values from the study, as found in 2B-AMPCO-14, Appendix D, Page 9, were converted from Euro (€) to U.S. Dollars by applying the currency conversion rate of 0.7909 as referenced previously. The "Household" customer class was interpreted as being a residential customer class. The converted values in U.S. Dollars are found in Table 4-2.

Table 4-2: Event & Duration Costs in U.S currency

Duration	Household	Company
3 min	$34.52	$157.85
1 hr	$92.93	$257.85
4 hr	$68.38	$125.87
12 hr	$55.28	$65.38

Event Cost derivation from "Economic Valuation" Study:

The Event Cost was derived by using the average per kW cost between the Household and Company customer classes at the 3 minute interval, as this time interval was

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ASSOCIATION OF MAJOR POWER CONSUMERS IN ONTARIO

interpreted as being the most aligned to the first period of the outage (the "Event"). This average was calculated as being $96.18 per kW.

This value was converted from a per kW to a per kVA value by applying a power factor of 0.9. This resulted in the production of an Event Cost value of $86.56 per kVA.

Duration Cost derivation from "Economic Valuation" Study:

As this study provided results in kWh as opposed to kW, it was interpreted that in order to produce an equivalent Duration Cost, all costs, including the cost at the 3 minute interval, would need to be included as part of the average calculation further described below – however, the "Event" period portion of the costs would still be individually subtracted from each of the time intervals. As part of this calculation, each of the hourly interval values from 1 hour and beyond were converted into equivalent hourly figures by dividing each kW-hour value with the respective time interval. These resulting values are shown in Table 4-3.

Table 4-3: "Economic Valuation" Study kW-hour values at 3 min, 1, 4, 8hr Intervals (1 to 8hr Interval Values in Equivalent Hours)

Duration	Household	Company
3 min	$ 0	$ 0
1 hr	$ 58.47	$ 100.00
4 hr	$ 8.47	-$ 7.99
12 hr	$ 1.73	-$ 7.11

As these values were presented from the study in kWh, as opposed to kW, it was interpreted that the average would need to be calculated across the entire time range of

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ASSOCIATION OF MAJOR POWER CONSUMERS IN ONTARIO

the analysis, which included the three-minute interval value. Therefore, even though the three-minute value is calculated as $0 following the subtraction of the "Event" period costs, it was still included as a data point, along with the other figures in Table 4-3, as part of the arithmetic mean calculation. The results of this calculation are presented in Table 4-4.

It can also be noted that similar to the "Policy Decision-Making" study, there are negative values produced for the "Company" classification at the four- and eight-hour intervals respectively following the removal of the "Event" period portion of cost. Again, this anomaly is due to the fact that the valuations for the Company class are not increasing with time, resulting in negative values further in the time period. This is further discussed in the "Post-Analysis Discussion" of this undertaking.

Table 4-4: Average Duration Costs in U.S currency per kW

Household	Company
$ 17.15	$ 21.22

An average was taken of the values presented in Table 4-4, resulting in a result of $19.19 per kW-hour. This result was converted to a kVA-hour value by applying a power factor of 0.9, resulting in a Duration Cost value of $17.27 per kVA-hour.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ASSOCIATION OF MAJOR POWER CONSUMERS IN ONTARIO

STUDY 5: Values Provided for How to Estimate the Value of Service Reliability Improvements

Table 5-1: Event & Duration Costs presented in OEB Board Staff 27

App.	Study Name	Duration Cost ($/kVA) THESL	Event Cost ($/kVA) THESL
F	How to Estimate the Value of Service Reliability Improvements	$ 50.94	$ 42.93

Table 5-1 illustrates the initial values from the "Value of Service Reliability Improvements" study, converted into Event and Duration Costs respectively. The original values from the study, as found in 2B-AMPCO-14, Appendix E, Page 2, Table 1, were already provided in U.S. dollars and therefore no currency conversion was necessary.

For the Event Cost and Duration Cost calculations in the following sections the "Cost per Average kW" of each customer class subcategory was used in order to align to studies analyzed thus far using values of kW as opposed to kWh. Furthermore, all three customer classes, including "Residential", "Small C&I" and "Medium & Large C&I" were considered in the calculation of the Event and Duration Costs respectively.

Event Cost derivation from "Value of Service Reliability Improvements" Study:
The Event Cost was derived by using the average per kW cost between the "Medium & Large C&I", "Small C&I" and "Residential" customer classes at the momentary outage,

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ASSOCIATION OF MAJOR POWER CONSUMERS IN ONTARIO

as the momentary was interpreted as being the most aligned to the first period of the outage (the "Event"). These values are provided in Table 5-2.

Table 5-2: "Value of Service Reliability Improvements" Study Momentary kW values for all Customer Classes

Duration	Medium & Large C&I	Small C&I	Residential
Momentary	$ 8.00	$ 133.70	$1.40

From these three values, the calculated average was $47.70 per kW. This value was converted to a $ per kVA value by using a power factor of 0.9, resulting in the Event Cost of $42.93 per kVA.

Duration Cost derivation from "Value of Service Reliability Improvements" Study:
It should be noted that the original Duration Cost calculation as provided in OEB Staff 27 was calculated in a manner that only included the one-hour time interval as part of the kW-hour derivation. As per this undertaking, this value has been corrected to use the 1, 4 and 8 hour intervals respectively as has been performed with the other studies.

Table 5-3 provides the kW-hour values at the 1, 4, and 8 hour intervals for residential, small C&I and medium & large C&I customers respectively. An average was taken of these values were used in order to derive a Duration Cost value presented in Table 5-4.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ASSOCIATION OF MAJOR POWER CONSUMERS IN ONTARIO

Table 5-3: "Value of Service Reliability Improvements" Study kW-hour values at 1, 4, and 8 hr Intervals for all Customer Classes

Duration	Medium & Large C&I	Small C&I	Residential
1hr	$ 15.30	$ 282.00	$ 2.20
4hr	$ 13.03	$ 298.95	$ 4.90
8hr	$ 10.63	$ 296.08	$ 0.86

Table 5-4: "Value of Service Reliability Improvements" Study kW-hour values at 1, 4, and 8 hr Intervals for all Customer Classes

Duration	Average across all Classes
1hr	$ 99.83
4hr	$ 104.40
8hr	$ 102.52

As was performed with other studies, the portion of cost associated with the "Event" period was subtracted from the average of all values in the table above, resulting in a Duration Cost value of $59.32 per kW-hour.

Finally, this value was converted to a per kVA value by using a power factor of 0.9, thereby producing a final Duration Cost of $53.39 per kVA-hour.

Post-Analysis Discussion

As noted at the beginning of this undertaking response, this exercise required interpretation and approximation of results from these individual studies to align them with the architecture used in the FIM. The assumptions used were consistently applied,

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ASSOCIATION OF MAJOR POWER CONSUMERS IN ONTARIO

but the results were impacted by the availability of underlying information and assumptions for each study – which was typically quite limited.

The negative results that are produced during the calculation of the Duration Cost for both the "Policy Decision-Making" and "Economic Valuation" studies represent good examples of unknown underlying assumptions. In both cases, the study values fluctuate over the time horizon and do not increase as expected. This suggests that the values presented within these studies may have been non-cumulative in nature, and therefore there may have been no need to subtract the Event portion of cost from the Duration Cost value. However, without the knowing the underlying assumptions, and with other studies that do clearly contain increasing valuations as time progresses (e.g., "Netherlands", "Value of Service Reliability Improvements"), a decision was made to apply the same comparative process to produce values for all studies, including subtracting the "Event" portion of the cost consistently in every study from the "Duration" period.

Alternatively, the results of the "Policy Decision-Making" study can be revisited and re-calculated, the Event and Duration Costs for the Residential customer class as noted in Table 6-1. As per this alternative calculation, it is now assumed that the numbers presented for the various intervals are non-cumulative, and therefore the Event portion of cost is no longer subtracted from the Duration Cost value.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ASSOCIATION OF MAJOR POWER CONSUMERS IN ONTARIO

Table 6-1: Alternatively-Calculated Residential-Class Event & Duration Costs for "Policy Decision-Making" Study

Index	Study Name	Residential-Class Duration Cost ($/kVA) THESL	Residential-Class Event Cost ($/kVA) THESL
C	The Use of Customer Outage Cost Surveys in Policy Decision-Making	$ 19.43	$ 21.51

As part of an effort to continually monitor Toronto Hydro's CIC alignment to the results produced for other utilities, an additional comparison has been produced as part of this undertaking. This comparison is for the 2012 Pacific Gas & Electric (PG&E) CIC valuation study, which became available after the original EB 2012-0064 IR response (OEB Staff 27).

ADDITIONAL STUDY 6: Pacific Gas & Electric Company's Value of Service Study

The following results were drawn from Table 1-3 on page 8 of the study. The agricultural customer class was excluded for purposes of comparing customer classes in Toronto – where no agricultural customers exist. Both the Bay and Non-Bay areas were considered as they are comparable to Toronto's core and surrounding areas. Table 6-2 provides a breakdown of the Value of Service values in $ per kW.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ASSOCIATION OF MAJOR POWER CONSUMERS IN ONTARIO

Table 6-2: Value of Service costs expressed in $/kW as drawn from PG&E

Duration	Residential	SMB (small & med. Business)	Large Business
5 minutes	$9.75	$43.30	$319.30
1 hour	$14.86	$205.20	$327.40
4 hour	$21.03	$540.10	$436.90
8 hour	$28.61	$1,136.40	$449.70

Event Cost derivation from "PG&E" Study:

The Event Cost was derived by using the average per kW cost between the three customer classes at the 5 minute interval, as this time interval was interpreted as being the most aligned to the first period of the outage (the "Event"). This average was calculated as being $124.12 per kW. This value was then converted to a per-kVA value by applying a power factor of 0.9, thereby producing an Event Cost of $111.71 per kVA.

Duration Cost derivation from "PG&E" Study:

As was the case with the "Netherlands" study, the 24 hour interval value was not applied in this calculation, since an outage of this duration would be considered an extreme outlier, and by this point in time, customers are more likely to take action to avoid those activities involving electricity, such that any further disruption can be minimized.

As was performed with all other studies, the costs associated with the "Event" period of the outage were subtracted from each of the individual customer classes at the 1, 4, and 8 hour time intervals. Also as was performed with other studies, these values were all converted into equivalent hourly figures by dividing each kW-hour value with the respective time interval, as noted in Table 6-3.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ASSOCIATION OF MAJOR POWER CONSUMERS IN ONTARIO

From the individual per kW costs provided at the 1 hour, 4 hour and 8 hour intervals for Residential, SMB, and Large Business customer classes respectively, the difference between the value presented and the five-minute (event cost) was taken for all customer classes at these intervals respectively, as noted in Table 6-3 below.

Table 6-3: Equivalent Hourly $ per kW Values for 1, 4, 8hr Time Intervals

Duration	Residential	SMB (small & med. Business)	Large Business
1 hour	$5.11	$161.90	$8.10
4 hour	$2.82	$124.20	$29.40
8 hour	2.36	$136.64	$16.30

The average hourly $ per kW was then computed for each customer class. The result is found in Table 6-4.

Table 6-4: Average Hourly Duration $ per kW

Residential	SMB (small & med. Business)	Large Business
$3.43	$140.91	$17.93

An average value of $54.09 per kW was produced across these customer classes. This was converted to a per kVA value by applying a 0.9 power factor, resulting in a Duration Cost of $48.68 per kVA.

From this analysis, the final Event and Duration Cost values are detailed in Table 6-5.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ASSOCIATION OF MAJOR POWER CONSUMERS IN ONTARIO

Index	Study Name	Duration Cost ($/kVA) THESL	Event Cost ($/kVA) THESL
G	Pacific Gas & Electric Company's Value of Service Study	$ 48.68	$ 111.71

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ASSOCIATION OF MAJOR POWER CONSUMERS IN ONTARIO

UNDERTAKING NO. J1.9:

Reference(s):

To file the BIS report

RESPONSE:

The BIS report has been filed at Appendix A to this response.

Toronto Hydro-Electric System Limited
EB-2014-0116
Technical Conference
Schedule J1.9
Appendix A
Filed: 2014 Nov 24
(17 pages)

BIS CONSULTING, LLC

Date May 3, 2012

From BIS Consulting

To Amanda Klein
Senior Regulatory Counsel, Toronto Hydro

Regarding Toronto Hydro's current asset management practices related to aging infrastructure; comparison with industry

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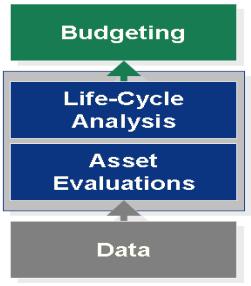
A common challenge at virtually all regulated electric utilities is communicating the need for spending on replacement or rehabilitation of aging assets in a way that resonates with executives and regulators. A great deal of institutional knowledge and technical data are available at the technical, engineering level, but this information does not automatically translate into spending needs.

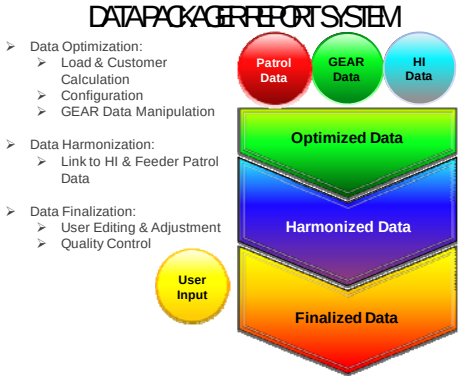
Planning for replacement and rehabilitation is a two-step process, bridging the gap between engineering-level data and the budget:

- Step 1: **Asset Evaluations** – What have we got? What condition is it in relative to end of life and how critical is it?
- Step 2: **Life-cycle Value Analysis** – What interventions can be taken to mitigate risk? Are they justified? What is the right long-range spending plan?



At best-practice utilities, life-cycle analysis is used to quantify the fundamental trade-off between capital spending and marginal cost, which comprises spending on maintenance as well as risk, including cost to customers from outages and other effects of failures of aging assets. Toronto Hydro (THESL) has a well-developed asset management program for optimizing spending on replacement of aging assets and prioritizing among competing programs in case of resource limitations. The outputs of this process, that is projects whose benefits in terms of avoided risk are expected to exceed their costs, are inputs to Toronto Hydro's budget process, which includes project prioritization and the rate filing itself.

This document is a comparison of THESL's practices in this area relative to their peer utilities'.



Data Collection, Storage, and Access

Normal industry practice

All utilities have information that is collected and stored by different groups for different purposes. The information may be in text, numerical, or data format and may be stored on paper, written text stored in an electronic data base, or in spread sheets or data bases in various modules of programs such as SAP. Because this information

is gathered by multiple groups for different purposes it is typical that much of the information needed to establish consistent asset management processes is difficult to retrieve and make use of.

Toronto Hydro practice
The asset management group at THESL has good access to relevant data. When the Feeder Investment Model (FIM) was developed, the data sources were hard-linked to the model through the Data-Packager Report System (DPRS), which retrieves data from line patrols, GEAR, and ACA and passes it to FIM with a minimum of manual intervention. THESL is continuing to develop DPRS, including improvement of the graphical interface.

There are utilities with more developed data-management systems than THESL. However, they relate more to simple data storage and retrieval rather than decision-making as part of asset management. THESL is ahead of its peers in linking its asset data to its aging infrastructure management process. Because of this, and the ongoing progress made in improving data management and integration, we conclude that THESL is at or near the cutting edge of the industry in this area.

Comments, gaps
THESL has a plan in place for continued improvement of its data management. This will be important for ensuring the long-term survival of the process as data ages and as personnel who developed the process move on. We recommend moving forward with this plan.

Definitions of Asset Classes; Inventory / Registry

Normal industry practice
Most utilities maintain inventories of assets for accounting purposes. These data may or may not be directly usable for asset class definitions but typically the necessary information is available. Some utilities have a poor grasp of their asset inventories, especially when it relates to equipment installed many years ago, such as underground cable, or assets that may have been moved from one location to another.

Toronto Hydro practice
THESL has good demographic data, including installation date, for all major asset classes. This includes underground cable, which is a particularly important asset class due to its perceived risk and large capital replacement program. THESL is at or above industry best practice in this area.

Comments, gaps
None.

Condition Assessment

Normal industry practice
Most utilities do not assess the condition of their equipment in a formal or consistent way. After normal maintenance is carried out, the utility documents that the asset is in good condition “as left”. With this approach, all equipment appears to be in “good”

condition and the basis for replacement or refurbishment becomes subjective or, at best, age based.

For some assets, notably power transformers and wood poles, data indicating condition relative to end of life are often collected, although the link to replacement planning is usually subjective and ad hoc. For most assets the data that are collected relate much more to maintenance and the need for maintenance rather than how close the asset is to end of life (i.e., major failure).

Toronto Hydro practice
Toronto Hydro has a well developed health indexing program (ACA), which defines the way in which condition relative to end of life is to be assessed for each asset class. These formulations were recently updated. The completeness of required data varies by asset class depending on what has been collected to-date. But THESL has made a commitment to collect the best data regardless of whether it was collected in the past or they are just starting. This means that the completeness of the data will improve over time.

THESL has integrated its health indices into FIM, which is the proper approach. I.e., health index is important because it is a measure of probability of failure; it is not necessarily a justification for replacement on its own.

The ACA program at THESL is leading-edge for the industry, particularly for distribution lines assets which are often difficult to assess.

Comments, gaps
We recommend continued collection of data needed to support ACA. We also recommend calculating the correlations between health index and failure probability as these data become available over time. As the ACA program matures it will be possible to track the failure rates and possibly maintenance cost of assets in terms of health index (see discussion of Failure Probability below).

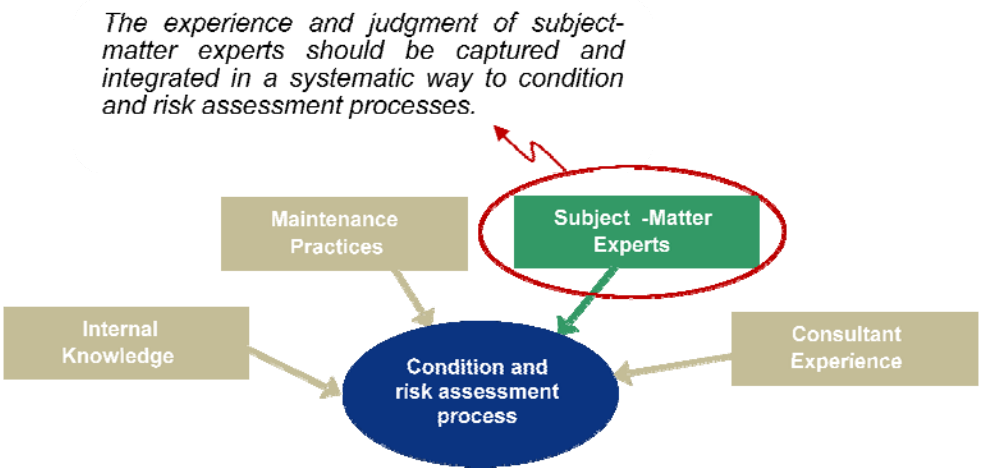
Use of Subject Matter Experts (SME)

Normal industry practice
Many large utilities identify specialists or “subject-matter experts” within their company to provide advice and technical input related to the decision making process. In some cases these experts become part of the asset management group. Smaller utilities, without access to such experts in-house, join industry information exchange groups (such as CEA or EPRI) to determine what others are doing regarding certain technical issues and/or retain consulting companies to provide specific expertise.

Toronto Hydro practice
Toronto Hydro has done an exceptional job of leveraging the tacit knowledge of its internal subject-matter experts in developing its asset management tools. During development of FIM, one or more SMEs were identified for each asset class, and they met regularly with the development team to provide input on key issues such as health, failure probability, failure scenarios (i.e., consequences), and intervention strategies. This approach has helped to foster buy-in throughout the utility and has improved the accuracy of the inputs and assumptions for ACA and FIM. In addition to this, THESL

has brought in outside experts to work as part of their team at key stages of development.

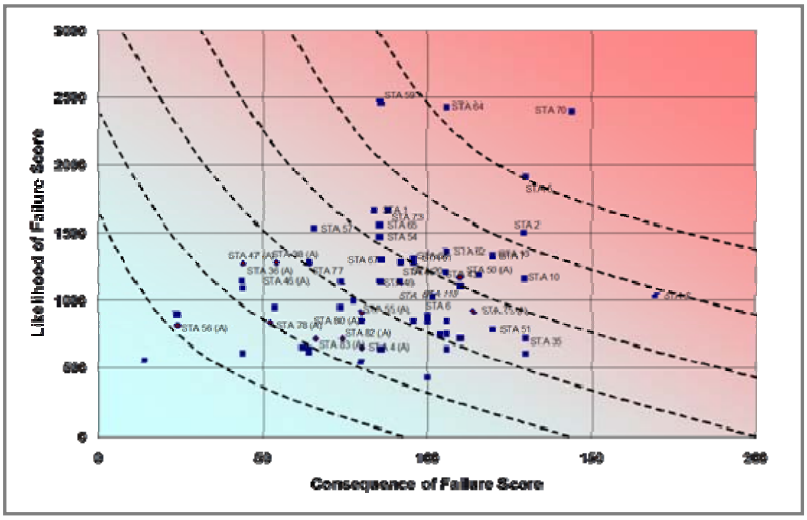
The use of subject-matter experts at THESL is industry best-practice.



Comments, gaps
None.

Risk Assessment

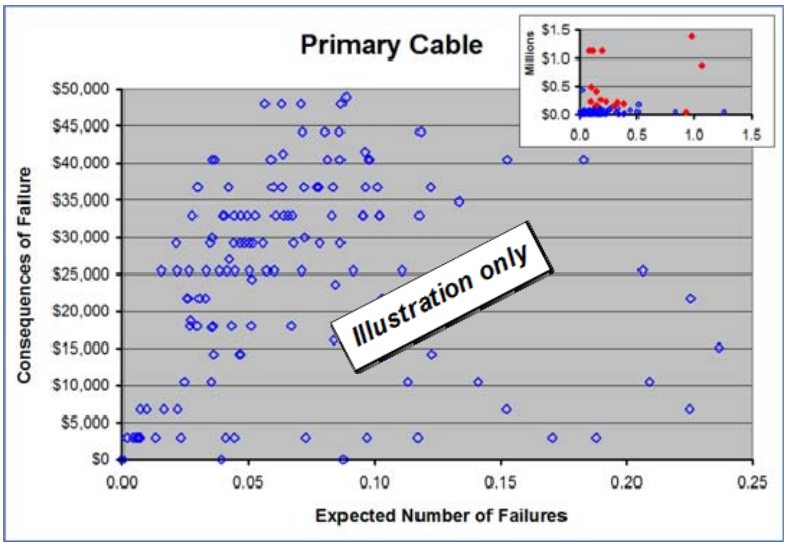
Normal industry practice
The most common approach to risk assessment as part of aging infrastructure is a qualitative matrix, documenting subjective estimates of probability and consequences of failure within an asset class. Assets will be identified as high risk based on where they fall in the matrix. Those toward the upper right, i.e., high risk assets, are designated as the highest priority for replacement.



A typical risk matrix, plotting each asset in a given class in terms of a relative measure of probability (X-axis) and consequences (Y-axis) of failure. High risk assets tend toward the upper right corner.

The difficulties with this approach are twofold. First, although the risk matrix ranks the assets by risk, it does not indicate how many should be replaced and how many should be left in service. For example, it is possible that the highest-risk asset should not be removed from service. Second, it is very difficult to compare across asset classes to determine, for example, whether the highest risk transformer should be prioritized above the highest risk breaker.

Toronto Hydro practice
THESL assesses risk in actual cost terms, using concrete failure scenarios in which probability of failure is defined as a true probability and consequences of failure are quantified in dollars. This solves both of the problems identified above: It is clear which assets are at end of life and which are not, and risk is quantified in consistent terms for all assets so they can be compared. This is the best-practice approach to risk assessment.



Sample risk matrix from Toronto Hydro's Feeder Investment Model. Assets are plotted according to actual, not relative, measures of probability of failure and consequence cost, which includes implicit cost to customers. Assets at end of life are highlighted in red.

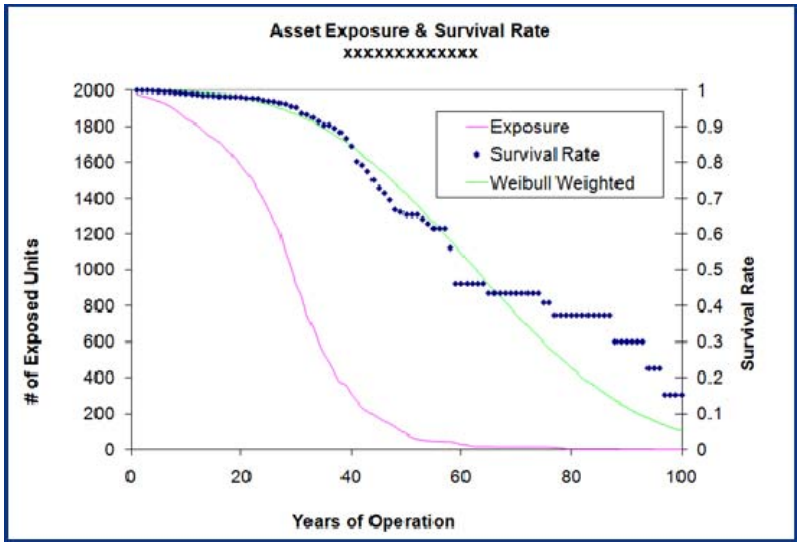
Comments, gaps
None.

Failure Probability

Industry normal practice
There are generally two methods used by THESL's peer group to describe the probability of failure for aging assets.

- Relative assessments, e.g., *high, medium, low*; or *rare, possible, nearly certain*. These are often developed in-house.
- Failure probability correlations with age or condition, often purchased from consultants or developed through professional organizations like ITOMS.

The perception that a group of assets is failing at an increasing rate is often the basis for a proactive replacement program. A typical example of this is direct-buried cable, which many utilities are replacing or injecting based on perceived failure probability.



This figure shows an example of an industry failure curve for a particular asset class. Typically the analyst will correlate failure data from multiple participating utilities and perform a regression calculation to determine the hazard rate.

Toronto Hydro practice
THESL estimates failure probability with respect to age based on historical failure data, if available, or subject-matter expertise otherwise. THESL has created failure probability curves (also known as hazard curves) for each asset class, which define the annual probability of failure as a function of age, consistent with the failure scenarios, in a failure probability study, which summarizes available failure data, fitted failure probability curves, and third party estimates of expected service life. The methodologies used to generate the failure curves based on this data have been reviewed and validated. Furthermore, THESL has begun collecting failure data more aggressively so the curves can be improved over time.

In addition to correlating failure with age, FIM includes a correlation with health. Because the ACA program is relatively new and not much data is available, it is not yet possible to do a rigorous statistical assessment. At present, THESL uses a single correlation between health index and failure probability, which is based on a small amount of data and the experts' assumptions, built into the interpretation of health index results.

In both of these areas, THESL is well ahead of most utilities in estimating failure probability.

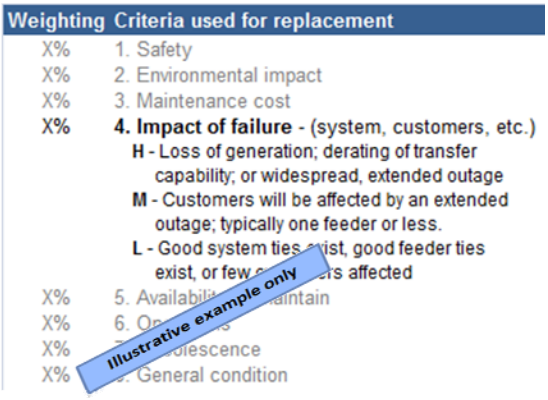
Comments, gaps
We recommend THESL consider sharing failure data with other utilities to jump start the process of improving failure probability estimates, especially with respect to health. This could be accomplished through an organization such as CEA or EPRI, or informally.

Asset Criticality, Consequences of Failure

Normal industry practice
Normal industry practice for managing aging infrastructure may or may not include asset criticality in an explicit way. Where criticality is addressed, the most common approach is to include it as one weighted parameter in an overall replacement priority score.

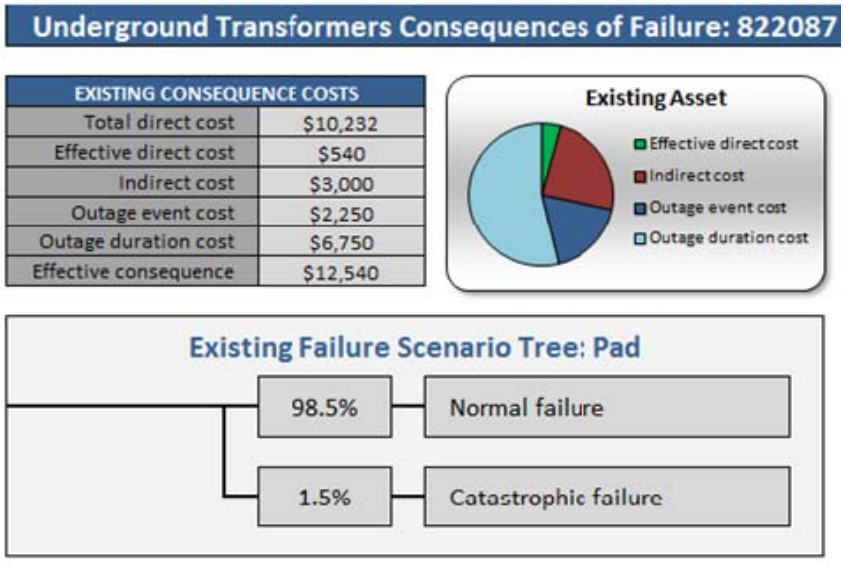
Where criticality is not explicitly addressed, the utility may use subjective perception of criticality as a "tie-breaker." For example; if planners would like to replace multiple breakers but have enough money for only one, they will opt to do the breaker that is part of a critical backbone first.

A typical use of asset criticality in a weighted replacement priority formulation.



Toronto Hydro practice

THESL has implemented an approach to quantifying consequence costs based on failure scenarios. The subject-matter experts define the range of failure scenarios based on their experience and historical data where available. For each scenario the cost is quantified based on the expected effect on customers (i.e., Customer Interruptions and Customer Minutes of Outage) and the direct cost for repair or replacement of failed equipment. This sophisticated approach represents cutting-edge practice for the industry, and it supports consistent, robust assessment of the priority of one asset or asset class over another.



Sample failure scenario tree from Toronto Hydro's FIM. Multiple failure scenarios are postulated, and consequence costs are quantified according to the expected direct costs and impact to customers

Comments, gaps

In our experience, most utilities use actual customer counts by class (i.e., residential, commercial, industrial), rather than load or number of meters, as the basis for calculating

the cost of an outage. Although load is a reasonable stand-in for customer counts, and it has the advantage of weighting large customers more heavily, actual customer count may help make the connection between the aging infrastructure program and the ongoing reliability planning effort, which is driven by SAIDI and SAIFI metrics. Customer counts may also facilitate improving estimates of CI and CMO costs over time.

We recommend continual review and improvement of the failure scenarios as data become available. The work THESL has done to quantify the relative probabilities of scenarios (e.g., different types of circuit breaker failure) is excellent and should be extended to all assets if possible.

Determining End of Life

Industry normal practice

In our experience, most utilities determine end of life for aging infrastructure in an informal way, relying heavily on the subjective, non-quantitative assessments of technical personnel. Business cases, benefit/cost analyses, and quantitative analysis are rare. There are generally two difficulties utilities face: 1) making the case to regulatory bodies or internal boards that spending to replace infrastructure that has not yet failed is justified; and 2) protecting funds targeted for aging infrastructure from being "prioritized out" of the final budget. There are three commonly used approaches to address these difficulties

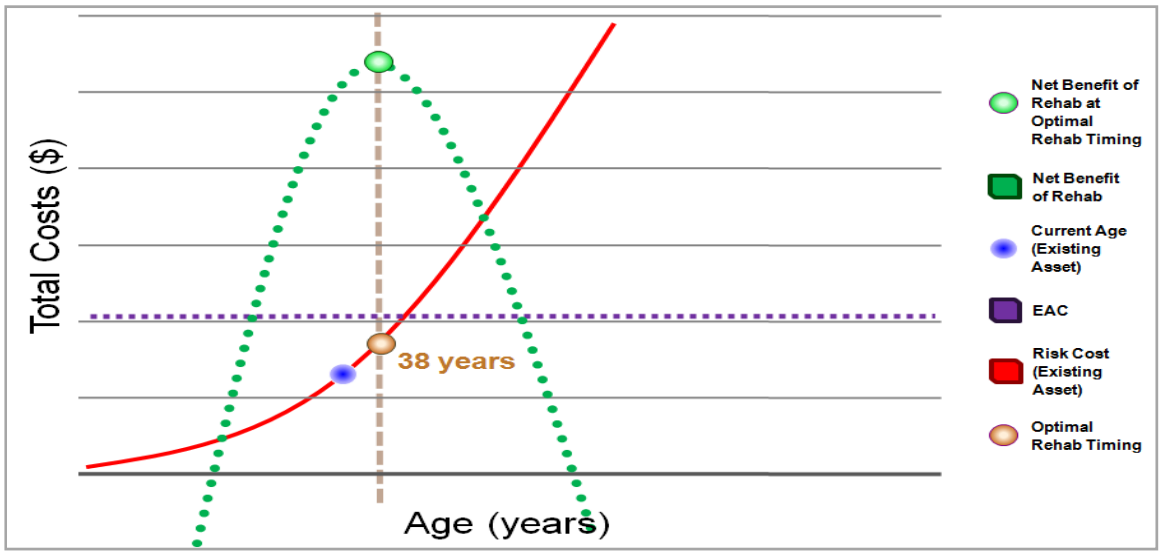
- **Prudent management argument –** This is the most common means; it is generally based on age alone or age supplemented by condition. The technical experts at the utility argue that, since the assets can't last forever, surely some must be replaced each year to prevent a "bow wave" (i.e., a significant impending increase in spending needed to manage aging assets) of future spending and unreliability.
- **One-time justification to replace an entire asset class –** This is most common when technology or design standard change. The utility argues for removing the obsolete infrastructure. This is common for direct-buried cable and air-blast circuit breakers.
- **Safety justification –** An ongoing replacement program can sometimes be implemented if the argument can be made that it is driven by safety. (Sometimes environmental or regulatory drivers are treated this way, too.) For example, many utilities replace wood poles very aggressively for safety reasons.

Toronto Hydro practice

Notwithstanding the reasonability of the approaches noted above, THESL's approach to determining end of life for aging assets is cutting-edge utility practice. The FIM optimizes the trade-off between the cost due to risk of failure as assets age and the benefit of delaying expenditures. This results in a minimum life-cycle cost strategy on an asset-by-asset basis.

The graph below is an example of how this computation is executed. As the existing asset ages, its risk of failure (red line) increases. When it reaches the life-cycle cost of a replacement asset (purple dashed line) it is cheaper to replace than to continue operating and face high risk of failure. In addition, the benefit of refurbishment (green dotted curve) shows the net benefit of refurbishment as a function of age. This

calculation determines the optimal strategy for this particular asset, and is repeated for every asset in the population. The results will vary depending on type, condition, and consequence of failure.



Comments, gaps
None.

Business Case

Industry normal practice

There is a wide range of industry practice with respect to preparing business cases. At one end of the spectrum, the approach generally comprises the following.

- Quantification of direct costs: capital and possibly avoided O&M.
- Customer effects described but not expressed in dollars.
- Often includes a worst-case scenario description of what might happen if the project is rejected.

The outcome of this is a summary of the benefits and costs of a project, but does not result in a true cost/benefit such as NPV.

A more advanced asset management approach consists of the following.

- Explicit risk assessment, addressing both the project itself and the base case, which is usually do-nothing.
- Includes a value model or other means of quantifying and dollarizing customer effects.
- Decisions are based on maximizing return on investment from the rate-payers' (i.e., customers') perspective.

Toronto Hydro practice
THESL is among the most advanced distribution utilities we have seen in terms of using business cases to support spending programs for aging infrastructure. The outputs of the FIM are integrated with other costs, such as outages due to non-asset causes, to evaluate complex projects, such as conversion from overhead to underground, or policy decisions. THESL has an advanced Project Creation Process, which documents a standard methodology for this work.

An excellent example is the business case THESL executed to determine whether it was cost effective to replace secondary services as part of a cable replacement program. They looked at representative situations and determined which cases merited replacement and which should be left as-is. This is the only example of this level of analysis we know of.

Comments, gaps
We recommend expansion of the business case process to include capacity planning.

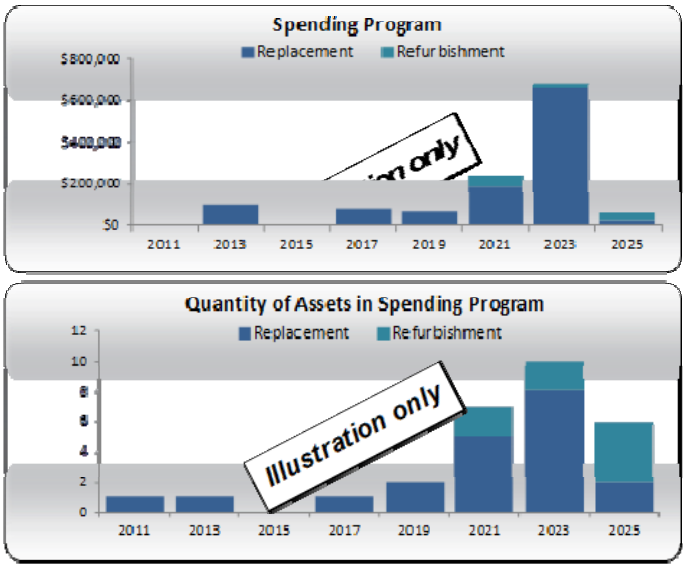
Long-Range Projections

Industry normal practice
All utilities are interested in a long-range forecast of spending requirements. There is particular interest in a forecast of spending on aging infrastructure, due to the concern that aging and degrading populations will begin to fail at high rates, affecting reliability and increasing risk.

Most utilities' forecasts are based on a "mirror" of the installation history, shifted out based on the assumed service life of the asset in question. For example, if you installed three power transformers in 1965, and if power transformers have a service life of 50 years (a typical number), then your long range plan should include replacement of three transformers in 2015. [Note that this is only the projection of spending. Actual spending is almost always far below this level.]

Another common approach is to determine the replacement rate required to hold constant the average age or total failure rate of the asset class.

Toronto Hydro practice
Toronto's FIM produces a long-range projection of spending for capital replacements as well as unplanned replacements due to failure for all major asset classes. This is leading-edge practice for the industry.



Sample long-range projections of spending from the FIM. These graphs show the optimal spending for replacement and refurbishment of a subset of underground cable over time.

Comments, gaps

We recommend that THESL share the long-range projections with OEB and other stakeholders with the intent that this will help smooth spending over time and avoid shocks to the replacement programs.

Prioritization

Industry normal practice

The most common approach to prioritization among peer utilities is a "bucket" approach, whereby proposed spending is assigned to one of several categories. The categories reflect drivers recognized by the utility and its regulator. Projects are approved and budgeted according to the perceived importance of the buckets. So, for example, projects in asafety bucket are prioritized ahead of projects in a growth driven bucket. There are several problems with this approach.

- By the time you get down to "reliability" and "risk management," where most of the aging infrastructure projects are, there may not be much money left. These projects are easily bumped.
- Although safety or regulatory requirements may be very important, they are not infinitely more important than everything else. At some point all utilities make the decision that the next increment of safety or compliance is not worth the opportunity cost. This approach does not reflect that fact.
- Many projects have benefits in more than one bucket. For example, adding a new substation may be a growth-driven project, but it will also have risk management benefits.

Toronto Hydro practice

Toronto Hydro's FIM and business case models result in explicit metrics of NPV and benefit/cost ratio, which support prioritization across asset programs. In addition, FIM is tied to the value model used for prioritizing spending across the entire utility (i.e., not only aging infrastructure spending), which means the results of FIM are consistent with

the overall strategic objectives of the utility and can readily be compared with other spending options.

Comments, gaps
THESL is in the process of improving its value model. As this work progresses, the drivers and values established should be imported into FIM to ensure consistency.

Past recommendations and status

Past reviews of asset management practices at THESL have resulted in recommendations. The following section describes the steps taken by THESL to address these recommendations.

Develop a regulatory strategy
Recommendation: Work in coordination between AM and regulatory group, taking proactive measures to inform OEB staff of the approach and expected results. The asset management group should establish a direct, continual, and informal dialog with OEB staff. The purposes of this dialog are to develop confidence at OEB in the methods and strategies pursued at THESL, to solicit input from OEB that can be incorporated into THESL's strategic objectives ahead of any rate filing, and to facilitate scenarios analysis and other investigations.

Steps taken to-date: THESL has not yet begun an explicit regulatory strategy, however the asset management processes described in this report and elsewhere are used by THESL in developing its proposed budget and responding to interveners. We expect that over time, the consistent use of these methods will create confidence by all stakeholders in the methodologies.

Develop an approach to integrate drivers
Recommendation: The FIM and other AM tools include means of incorporating drivers from executive level management or OEB. For example, an increased emphasis on reliability may be reflected in an increase in customer outage cost. Toronto Hydro is in the process of re-creating its value model, which identifies and weights the drivers of spending decisions. It will be important to ensure that there is consistency between these weights and the FIM: either the weighting should be done based on the assumptions in FIM, or the FIM assumptions should be updated to reflect the weightings.

Steps taken to-date: Since the new value model is still in development, the asset management team has not yet filtered its results into the FIM.

Asset Condition Assessment data
Recommendation: THESL's plan going forward is to continue improving data collection. Once the data and health index calculations are made current, THESL should begin to analyze the statistics. For example, THESL will attempt to calculate the correlation between health index and failure rate for each asset class (and some sub-classes).

Steps taken to-date: THESL has continued collecting condition data as required by ACA. This is a long-term process, requiring several years before all assets have been cycled through.

Feeder Investment Model
Recommendation: The FIM has been implemented for only four asset classes so far (i.e., underground cable, vault transformers, underground switches, and network units). Some work has been done on several other asset classes, including overhead lines and major station equipment, but these tools have not been finished and implemented. The intent should be to extend the FIM to all major asset classes.

Steps taken to date: The FIM has been extended to all major asset classes

Continual evaluation of customer outage costs
Recommendation: THESL should investigate ways of improving its estimates of customer outage cost. There is not necessarily anything wrong with the values currently being used, however this is a notoriously difficult parameter to evaluate; new surveys and methods are continually being published.

Steps taken to-date: In addition to the value model work discussed previously, THESL has continued to evaluate and examine other customer outage cost valuation studies, and to compare the results with their own estimates and assumptions.

Conclusions

Toronto Hydro has one of the more advanced and well-developed processes for identifying, justifying, and prioritizing spending related to aging infrastructure in the electric utility industry. In addition to the specific points discussed below in this report, there are three foundational principles that they have consistently applied and on which the process has been built.

- *Customer focus.* A central tenet of asset management is that decisions should be made from the perspective of the customer. THESL's process is explicitly customer-driven. It is common among electric utilities to find that decisions are actually being made with a strong bias toward the benefit of the utility itself, e.g., to reduce troublesome maintenance or to standardize equipment regardless of whether it is cost effective for the rate-payer.
- *Use of data.* THESL has made use of historical data, surveys, other utility's experience, and the tacit knowledge of their own and third-party experts in developing their processes. The use of these data has been documented and is subject to inspection. The most common approach to using data is *ad hoc*, in an anecdotal way to justify a particular project or policy. For example, a field engineer might use the trend in cable failures over time to justify a cable replacement program, without doing the work necessary to determine whether the trend actually supports his proposal.
- *Continual improvement.* Toronto Hydro has made ongoing efforts to improve the accuracy of the input assumptions and algorithms used in their planning processes. For example, The Feeder Investment Model (discussed below) and Asset Condition Assessment have undergone significant upgrades within the past few years. Assumptions about failure rates, outage effects, and benefits of upgrade are constantly being reviewed and compared with available data.

DARIN E. JOHNSON

Experience Summary

Darin Johnson is the President and director of the asset management practice at BIS Consulting, LLC. His experience includes risk analysis, capital planning, and life-cycle cost analysis for electric transmission and distribution, water/wastewater, and hydro and thermal generation facilities. This work addresses the full range of asset management program development, from framework and strategic planning through implementation of decision-support methodologies and business processes to justify and prioritize replacement of aging assets and other spending programs.

Credentials

Licensed Professional Mechanical Engineer, Washington State

B.S., Mechanical Engineering, University of Washington

Relevant Expertise

- *Decision-support methodologies*
- *Risk-based economic evaluation*
- *Capital planning and prioritization*
- *Statistical analysis of failure data*
- *Asset Management strategic planning*

Predictive Maintenance Tool; Duke Energy, Midwest Commercial Generation

Developed a tool for evaluating the life-cycle cost tradeoffs between replacement and refurbishment strategies of assets at multiple coal-fired generating facilities. Work included development of failure projections, facilitation guides for eliciting expert criticality data, a prototype model and integration strategy, and support for capital planning and prioritization.

Feeder Investment Model; Toronto Hydro

Created a risk-based economic model for optimizing the timing and scope of refurbishment programs on feeder lines assets, including overhead lines, underground cables, and other equipment. The outputs of this model feeder directly into a standardized business case template, which quantifies the scope of the project, its cost, and the expected benefit in terms of improved reliability. The business cases are being used by Toronto Hydro as part of their ongoing rate case application to their regulator.

Capital Spending Evaluation Process Development; Washington State Ferries

Established a business case process for evaluating proposed capital projects, especially preservation spending, to determine which projects were justified and how to prioritize in case of limited funding. Project was driven by a legislative requirement for asset management methods and the need for Ferries to produce convincing and transparent justification for spending requests to the State.

Condition, Criticality, and Risk Assessment Process; Eskom Transmission, South Africa

Worked with Eskom's asset managers as part of an overall asset management project to develop a process and tools to justify replacement of aging transmission equipment. Facilitated business case to support the decision to repair, replace, or refurbish a high-voltage gas-insulated substation. The business case quantified the benefit of the preferred option as well as its priority relative to other spending alternatives.

Asset Management Program Development; Idaho Power Company

Led development and application of an asset management process to justify and prioritize replacement and overhaul of existing, aging infrastructure in Idaho Power's electric transmission and distribution systems. The decision support methodology considered all costs and benefits of asset ownership to optimize life-cycles, maintenance strategies, and other spending options. Costs considered include direct capital or maintenance costs as well as the cost of outages carried by Idaho Power's customers. The result is an optimized spending plan for each asset type, along with an economic case to justify the spending both internally and externally, and a measure of the priority of each spending program.

Alaskan Way Viaduct Utilities Economic Analysis; Seattle City Light and Seattle Public Utilities

Provided consulting services to Seattle City Light and Seattle Public Utilities to support economic evaluations of options to address Transmission and distribution lines and combined sewer upgrades as part of the Alaskan Way Viaduct replacement project. The project includes not only replacement of existing facilities and coordination with roads and other utilities, but also upgrades in response to increased regulatory requirements.

Morse Lake Pump Station Risk-Assessment and Alternatives Analysis; Seattle Public Utilities
Provided risk-assessment and economic analysis in evaluating capital improvements to reduce risk to the City's water supply of low-probability, high-impact events. The work comprised estimating probabilities of rare events, developing scenarios to model the utility's response, and estimating the total economic cost of the event. A major part of the work was assessing the uncertainty of the cost estimates, which were a major source of overall risk. The final decision is still being made, but it appears that the large-scale interventions are not justified. Aborting the major construction project, based on the results of the risk analysis will save Seattle Public Utilities more than $50 million.

Risk-Based Capital Prioritization Process; PacifiCorp Hydro Generation
Developed and implemented a methodology for reviewing and analyzing key components in PacifiCorp's 22 largest hydro generation facilities, to provide a basis for capital spending decisions. The study prioritized expenditures across nearly 200 components, based on the benefits of upgrade, including avoided risk. These results were used to develop plant-wide upgrade and rehabilitation plans for each of the 22 plants, and to prioritize among plants or entire river systems.

Sewer Replacement Planning; Seattle Public Utilities
Development of a risk-based model to determine remaining economic life of aging sewer pipes. The methodology used the pipes' probability and consequences of failure to select the economically optimal strategy and timing of pipe rehabilitation. The result is a projection of future capital and operating expenses for the sewer system. Failure probability curves were developed using a sophisticated statistical analysis of past failures, which indicated a much lower failure rate than industry standard models.

Electrical Distribution System Asset Management Program; Hydro Ottawa
Development and implementation of an economic life process to be used in planning and budgeting capital expenditures for electrical distribution system. The methodology was used as part of a successful rate case before the Ontario Electric Board.

Electron Power Plant, Assessment of Remaining Economic Life; Puget Sound Energy
Conducted mortality study of a 10-mile wooden flume serving Puget Sound Energy's Electron Power Plant. The plant was built in 1904, and the flume was rebuilt most recently in 1985. The mortality of the flume was used by PSE to verify the rate of depreciation of the project overall. The study included condition assessment of the flume and support structures, and an economic and probabilistic analysis of these components to estimate their remaining economic life based on the expected rate of failures.

Transformer Replacement and Spares Strategy at Grand Coulee Dam; Bonneville Power Administration
Risk analysis study for Bonneville Power Administration of the step-up transformers in the left and right powerhouses at Grand Coulee. This study determined the optimum number and timing of spare transformers to back up the existing 54. It also recommended optimal replacement strategies based on the availability of spares. Work included a condition assessment of the transformers, as well as development of methods for considering multiple, concurrent failures, which would require more than one spare transformer.

Other Asset Management Projects

- Development of risk-based economic life model, transmission and distribution assets; **Tacoma Powe**r
- Development of tools to support replacement planning of substation equipment; **Landsnet**, Iceland
- Risk-based asset replacement program development; **MRSK-1**, Moscow, Russia
- Risk-Based Autotransformer Replacement tool; **ComEd**
- Risk-based economic approach to optimizing improvements in fire flows for **Seattle Public Utilities**
- Condition Assessment and Life Extension Plan, Rock Island Powerhouse; **Chelan County PUD**
- Asset Condition Assessment and Baseline Study, statistical sampling techniques for condition assessment; **British Columbia Transmission Corporation** (now BC Hydro)
- Optimization and justification of upgrade and life-extension at Mossyrock hydro plant; **Tacoma Power**

Experience Summary

Neil Reid's experience includes asset management, condition assessment, conceptual engineering, project management and scheduling, preliminary and final design, cost estimating and control, equipment specification, construction management and testing of hydroelectric, fossil and nuclear power plants, high voltage substations, transmission, and distribution systems.

In addition to project management, he has an extensive background in preparing reports, filings and proposals for managing, defining and evaluating power supply interconnection plans, power and energy requirements, and load flow, short circuit, and voltage drop studies. He has had full responsibility for the preparation of asset condition assessment reports for use in rate filings submitted to the Ontario Electric Board, the BC Utilities Commission and the National Energy Regulator of South Africa (NERSA). He has provided expert testimony related to electric power system costs, operation and safety. Mr. Reid is a registered Professional Engineer in several states in the United States of America and is qualified for registration in Canada and the United Kingdom.

Credentials

B.S., Electrical Engineering, University of Bristol, England, 1962
Professional Engineer in 7 states
45 years in power transmission

Relevant Expertise

- *Documentation in support of rate-filing.*
- *Asset Management*
- *Condition Assessment and Health Indexing*
- *Project Management*
- *Transmission and Distribution systems engineering*

Process Mapping and Redesign Methodology
Eskom Transmission Division, Johannesburg, South Africa

Core Team Member on UMS project. Project Lead for Design and Construction process mapping and redesign methodology development. Responsible for facilitation of the Design and Construction Process Team in the identification of the Level 1, 2, 3 and 4 processes as they would specifically apply to Eskom. The criticality of the processes and sub-processes identified were assessed and prioritized, producing a list of key sub-processes for redesign. The preliminary process flows were mapped through a series of facilitated team meetings. This effort was focused at documenting the main process flow in order to establish a framework for later refinement. Special attention was given to the identification of best practices and their impact on the process.

Standard formats and architectures were applied to assist in maintaining consistency and compatibility between the processes. To accompany the process maps the team produced process guides, change matrixes, and detailed process accountabilities. These items were to assist in the complete communication of the process design changes required. Training and Information technology needs were identified, as well as applicable process and performance measures. The final maps and guides were presented to the organization early in 2009.

Asset Condition Assessment and Baseline Study
BCTC, British Columbia, Canada

Project Manager. Led a comprehensive Asset Condition Assessment and Baseline Study of all physical assets managed by British Columbia Transmission Corporation (BCTC) and preparation of an independent report to support a filing to the BC Utilities Commission in 2005. Lead role in developing the documentation for the British Columbia Utilities Commission related to Asset Condition Assessment, and answered questions from BCUC and the interveners related to the findings of the baseline study as well as gaps and recommendations for continuation and improvement going forward.

Asset Condition Assessment
Hydro One, Toronto, Ontario, Canada
Assistant Project Manager. Assisted in leading a comprehensive Asset Condition Assessment program of all physical assets owned and operated by Hydro One (formerly Ontario Hydro). Preparation of an independent report to support a filing to the Ontario Electric Board in 2003.

Condition and Criticality Assessment
Eskom Transmission Division, Johannesburg, South Africa
Core Team Member on UMS project. Project Manager for Condition and Criticality Assessment of selected Transmission assets. Responsible for facilitation of development of Condition Assessment methodology and metrics for selected transmission assets in the Eskom Transmission system. BIS Team also developed criticality assessments for individual assets and prepared detailed analytical tools to facilitate the calculation of the optimal economic time to replace or refurbish any given asset. These tools were presented to the organization early in 2009.

Asset Management Plan
Hydro Ottawa Limited, Ottawa, Ontario, Canada
Special Consultant. Consulted to the team working with Hydro Ottawa Limited for development of a comprehensive Asset Management Plan.

Primary Power Equipment Asset Management Analysis
Several Clients, Washington
Project Manager. Led risk-based asset management analyses and prepared reports for primary power equipment for several clients, including Bonneville Power Administration, Bureau of Reclamation, Puget Sound Energy, Seattle City Light and Chelan Public Utility District.

Asset Due Diligence Report Review
Trans Alta Utilities, Calgary, Alberta, Canada
Project Manager and Lead Electrical Engineer. Led owner's review of the Asset Due Diligence report prepared by Trans-Elect for the acquisition of the transmission assets of Trans Alta Utilities, Alberta. The transmission system consists of 11,600km overhead lines and 269 substations operating at voltages of 500kV, 240kV, 138kV and 69kV.

Rock Island Hydroelectric Power Plant Condition Assessment
Chelan Public Utility District, Wenatchee, Washington
Lead Electrical Engineer. Led condition assessment, life extension planning and upgrade study for electrical equipment at the Rock Island hydroelectric power plant on the Columbia River. Prepared detailed reports related to electrical equipment for inclusion in the final documentation to support major plant additions. The plant consists of two powerhouses containing a total of 18 propellers, Kaplan and bulb type units with a total capacity of approximately 600 MW.

Capital Improvement Program Review
Seattle City Light, Seattle, Washington
Principal-in-Charge and Project Manager for the capital improvement program review which was requested by the Seattle City Council, Washington. The aim of the project was to determine if the City's major ($150 million/year) capital investment in its electric power facilities was prudent. The first part of the project was a physical review of the condition of this utility's capital facilities, including hydroelectric plants, substations, transmission and distribution facilities, downtown network, and general plant. The second was a review of the utility's internal processes and controls used to formulate, budget, approve and manage capital improvement programs and projects.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ASSOCIATION OF MAJOR POWER CONSUMERS IN ONTARIO

UNDERTAKING NO. J1.10:

Reference(s):

To provide a list of all the projects that directly affect SAIFI.

RESPONSE:

As a follow up to the response for interrogatory 2B-AMPCO-1, the following programs feature Reliability as a primary or secondary driver and are expected to directly affect SAIFI:

- Box Construction Conversion
- Contingency Enhancement
- Customer Owned Station Protection
- Design Enhancement
- Feeder Automation
- Local Demand Response
- Network Circuit Reconfiguration
- Overhead Infrastructure Relocation
- Overhead Momentary Reduction
- Reactive Capital
- Rear Lot Conversion
- Stations Expansion
- Stations Switchgear Renewal
- Underground Legacy Infrastructure

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ASSOCIATION OF MAJOR POWER CONSUMERS IN ONTARIO

While all these programs are expected have a positive impact on SAIFI, the benefits are rarely limited to frequency and are expected to generally improve SAIDI as well.

In addition to programs with Reliability as a driver, it should be noted that any program that reduces failure risk through asset replacement or refurbishment will also have a mitigating impact on both SAIDI and SAIFI.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ASSOCIATION OF MAJOR POWER CONSUMERS IN ONTARIO

UNDERTAKING NO. J1.11:

Reference(s):

For Table 1 in part E6.10.2 of Exhibit 2B, to provide that table, breaking down the network unit type into the types that are going to be employed.

RESPONSE:

As mentioned in Exhibit 2B, Section E6.10.4 paragraph 3, the early stages of the NUR program will focus on replacing Fibertop Network Units because they pose the most immediate risk of failure. Once these units are removed, Semi-Dust-Type Network units, which are the next highest risk, will be replaced. For 2015 the breakdown is 40 Fibertop Network Units and 0 Semi-Dust-Type Network Units. During the remainder of the CIR period (2016-2019), 65 Fibertop Network Units and 135 high risk Semi-Dust-Type Network Units will be replaced using the prioritization criteria established in section E6.10.4.1. The exact mix of units in each year will depend on future planning considerations.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ASSOCIATION OF MAJOR POWER CONSUMERS IN ONTARIO

UNDERTAKING NO. J1.12:

Reference(s):

a) To provide historical pace of transformer replacement.

b) To provide information on contractor unit costs, or explain why it cannot be disclosed

RESPONSE:

a) The historical pace of power transformers replacement from 2011-2014 is shown as below:

Year	2011	2012	2013	2014
Transformer Units Replacement	5	5	4	6

Note that three projects forecasted for 2014 completion are included in the 2014 units. The average unit cost for a transformer replacement is $440K for the 2011-2014 period.

b) The contractor unit cost information has been filed in confidence, as Appendix A to this response. As discussed in the response to the Interrogatory 2B-CUPE-2, the aggregation of design and construction contractor's unit prices determines the total price that contractors are paid for delivering a project. Contractors are not paid on a time and material basis on a project but rather for a unit of work, the cost of which is determined through an RFP process. As such, contractors are ultimately responsible

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ASSOCIATION OF MAJOR POWER CONSUMERS IN ONTARIO

for absorbing the variances between the unit cost calculated for a specific job and their actual costs for that work. Accordingly, the actual costs per unit incurred by contractors in completing Toronto Hydro's capital projects can vary significantly from project to project depending on project-specific circumstances (location, time of year, proximity to energized assets, terrain, spatial restrictions, etc.). As a consequence, the cost actually incurred to complete a particular job may differ materially from the cost that the contractor is paid for that job.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ONTARIO ENERGY BOARD STAFF

UNDERTAKING NO. J1.13:

Reference(s):

RE: OEB Staff 34, on page 3, in the second (ii) on line 8, to provide the word missing after "asset".

RESPONSE:

The missing word is "age". The corrected passage from Interrogatory 2B-OEB Staff 34, part b) (ii) is as follows:

Reduce Expenditures in Some Areas: As the asset base is renewed, corrective maintenance activities and costs related to deteriorated asset health and increased asset age can be expected to decrease as can costs related to specific asset classes that are eliminated from the system such as porcelain insulators (e.g., insulator washing) and fibertop network protectors (e.g., fibertop cleaning).

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ONTARIO ENERGY BOARD STAFF

UNDERTAKING NO. J1.14:

Reference(s):

To advise whether the useful end of life plays any part in determining the economic end of life, or the requirement for assets to get to a stable state of asset replacement.

RESPONSE:

Please see response to Undertaking J1.7 (Schedule J1.7).

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ONTARIO ENERGY BOARD STAFF

UNDERTAKING NO. J1.15:

Reference(s):

To provide a specific calculation for a specific power transformer asset.

RESPONSE:

To illustrate the variability in actual asset level optimal intervention time calculations, Toronto Hydro has provided two contrasting examples for power transformers.

Figure 1 below shows the calculation for power transformer TR2 at High Level MS, which is discussed in the Power Transformer Renewal program – Section E6.14 of the DSP.

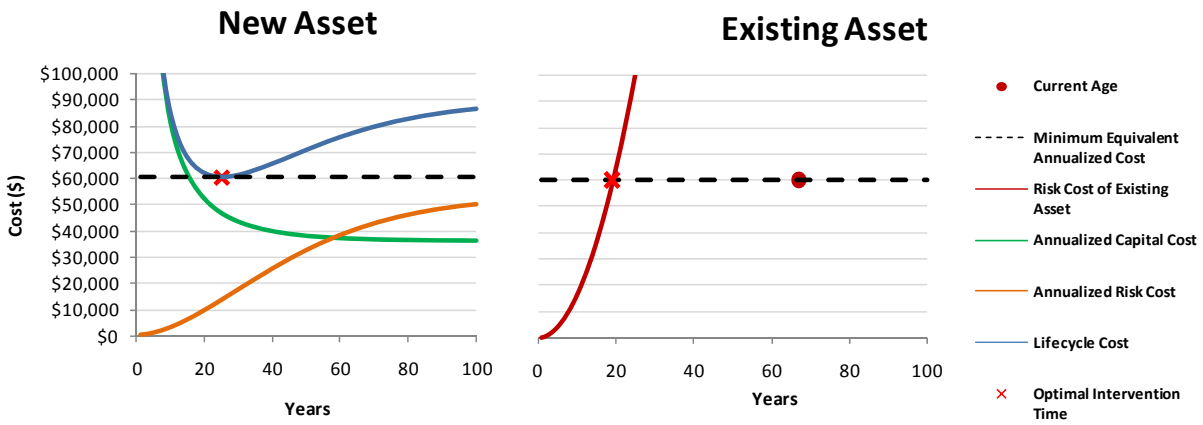


Figure 1: Lifecycle Cost for a Power Transformer – TR2 High Level MS

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Figure 2 below shows the calculation for power transformer TR1 at Underwriters Crouse MS, which is also identified in the Power Transformer Renewal program.

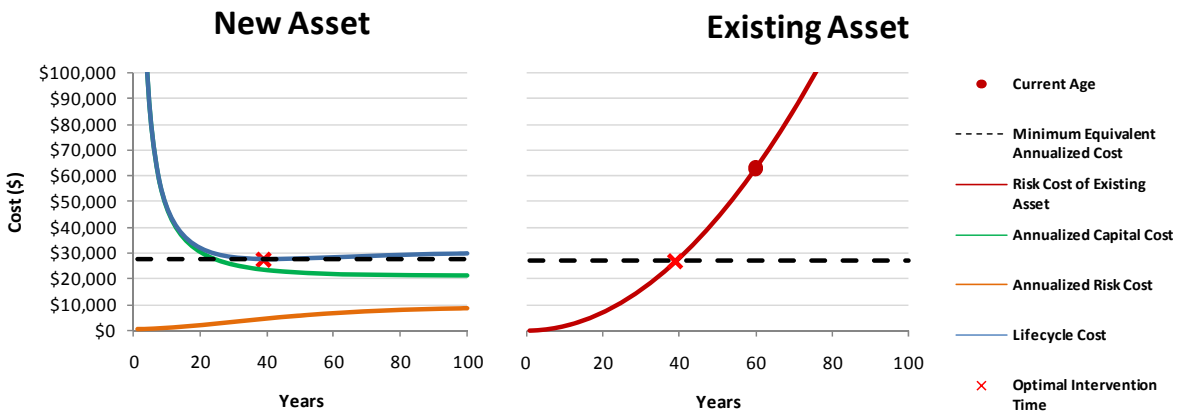


Figure 2: Lifecycle Cost for a Power Transformer – TR1 Underwriters Crouse MS

In order to determine the Optimal Intervention Timing for a power transformer, first the Annualized Capital Cost and the Annualized Risk Cost of a new transformer in the location of the exiting asset are developed, as shown by the green and orange curves in the two figures. The Annualized Capital Cost curve decreases as the lifecycle is extended because, as the transformer ages, the initial cost of purchasing and installing the transformer is amortized over a greater number of years.

The Annualized Risk Cost curve represents the amortized risk for a new asset. Figure 1 and Figure 2 show two possible scenarios for the risk costs of different power transformers. As shown, the Annualized Risk Cost curve of the transformer in Figure 1 is steeper than that of Figure 2. The difference in the Annualized Risk Cost curves in the two figures for the new power transformers is driven by their respective configurations within the system at the two locations. The transformer shown in Figure 1 supplies a

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ONTARIO ENERGY BOARD STAFF

significantly larger load than the transformer in Figure 2. In the event of a failure, the transformer at High Level MS will impact a larger amount of load. As a result, the Annualized Risk Cost for the transformer at High Level MS, in Figure 1, is higher than the Annualized Risk Cost for the transformer at Underwriters Crouse MS, shown in Figure 2.

The difference in the risk cost curves due to the configuration at the two locations can also be observed for the existing power transformers, as shown by the red curve on the right in the two figures. In addition, the existing power transformer depicted in Figure 1 (TR2 at High Level MS) is older than the power transformer shown in Figure 2 (TR1 at Underwriters Crouse MS). Furthermore, the existing transformer in Figure 1 has a lower Health Index score than the one in Figure 2. Both of these factors contribute to an increased probability of failure and thus a steeper risk cost curve for the existing transformer in Figure 1 when compared to the one in Figure 2.

Both the Annualized Capital Cost and Annualized Risk Cost of the power transformer will have a significant impact on the economic end-of-life of these power transformers. The sum of the Annualized Capital Cost and Annualized Risk Cost results in the Total Lifecycle Cost of the asset, represented by the blue curve in the figures.

To determine the optimal lifecycle of a new transformer in a particular location, the minimum value of the lifecycle cost curve is taken, as shown by the red “X” in each figure. The minimum value for the lifecycle cost curve occurs at 25 years in Figure 1. This point defines the Minimum Equivalent Annualized Cost as shown by the dashed line. The intersection of this dashed line with the Risk Cost of the Existing Asset (red

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ONTARIO ENERGY BOARD STAFF

curve) indicates the optimal age for replacement of the existing transformer given its age and condition, which determines the optimal intervention time for this asset.

In Figure 1, the optimal intervention time for the existing power transformer, shown on the right, is zero since this transformer is 68 years old in 2015, which is well past the intersection point of the risk cost curve for the existing asset and the Minimum Equivalent Annualized Cost line. Note that the risk cost curves for the existing power transformers, shown on the right in both Figures 1 and 2, are higher and steeper than the Annualized Risk Cost of a new power transformer due to the age and condition of the existing transformers.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ONTARIO ENERGY BOARD STAFF

UNDERTAKING NO. J1.16:

Reference(s):

To explain the difference between the depreciation values under IRFS and what was being proposed in the capital programs for the same assets

RESPONSE:

Please see response to Undertaking J1.7 (Schedule J1.7).

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ASSOCIATION OF MAJOR POWER CONSUMERS IN ONTARIO

UNDERTAKING NO. J2.1:

Reference(s):

To provide two property assessments for 715 Milner.

RESPONSE:

The requested property assessments are filed as appendices to this response:

- Appendix A: Assessment by Wagner, Andrews Kovacs dated March 17, 2011;
- Appendix B: Assessment by MacKenzie Ray Heron & Edwardh Real Estate Appraisers and Consultants, dated December 13, 2011.

715 MILNER AVENUE
TORONTO, ONTARIO

FULL NARRATIVE APPRAISAL
(AS OF JANUARY 28, 2011)

wagner
andrews
kovacs
real estate valuation

Brian J. Wagner, AACI
Bruce C. Andrews, AACI
Karl Kovacs, AACI
Christopher D. Adams, AACI
Eric P. Mares, AACI

March 17, 2011
File No. 11-139

2244446 Ontario Inc.
C/O Consolidated Group of Companies
2267 Islington Avenue
Toronto, Ontario
M9W 3W7

ATTENTION: MR. CHRIS HINN

RE: VALUATION OF 715 MILNER AVENUE, TORONTO, ONTARIO

As requested, we have carried out a valuation analysis with regard to the property located at 715 Milner Avenue in the City of Toronto (Scarborough). The results of our analysis are presented in the attached Narrative Appraisal report. The purpose of this appraisal is to estimate the prospective market value of the subject property assuming that the improvements are renovated and occupied according to the information provided and/or market rents. It is our understanding that the intended use of the appraisal is to assist in arranging mortgage financing of the property.

The subject property comprises a 13.62 acre lot improved with an office/industrial building containing a total leasable area of 257,622 square feet not including 22,081 square feet of mezzanine area. The property is located on the south side of Milner Avenue and the north side of Highway 401, just west of Morningside Avenue. The subject property is currently 78.6% leased to two warehouse tenants, including one tenant related to the property owner and the balance of the building currently comprises vacant office space.

After careful consideration of all the available information, it is our opinion that the prospective market value of the subject property, as of January 28, 2011, is:

FIFTEEN MILLION NINE HUNDRED AND SEVENTY DOLLARS
($15,970,000)

The enclosed appraisal report has been prepared in accordance with the Canadian Uniform Standards of Professional Appraisal Practice (The Standards), as adopted by the Appraisal Institute of Canada. The valuation is subject to the Terms of Reference and the Assumptions and Limiting Conditions as outlined within.

We have prepared this report for you and your associates for your information and guidance. It is not to be reproduced, in whole or in part, without our prior written agreement. We hereby certify that we have no present or contemplated interest in the within described property of any kind whatsoever. If you require any further information on this matter, please do not hesitate to contact the undersigned.

Yours truly,

WAGNER, ANDREWS & KOVACS LTD.

Brian J. Wagner, BA, AACI, P.App

Louie Tragianis, BA, Candidate

367 Rimrock Road | Toronto, ON | M3J 3G2
T 416.633.4437 | F 416.633.5020 | www.wakconsulting.com

PROPERTY IDENTIFICATION

Owner	:	2244446 Ontario Inc.
Address	:	715 Milner Avenue Toronto (Scarborough), Ontario
Legal Description	:	PINS: 06191-0374 & 06191-0396 Part of Block I on Plan M1700, Designated as Parts 1 and 2 on Plan 66R-14146, and Part of Block C & D on Plan M1705, Designated as Part 2 on Plan 66R-24746, City of Toronto (former City of Scarborough), Province of Ontario

PROPERTY DESCRIPTION

Site Area	:	13.62 acres (5.51 hectares)
Zoning	:	"M" – Industrial
Improvements	:	Former single-user industrial facility being renovated for multi-tenant office and industrial uses
Leasable Area	:	65,160 square feet – 2-storey office component 189,871 square feet – ground floor warehouse component 2,591 square feet – second floor warehouse lunchroom 257,622 square feet – total leasable area 22,081 square feet – warehouse mezzanine 279,703 square feet – total building area
Highest & Best Use	:	Proposed office/industrial uses

INCOME DETAILS

Occupancy	:	78.6% leased
Average Net Rent PSF	:	$6.27 (assumes full occupancy)
Stabilized Net Income	:	$1,397,631 (based on contract and market rents)

VALUATION

Valuation Date	:	January 28, 2011
Prospective Market Value by Income Approach	:	$15,970,000
Prospective Market Value by Direct Comparison Approach	:	$15,460,000
Final Estimate of Prospective Value	**:**	**$15,970,000**
Indicated Value PSF Bldg	:	$61.99
Indicated OCR	:	8.75% (based on the estimated stabilized net income)

TERMS OF REFERENCE

PURPOSE AND INTENDED USE OF THE APPRAISAL

The purpose of this appraisal is to estimate the prospective market value of the subject property assuming that the improvements are fully renovated and occupied according to the information provided and/or market rents. It is our understanding that the intended use of the appraisal is to assist in arranging mortgage financing of the property.

ASSUMPTIONS AND LIMITING CONDITIONS

The valuation of the property is subject to certain extraordinary assumptions and limiting conditions, including the following:

- The property has a total leasable area of 257,622 plus a mezzanine area of 22,081 square feet, as per the information provided.
- This valuation assumes that the property is free and clear of any debt or related financial liabilities or encumbrances that might exist against the property at the time of valuation.
- We have been provided with realty taxes costs for the subject property and have assumed that this information is reasonable and reliable. The current realty taxes for the subject are based on its use as a single-user industrial building, with the renovations and multi-tenant occupancy of the subject changing its use. Our analysis assumes that the realty taxes for the property would not change significantly from the current level, however some risk is involved in our income projections if realty taxes change on a reassessment of the property.
- A review of all available lease documents has been carried out in conjunction with the preparation of this report. The valuation assumes all tenants are paying rent in accordance with the terms of their lease, as set out in the tenancy schedule included in this report.
- This valuation also assumes the income and expense information presented in this report and as provided by the property owner is a reasonable and accurate representation of the current status of the property.
- We have not undertaken a title search of the subject property at the Land Registry Office but have used GeoWarehouse and assumed that the title to the subject property is good and marketable without any unusual encumbrances.

The reader's attention is drawn to further assumptions and limiting conditions as outlined in the Addenda of this report.

PROPERTY RIGHTS APPRAISED

The property rights appraised are those of the fee simple interest in the real estate comprising the property. Fee simple is defined as a fee without limitation to any particular class of heirs or restrictions, but subject to the limitations of government regulations.

EFFECTIVE APPRAISAL DATE

The effective date of this appraisal is January 28, 2011.

EXPOSURE TIME

Exposure time may be defined as: the estimated length of time the property interest being appraised would have been offered on the market prior to the hypothetical consummation of a sale at market value on the effective date of the appraisal. It is a retrospective estimate based upon an analysis of past events assuming a competitive and open market. In the case of the subject property, we estimate a time period of between 6 and 9 months would have been appropriate in order to achieve market value.

DEFINITION OF MARKET VALUE AND PROSPECTIVE VALUE

Market value may be defined as *the most probable price which a property should bring in a competitive and open market as of the specified date under all conditions requisite to a fair sale, the buyer and seller each acting prudently and knowledgeably, and assuming the price is not affected by undue stimulus*. Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:

- Buyer and seller are typically motivated;
- Both parties are well informed or well advised, and acting in what they consider their best interests;
- A reasonable time is allowed for exposure on the open market;
- Payment is made in terms of cash in Canadian Dollars or in terms of financial arrangements comparable thereto, and
- The price represents the normal consideration for the property sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale.

A prospective value estimate, estimates the value of a property that is proposed for or that is currently under construction or renovation, assuming that full construction or renovation and occupancy of the property has been completed. It also assumes that there are no significant market changes from the valuation date until completion and occupancy of the property.

HISTORY

According to our computerized search of GeoWarehouse, the subject property was acquired by the current owner, 2244446 Ontario Inc., on November 30, 2010 for a total consideration of $8,000,000. The subject property is currently listed for sale for $22,800,000. We are not aware of any listings for sale or offers on the property.

SCOPE OF THE INVESTIGATION

In forming our opinion as to the market value of the subject, as of the stated valuation date, we have relied upon information which is detailed in this report, and carried out the following specific functions:

- reviewed land registry information pertaining to the subject;
- inspected the subject property on January 28, 2011;
- reviewed land use regulations applicable to the subject;
- considered information with respect to sales, listings and leases, at or about the valuation date, of properties considered similar to the subject, where we have significant knowledge of such sales, listings and leases to assess them as being relevant to our opinion, as set out herein. While we believe our review to be reasonably complete, we cannot warrant that we have:
  - i) uncovered and assessed every real property transaction at or about the valuation date that might be said to bear on the determination of the market value of the subject, or
  - ii) fully discerned the motives behind the sales, listings and lease information considered in our analysis, such that our weighting of said information is without subjectivity;
- viewed the comparable properties used in this valuation;
- considered current development trends, in the general context and as they specifically relate to the subject;
- conducted a review of published market data and other public information as it relates to the subject;
- reviewed a site plan for the subject property; and,
- reviewed financial information pertaining to the subject, including income and expense information, copies of all available lease documents, and site & building plans.

MARKET OVERVIEW

INTEREST RATES : Chartered Prime Rate January 2011 3.00%

: Canada 10 Year Term Bonds January 2011 3.27%

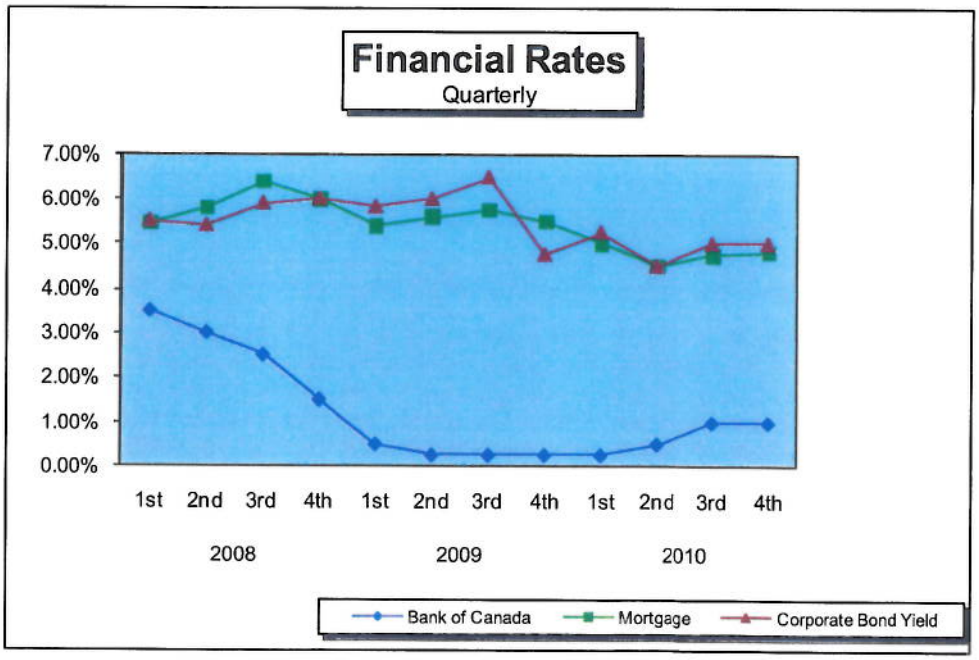
: Chartered Bank Prime Rate reduced from 4.25% to 4.0% on October 21, 2008, from 4% to 3.5% on December 10, 2008, to 3.00% on January 20, 2009, to 2.5% on March 3, 2009 and to 2.25% on April 21, 2009. On June 1, 2010 the rate increased to 2.50%, to 2.75% on July 20, 2010, and to 3.00% on September 8, 2010.

Mortgage rates for single family residential properties are in the 5.0% range. Commercial mortgage rates vary depending on security, with lending institutions showing very conservative lending policies. Rates are typically 175 to 250 basis points above Bank of Canada Bonds, with loan to value ratios between 50% and 75%.

INFLATION : 2.4% year-over-year.

CANADIAN DOLLAR : The value of the dollar has fluctuated dramatically over the past few years, between $0.90 and $1.01 US, and is currently at the upper end of this range.

STOCK MARKET : The S&P/TSX Composite Index has fluctuated dramatically over the past year with a current level of about 13,400, with markets slowly increasing.



OVERALL The uncertainties brought about by a declining US economy, sub prime mortgage problems and credit issues affected real estate market values starting in mid 2008 with September 2008 being the most dramatic date when sales and leasing activity slowed dramatically. Most participants were very cautious, and it is accepted that values had declined from a peak in mid to late 2008 to mid/late 2009. A general recession and negative economic growth occurred, but activity, demand and values have increased in the last year with good demand existing for real estate.

INDUSTRIAL Prices are stable for most property sizes, with rental rates stable. Vacancy rates are stable in general as existing space is absorbed, new construction is minimal and some existing properties are redeveloped to alternative uses (residential/retail/office). The higher Canadian Dollar over the past two years has had a negative effect on the manufacturing sector. There is minimal new construction occurring due to the high building and land cost, together with reduced demand.

RETAIL The retail market in the Toronto CMA is estimated to contain nearly 185 million square feet, including 84.8 million square feet in traditional shopping centres and 33.9 million square feet in strip retail buildings. New development over the past ten years mostly involves new format power centre projects, the majority of which are located at or near major highway interchanges; plus supermarket anchored neighbourhood plazas in developing residential communities. According to statistics provided by Ryerson University, there are 1,229 big box retailers in the Greater Toronto Area, with approximately 42.7 million square feet of retail space. In addition there are 77 power centres containing 23.5 million square feet and approximately 1,700 stores. The vacancy rate within these power centres is reported to be less than 3.5%. Other sectors of the retail market include traditional shopping centres where the year-end vacancy rate is reported to be 7.4%; and street-front stores in over 300 districts, where the vacancy rate is 8.4%, but fluctuates depending on location.

OFFICE Prices and rental rates are generally stable, with significant activity having occurred in the market over the past six months, including numerous transactions of larger multi-tenanted buildings. Vacancy rates are projected to rise somewhat to the 8% to 10% range, due in part to the completion of new office buildings in downtown Toronto and the availability of the vacated spaces as tenants move to new locations. Demand for office investments will continue and demand for smaller buildings which are all or part owner-occupied is strong.

RESIDENTIAL Current activity in the residential market shows declining activity year over year however, prices have increased during this same time frame. The residential condominium market continues to be extremely active with a large segment of the residential market comprising residential condominium units. The average home selling price, as reported by the Toronto Real Estate Board, for 2010, was $431,463 up 9% from 2009. The number of house sales for 2010, compared to 2009 declined by 1%. However, December 2009 to December 2010, showed a 21% decline in sales but a 5% increase in price.

LAND Values had been increasing up to mid-2008, with demand high for most types of vacant land. However, the downturn in the economy has made land one of the least attractive assets and values dropped dramatically, with almost no demand. Demand is returning to the market but financing is very difficult. The supply of vacant development land continues to shrink in the GTA. Redevelopment of older under-utilized sites is a common method of acquiring development sites. Implementation of Provincial land use policies including the Oak Ridges Moraine Conservation Plan (2001) and the more recent Greenbelt Plan (2005) have reduced the availability of development land in the Greater Toronto Area. The result has been increasing development pressures in other communities in Southern Ontario.

APARTMENT Demand exists for investment properties, but market activity is low due to a lack of available product. Recent vacancy rates were declining, particularly in the downtown Toronto area, but appear to be increasing to about 3% due to the large number of condominium apartments coming on-stream and low interest rates which make home purchasing more attractive.

INVESTMENT Capitalization rates are generally in the 6.5% to 8.0% range for industrial and commercial property, but lower (5% to 7% for multi-family residential properties). Low interest rates have enabled capitalization rates to remain low. Good quality properties are considered to be in high demand and in some cases are showing rates in the 5% to 6% range. Secondary properties are seeing rates of return in a range estimated at between 7.5% and 9.0%.

MARKET SUMMARY

GDP growth for the Canadian economy was only 0.6% in 2008 and declined 2.5% nationally in 2009. It increased by 3.1% in 2010. The economy is currently in a growth mode on a cautious level with the Canadian and US economies appearing to be out of recession, but still affected by worldwide uncertainty and economic difficulties. Overall, it is anticipated that real estate markets in the Greater Toronto Area will enter a relative period of stability, with residential markets showing reduced increases in prices. The commercial markets are also anticipated to experience general stability in terms of price and leasing activity, however, real estate is in demand as returns on alternative investments such as GIC's and term deposits are very low and the stock market is an uncertainty.

AREA DESCRIPTION

The subject property is located within the eastern portion of the City of Toronto, and the east-central portion of the former City of Scarborough. The City is centrally located within a Census Metropolitan Area that extends east to the City of Oshawa, west to the Town of Oakville, and north to the Town of Newmarket.

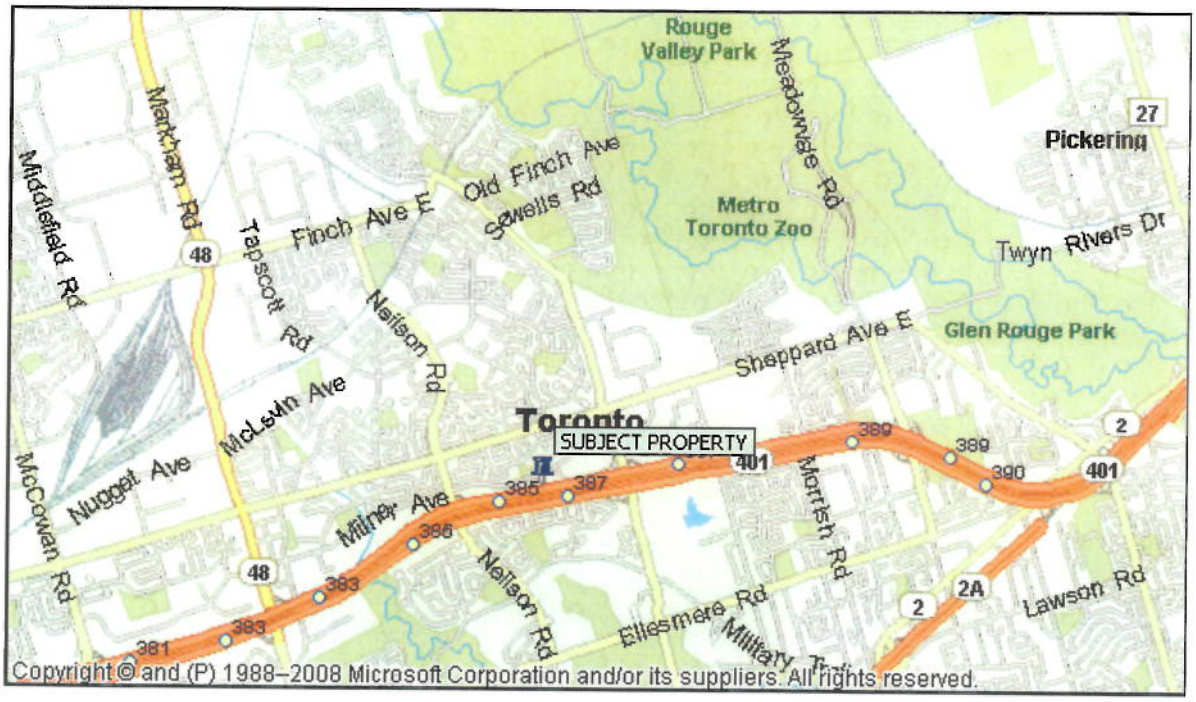
DEMOGRAPHIC AND ECONOMIC DATA

- The City of Toronto is centrally located within the Toronto CMA; which has an estimated 2011 population of 5,834,400. Also located within the Greater Toronto Area are the Regions of York, Durham, Peel, and Halton.
- Toronto is the major municipality within the CMA, with an estimated 2011 population of 2,700,500. The current population represents an increase of 3.44% over the 2006 census population; equivalent to average annual growth of 0.68%. The population represents 7.83% of the Canadian total.
- The City has an estimated 1,079,750 households. This figure is projected to reach 1,120,000 by 2016.
- Politically, Toronto is the capital of the Province of Ontario. Economically it is the capital of the Canadian financial and business services industries, and one of North America's major centers of health care and medical research.
- Toronto is the financial, commercial and administrative core of the Toronto CMA. It is also the fourth largest financial centre in North America with more than 300,000 employed in finance, insurance and real estate. It contains the headquarters of three of the six major Canadian banks, and the executive functions of the remaining.
- The City is also the focus of the region's transportation network and has historically had the highest concentration of businesses and residents.
- The service sector employs more than half of the City's work force. Overall, 75,000 businesses in Toronto employ more than 1.2 million.

- Toronto has an estimated labour force of 1,469,973. According to the Financial Post "Canadian Demographics 2011", the projected unemployment rate is expected to average 9.8%.
- For 2011, the City has a projected annual income of $35,645.00 per capita, and an average household income of $89,151.00.
- Retail sales in Toronto are projected to total over $28.0 billion. This equates to 6.27% of the Canadian total, and averages $26,000.00 per household, and $10,400.00 per capita.

LOCATION AND NEIGHBOURHOOD OVERVIEW

- The subject property is located in the eastern portion of the City of Toronto, within the boundaries of the former City of Scarborough. More specifically, the property it is situated on the south side of Milner Avenue, just west of Morningside Avenue. The subject also features exposure onto the north side of Highway 401.



- Milner Avenue is a minor 4-lane, two-way roadway that runs in an east/west direction from Conlins Road in the east to McCowan Road in the West. Morningside Avenue is a major traffic artery that runs in a north-south direction. It extends south from Lake Ontario to the south, terminating at Finch Avenue East to the north. Sheppard Avenue is a major artery running in an east/west direction through the central portion of the City. It originates in the east at Kingston Road, and continues west terminating at Weston Road.
- Public transit includes TTC bus service along Milner Avenue, Morningside Avenue and Sheppard Avenue East.
- The subject neighbourhood is considered to be that area bounded by Highway 401 to the south, Neilson Road to the west, Meadowvale Road to the east, and Finch Avenue East/Old Finch Avenue to the north. The indicated area is characterized by a mixture of industrial, commercial and residential development, as well as extensive parkland.
- Industrial development in the neighbourhood is primarily located north of Sheppard Avenue East and east of Morningside Avenue. This small industrial district built in the 1980's, contains a variety of multi-tenant

and single-user buildings in sizes ranging from 20,000 sqft to over 80,000 sqft. Additional industrial uses are located south of Sheppard Avenue East, and east of Morningside Avenue, and contain similar, although newer, development.

- Land uses surrounding the subject neighbourhood include various low-density residential communities immediately to the north of the subject (i.e. the Malvern communities), the Rouge Valley Park conservation lands and Toronto Zoo to the north-east.
- Lands along Sheppard Avenue include a mixture of residential uses west of Morningside Avenue and retail and commercial uses to the east of Morningside Avenue, including an auto mall located south of Sheppard Avenue East and east of Morningside Avenue along Grand Marshall Drive, Milner Avenue and Auto Mall Drive.
- Other retail uses in the subject neighbourhood include a variety of "big box" stores including Walmart, Home Depot, and Staples Business Depot, retail plazas, a supermarket anchored retail/office plaza, various gas bars (Shell and Esso), a multi-plex movie theatre, and freestanding restaurants including Wendy's/Tim Horton's, Mr. Greek Express, etc.

SUMMARY

In summary, the subject property is located in an area of residential, industrial and commercial development in the eastern portion of the City of Toronto. The location is attractive to a wide range of tenants, owners and investors; benefiting from convenient access by major arterial roadways and Highway 401; as well as a convenient labour supply in surrounding residential subdivisions. In general, the combined benefits of full municipal servicing, relatively good accessibility, and proximity within the Greater Toronto Area (GTA) area have contributed to the development of this industrial community. Access to the subject property is reasonably good, although it is located in the north easterly quadrant of the Scarborough area and somewhat distant from other industrial uses further to the west.

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SITE DESCRIPTION

LOCATION

The subject property is located within the eastern portion of the City of Toronto. More specifically, the subject is located on the south side of Milner Avenue, just west of Morningside Avenue. The subject site also features exposure onto the north side of Highway 401.

ADDRESS AND LEGAL DESCRIPTION

The subject property is municipally addressed as:

715 Milner Avenue
Toronto, Ontario

It is legally described as:

PINS: 06191-0374 & 06191-0396
Part of Block I on Plan M1700,
Designated as Parts 1 and 2 on Plan 66R-14146, and
Part of Block C & D on Plan M1705,
Designated as Part 2 on Plan 66R-24746,
City of Toronto (former City of Scarborough),
Province of Ontario

SERVICES

Full municipal services are available to the property including storm and sanitary sewers, gas, hydro, and telephone. Milner Avenue is a paved, municipally maintained roadway.

EASEMENT

We are not aware of any easements or rights-of-way affecting the subject property.

ASSESSMENT & REALTY TAXES

The Province of Ontario has undertaken a phased-in re-assessment of all properties within the province based on a valuation date of January 1, 2008, for the 2009-2012 taxation years. The subject is assessed for municipal taxation purposes as follows:

Roll No.	:	1901-12-2-153-00410-0000
Assessment (2008)	:	$15,684,000
Assessment (2011)	:	$14,214,444 – phased-in
Taxes (2010)	:	$294,000 ($1.14 psf) – estimate

ENVIRONMENTAL CONSIDERATION

We are not aware of any environmental contamination of the site or buildings as a result of any past or current use, but this statement is made as real estate appraisers and not environmental consultants. For valuation purposes, therefore, our appraisal assumes the property is free and clear of any environmental contamination, toxic materials or waste products. An environmental audit of the property is required to precisely determine the environmental status.

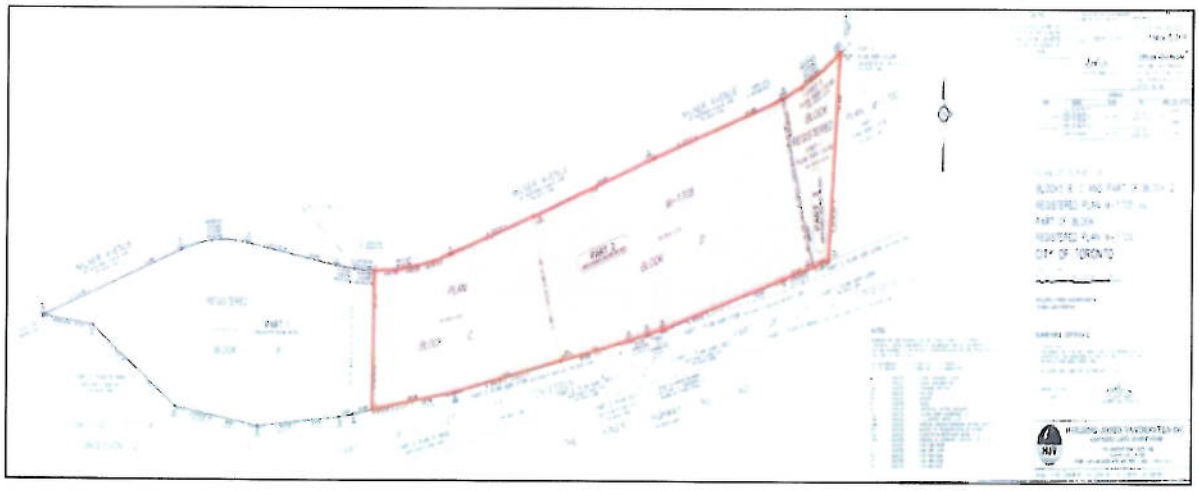
SITE TOPOGRAPHY

The subject site comprises generally level tableland located at grade with Milner Avenue and adjacent properties. Although no soil analysis or drainage tests were requested in conjunction with this appraisal, it is assumed that the soil characteristics are typical of the area and adequate with regard to the current use of the property and/or any future redevelopment.

SITE DIMENSIONS AND SHAPE

The subject site comprises an irregular shaped parcel of land with frontage on the south side of Milner Avenue of 1,715.98 feet (523.03 metres) and a maximum depth of 462.2 feet (140.9 metres) along its eastern boundary. The total area of the subject property is calculated to 13.62 acres (5.51 hectares). A survey of the subject property is included below.

SITE SURVEY



LAND USE CONTROLS

OFFICIAL PLAN

The Official Plan is a policy document that provides direction for planning activities. It is intended to co-ordinate the effects of change and future development in the best long-term interest of the municipality. It provides a framework for zoning and other local regulations.

The Official Plan for the City of Toronto designates the subject property as "Employment Area". As outlined in Chapter Four of the Plan; "Employment Areas are places of business and economic activity. Uses that support this function consist of: offices, manufacturing, warehousing, distribution, research and development facilities, utilities, media facilities, parks, hotels, retail outlets ancillary to the preceding uses, and restaurants and small scale stores and services that serve area businesses and workers".

ZONING

The Zoning By-law implements the Official Plan. It is a site-specific document that governs and controls the maximum height, density and form of development on any given site.

On August 27, 2010 the City of Toronto enacted a new city-wide Zoning By-Law (No. 1156-2010) to replace the individual By-Laws from the former Cities of York, North York, Scarborough, Etobicoke, Toronto and the Borough of East York.

However, the subject property is continued to be governed by the former City of Scarborough Zoning By Law No. 24982, as amended. According to the Zoning By-Law, the zoning designation for the subject property is a mixed "M - Industrial". Permitted uses under the designation include day nurseries, educational and training facilities, industrial uses, offices (excluding medical & dental), places of worship, and recreational uses.

The performance standards applicable to the subject are:

8)	Maximum gross floor area of 0.5 times the lot area
913)	Minimum front yard setback of 3 metres
1002)	Minimum rear yard setback of 7.5 metres (14 metre setback for Highway 401)
1054)	Minimum side yard setback of 3 metres
1420)	Parking is permitted abutting the Highway 401 frontage with a landscaped buffer

CONCLUSION

Based on our investigations, the subject property appears to be a legal and conforming use according to existing land use control regulations. However, we suggest the reader verify this status with the City of Toronto's Planning and Zoning Departments.

DESCRIPTION OF IMPROVEMENTS

The subject site is currently improved with a large industrial building. The building, originally constructed as a single-user industrial building in the late 1970's and expanded in 1984, was previously the Canadian head office for Honda Canada. According to the information provided the building contains a total leasable area of 257,622 square feet including 65,160 square feet of office space on two floors. There is also a 22,081 square foot metal frame and plywood floor storage mezzanine in the plant area, resulting in a total area for the building is 279,703 square feet.

We have relied upon a physical inspection in order to detail the basic construction, the interior accommodation and finish, and the building services. Pertinent details are included below. Plans for the first and second floor of the building as well as photographs of the exterior and interior of the improvements are located in Addenda "A".

CONSTRUCTION

SUPERSTRUCTURE:	Steel frame and concrete/masonry construction.
EXTERIOR:	The perimeter walls are a mixture of precast concrete panels, metal panels and concrete blocks.
	The front office has double glazed windows and entry doors in aluminium frames.
ROOFING:	Flat metal deck roof structure with build-up tar and gravel roof cover.
FLOORING:	Poured concrete slab on grade and for the second floor office component.
HEATING & COOLING:	The building has a full heating and air conditioning system utilizing roof mounted HVAC units.
CLEAR HEIGHT:	64,818 square feet @ 40 feet and 132,462 square feet @ 23 feet

ACCOMMODATIONS/BUILDING SERVICES

- The 2-storey front office component contains 65,160 square feet (23% of the building). The areas have a standard finish including a mixture of vinyl & ceramic tile and broadloom flooring; painted drywall perimeter and partitioning walls; and acoustic tile ceilings with florescent lighting. The office component contains private offices, open areas, a dedicated server room, a boardroom, a cafeteria and restrooms.
- The rear warehouse area is unfinished, with an open deck ceiling with florescent and halide lighting, concrete block/panel perimeter walls, and a poured concrete floor. The rear 40 foot clear section features a floor-to-ceiling rack system with built in sprinklers and an in-floor guidance system.
- The warehouse area also features a restroom area with receiving/shipping offices and a second floor lunchroom/cafeteria, as well as enclosed garbage and hazardous materials storage areas.
- The building features 9 internal truck level doors and 3 drive-in doors.
- Main electrical service of 2,500 amp/600 volt. The building is fully sprinklered.

SITE IMPROVEMENTS

- There are concrete slab walkways that extend along the front elevation of the building. The remainder of the site is landscaped and paved for access and parking purposes.
- The subject site is landscaped with trees, shrubbery and sodded lawn areas across the road frontage and

along the Highway 401 frontage.

- There are four ingress/egress points for access off Milner Avenue.
- The subject site contains approximately 335 parking spaces along the east and south elevations.

SUMMARY

The subject building appears to be structurally sound and considered to be in good condition. No structural survey was carried out; mechanical services and electrical equipment were not tested. We are not qualified to perform this service. During our inspection on January 28, 2011 the subject appeared to be in good condition, functional and well maintained.

Renovations were not yet underway at the time of inspection. Upon completion of the renovations, the subject building is assumed to contain functional office/industrial accommodation.

HIGHEST AND BEST USE

Fundamental to the concept of value is the principle of highest and best use which may be defined as that use of land which is most likely to produce the greatest net return to land over a given period of time. Interpretation of the foregoing includes the realization that, in addition to the property being physically adaptable for a specific use, there must be a demand and such use must be legally permissible through government land use regulations.

ANALYSIS

The subject property comprises a 13.62 acre (5.51 hectare) parcel of land, improved with a single-tenant industrial building having a total leasable area of 257,622 square feet, including 65,160 square feet of finished office area on 2 floors. In determining the highest and best use of the property consideration has been given to the following:

- The subject building is currently vacant, but the majority of the building has been leased to new occupants. The subject is considered to offer office/industrial accommodation similar to that found within the subject area. The subject improvements appear to be in a good state of repair and well maintained.
- The subject is 78.6% leased to two tenants (one related to the owner) as at the effective date of this appraisal and upon completion of the renovations, will be occupied. It will offers good office/industrial accommodation similar to that found within the area.
- The clear ceiling height in the warehouse area is 40 feet for a 64,818 square foot portion and 23 feet for the remainder of the warehouse (132,462 square feet). The building features 9 internal truck level doors and 3 drive-in doors.
- The subject has a lot size of 593,290 square feet and a total ground floor area of 229,860 square feet, resulting in lot coverage of 38%. The current zoning designation allows for maximum site coverage of 50% of the lot area. The remainder of the site is landscaped or used for parking and access purposes. The property owner plans to build additional parking along the building's western elevation, negating any additional building density that may be available.
- The building, and the industrial use, appears to be a legal and conforming use pursuant to the "M" zoning designation. Adequate on-site parking appears to be provided, and the property appears legal and is easily accessible. The proposed commercial uses also appear to be legal and conforming.
- The property is located within an area of mostly established industrial and service-commercial development, with residential subdivisions nearby.

SUMMARY

Based on the investigations carried out, and the above analysis, it is our opinion that the highest and best use of the property is the continuation of the proposed commercial/industrial uses. As vacant land, it is our opinion that the highest and best use of the property would be for similar development, in accordance with prevailing land use regulations.

APPROACH TO VALUE

The prospective market value of the subject property is contingent upon a number of factors such as location, replacement cost, physical condition and utility of the improvements, the market climate and general economic conditions. In the valuation process, these factors are incorporated into three approaches to value.

(1) The **Income Approach** is one in which the value is estimated by capitalizing the net rental which the property can reasonably be expected to produce over the remaining economic life of the improvements.

(2) In the **Cost Approach**, the land is valued as if vacant, and to this amount is added the estimated cost of reproduction of the improvements, less wear and tear, deterioration, functional and economic obsolescence.

(3) The **Direct Comparison Approach** requires an estimate based on a comparison of sales of similar properties.

Given the assumed use and occupancy, the Income Approach to value has primarily been relied upon. Reference to comparable sales has also been made in order to substantiate the value estimate by the Income Approach, as well as parameters utilized in the income analysis. Our valuation assumes the renovations have been completed and that the tenants have occupied their spaces and are paying rent in accordance with their leases.

The Cost Approach has not been used given that current costs are not considered representative of prevailing market values and the fact that the Cost Approach is not a recognized manner in which market value is determined by most potential purchasers associated with properties similar to the subject.

INCOME APPROACH

For the purpose of this appraisal we have reviewed financial information made available with respect to the subject property, including a rent roll, copies of lease summary documents, and the current operating budget. Based on this review relevant details of the income and expenses are outlined below.

TENANCY

As of the effective date of this appraisal the subject property is assumed to have been 78.6% leased by 2 tenants, including 1 tenant related to the property owner. The subject contains 55,160 square feet of vacant office space on two levels. We have reviewed information regarding the projected income for the subject property, including the lease agreements for the tenants. Based upon this information and assuming the tenants have occupied their spaces and are paying rent in accordance with their leases, we offer the following details for the projected income for the property. Our analysis assumes the office space is leased at market rental rates and no deductions for leasing costs have been considered.

Consolidated Group of Companies Canada Inc.

Area	:	89,871 square feet
Term	:	5 years from April 1, 2011 to March 31, 2016
Minimum Rent	:	Years 1-3 @ $471,822.75 per year ($5.25 psf) net Years 4-5 @ $516,758.25 per year ($5.75 psf) net
Remarks	:	**This tenant is a company related to the property owner**

Metro Logistics Canada Inc.

Area	:	112,591 square feet
Term	:	5 years from April 1, 2011 to March 31, 2016
Minimum Rent	:	Year 1 @ $591,102.75 ($5.25 psf) net Year 2 @ $619,250.50 ($5.50 psf) net Year 3 @ $647,398.25 ($5.75 psf) net Year 4 @ $675,546.00 ($6.00 psf) net Year 5 @ $703,693.75 ($6.25 psf) net
Remarks	:	The tenant has one 5-year renewal option at a fair market rental rate

RECOVERY INCOME

All the leases provide for rent on a fully net basis, whereby the tenant is responsible for their base rent, plus a proportionate share of realty taxes, operating costs and utilities. The vacant space is assumed to be leased on a similar net basis.

VACANCY/CREDIT LOSS ALLOWANCE

From the potential gross income, provision has to be made for possible vacancy and collection loss over the term of the investment. In determining a vacancy rate applicable to the subject, we have considered the following:

- The overall vacancy rate within the office market of the Toronto CMA is currently 7.8%. The overall vacancy rate within the Scarborough area is higher, at 10.6%.
- The overall vacancy rate within the industrial market of the Toronto CMA is 6.3%. Within the former City of Scarborough, the industrial vacancy rate is reported to be 6.6%.
- Our observation indicates that occupancy levels for properties in the vicinity of the subject are high.

The subject property is currently 78.6% leased by one industrial user and a company related to the property owner. Taking into account the character of the area and current occupancy level of the subject property, an overall vacancy rate of 7.5% is considered reasonable for the subject in the current market.

TAXES AND OPERATING COSTS

According to the information provided, the subject's realty tax expense for 2010 was approximately $294,000 ($1.14 psf). An inflationary increase of 2% is estimated for 2011, bringing the realty taxes to $299,880 ($1.16 psf).

Operating costs for the subject property include utilities, insurance, and maintenance. We have reviewed the 2008, 2009 and 2010 expenses for the property as operated by Honda and a summary of this statement is presented below.

Expenses	Actual 2008	Actual 2009	Actual 2010	Estimated 2011
Elevator	$5,500	$5,812	$6,000	$6,000
HVAC	$42,500	$45,000	$48,500	$25,000
Landscaping	$30,400	$31,020	$31,796	$32,000
Maintenance	$21,952	$22,400	$22,960	$24,000
Waste	$10,584	$10,800	$11,070	$12,000
Utilities	$607,737	$587,918	$590,000	$562,000
Total Expenses	**$718,673.00 ($2.79 psf)**	**$702,950.00 ($2.73 psf)**	**$710,326.00 ($2.76 psf)**	**$661,000.00 ($2.57 psf)**

Adding the estimated 2011 realty taxes of $1.16 per square foot and the estimated 2011 operating costs of $2.57 per square foot indicates an average total cost of $3.73 per square foot. The estimated 2011 expenses are slightly lower than that of previous years, due to the higher demands and usage by the previous occupant, Honda.

In addition to the actual operating costs associated with the subject, a structural and miscellaneous allowance of 1.0% of the effective gross income is deducted. This is considered appropriate to account for any other expenses associated with the property.

MARKET RENT

In order to estimate whether or not the existing leases in the subject property are at approximate market rental levels and to determine market renal rates for the vacant space, we have reviewed and relied on leasing information presented in the chart on the following page for rents of industrial and office rentals in the area of the subject.

SCHEDULE OF COMPARABLE LEASE DATA				
Index No (Date)	Address	Area in sqft	Net Rent PSF	Remarks
Office				
R-1 (2010)	3660 Midland Avenue, #500 Toronto (Scarborough)	11,800	$13.00	Fifth floor office unit TMI @ $11.34 psf
R-2 (2011)	2425 Eglinton Avenue East, #206 Toronto (Scarborough)	2,318	$11.50	Second floor office unit TMI @ $15.71 psf
R-3 (2011)	100 Valleybrook Drive Toronto (North York)	39,769	Yrs 1-5 @ $10.50 Yrs 6-10 @ $12.00	Freestanding office building TMI @ $4.23 psf
R-4 (2011)	5900 Finch Avenue East Toronto (Scarborough)	10,177	Yr 1 @ $10.00 Yr 2 @ $10.50	Office space in industrial building TMI @ $5.66 psf
R-5 (2010)	150 Bridgeland Avenue Toronto (North York)	12,006	Yr 1 @ $9.00 Yr 2 @ $11.00 Yr 3 @ $12.00 Yr 4 @ $13.00 Yr 5 @$14.00	Office unit TMI @ $12.50 psf
R-6 (2010)	1457 McCowan Road, #218 Toronto (Scarborough)	3,927	Yr 1 @ $8.50 Yrs 2-3 @ $9.50 Yrs 4-5 @ $10.00	Second floor office unit TMI @ $12.00 psf
R-7 (2010)	305 Milner Avenue, #210 Toronto (Scarborough)	2,440	$7.75	Second floor office unit TMI @ $14.04 psf
Industrial				
R-8 (2010)	20 Norelco Drive Toronto (North York)	709,811	Yrs 1-5 @ $6.00	TMI @ $2.98 psf 21' & 32' clear 2% office
R-9 (2010)	12 Milner Avenue Toronto (Scarborough)	11,597	Yrs 1-5 @ $5.70	TMI @ $3.95 psf 14' clear 10% office
R-10 (2011)	55 Judson Street Toronto (Etobicoke)	10,600	$5.50	TMI @ $3.10 psf 13' clear 38% office
R-11 (2010)	690 Garyray Drive Toronto (North York)	13,266	$5.00	TMI @ $4.10 psf 18' clear 20% office
R-12 (2011)	5900 Finch Avenue East Toronto (Scarborough)	113,845	Yrs 1-2 @ $4.75 Yrs 3-4 @ $4.85 Yr 5 @ $5.00	TMI @ $4.05 psf 25' clear 36% office
R-13 (2010)	31 Canadian Road Toronto (Scarborough)	25,236	Yrs 1-3 @ $4.65	TMI @ $2.62 psf 26' clear 10% office
R-14 (2010)	1060 Tapscott Road Toronto (Scarborough)	78,410	Yr 1 @ $4.15 Yr 2 @ $4.30 Yr 3 @ $4.50 Yr 4 @ $4.65 Yr 5 @ $4.85	TMI @ $2.60 psf 22' clear 37% office

Rentals 1 to 7 involve rentals for typical office space considered comparable to the subject property. The spaces are similar in location to the subject and indicate actual rental rates between $7.75 per square foot (net) and $13.00 per square foot (net). The noted rents pertain to office space in buildings located in the vicinity of the subject property. The characteristics of the comparables are considered generally similar to the subject. The subject property is in good condition and with a good location, having Highway 401 exposure. The office

space in the subject is currently vacant, with an asking rent of $12.00 per square foot (net). Based upon the rental information, particularly Indices R-3 & R-4 and the current asking rate, a rate of $10.00 per square foot (Net) is considered reasonable and will be utilized for the vacant office space.

Rentals 8 to 14 involve rentals for industrial space considered comparable to the subject property. The spaces are similar in location to the subject and indicate actual rental rates between $4.15 per square foot (net) and $6.00 per square foot (net). The noted rents pertain to freestanding buildings and industrial units located in the vicinity of the subject property. The characteristics of the leases are considered generally similar to the subject. The subject property features a high clear ceiling height and good location with Highway 401 exposure. The rents in the subject currently being achieved are $5.25 per square foot (net). Based upon the rental information, existing rents are deemed to be reasonable and achievable in the current market. Although the lease to *Consolidated Group* is not arm's-length, their rental rate at $5.25 psf (net) is considered reasonable and will be utilized in this report.

TOTAL INCOME, RECOVERIES AND ADMINISTRATION/MANAGEMENT FEES

The chart below calculates the total base rent and additional rent collected from the tenants, as well as the total potential gross rent. Reference to this schedule has been made in order to aid in the calculation of the total rental income to be used in calculating the net operating income on the Stabilized Income & Expense Statement to be capitalized in the Overall Capitalization Rate Method.

TENANT	AREA (SQFT)	RENT PSF	ANNUAL BASE RENT	ADD. RENT PSF	TOTAL ADD. RENT RECOVERIES	TOTAL GROSS RENT
Consolidated Group	89,871	$5.25	$471,882.75	$3.73	$335,218.83	$807,101.58
Metro Logistics	112,591	$5.25	$591,102.75	$3.73	$419,964.43	$1,011,049.10
Vacant Office Space	55,160	$10.00	$551,600.00	$3.73	$205,746.80	$757,346.80
Total	**257,622**		**$1,614,585.50**		**$960,930.06**	**$2,575,497.48**

STABILIZED INCOME & EXPENSE STATEMENT

Based on the preceding discussion and analysis, a Stabilized Income and Expense Statement has been prepared for the property. This statement is presented below.

Stabilized Income and Expense Statement
715 Milner Avenue, Toronto

Income		
Base Rental Income	$1,614,586	
Additional Rent Recoveries	$960,930	
Potential Gross Income	$2,575,496	
Less Vacancy Allowance @ 7.5%	$193,162	
Effective Gross Income		$2,382,334
Expenses		
Realty Taxes	$299,880	
Operating Costs	$661,000	
Non-rec. misc. allowance @ 1.0%	$23,823	
Total Expenses		$984,703
Net Operating Income		**$1,397,631**

OVERALL CAPITALIZATION RATE ANALYSIS

In estimating the overall capitalization rate applicable to the subject, we have analysed recent sales of similar investment properties. Emphasis has been given to sales of office and industrial properties throughout the Greater Toronto Area. For analysis purposes, pertinent details are summarized in the chart below.

INDEX (DATE)	ADDRESS	CONSIDERATION (PRICE PSF)	BLDG SIZE (OCCUPANCY %)	AVG. NET RENT PSF	STABILIZED OCR
1 (1/11)	200 Westcreek Boulevard Brampton & 1205 Corporate Drive Burlington	$27,735,000 ($129.30)	214,500 sqft (100%)	$9.24	6.7%
2 (12/10)	55 & 65 Carrier Drive Toronto (Etobicoke)	$7,350,000 ($58.13)	126,359 sqft (100%)	$4.00	6.5%
3 (12/10)	500-510 Coronation Drive Toronto (Scarborough)	$4,512,000 ($41.47)	108,798 sqft (100%)	$3.61	8.2%
4 (10/10)	53-83 Bakersfield Street Toronto (North York)	$4,800,000 ($47.66)	100,720 sqft (100%)	$3.58	7.5%
5 (7/10)	8550 Airport Road Brampton	$23,700,018 ($89.77)	264,018 sqft (100%)	$6.87	7.3%
6 (6/10)	5477-5497 Gorvan Drive Mississauga	$5,425,000 ($72.87)	74,450 sqft (100%)	$5.40	7.0%
7 (5/10)	199 Four Valley Drive Vaughan	$34,750,800 ($346.13)	100,398 sqft (100%)	$23.70	6.8%
Subject	**715 Milner Avenue Toronto (Scarborough)**	--	**257,622 sqft (78.6%)**	**$6.27 (estimate)**	--

The seven sales occurred between May 2010 and January 2011. The sales indicate a range in overall capitalization rates from 6.5% to 8.2%, with an average rate of 7.13%. The indicated rates of return have been based on the stabilized net operating income, after allowances have been made for normal vacancy and non-recoverable costs (similar to the income analysis of the subject). Photographs of the comparables are included with the description/analysis.

INDEX 1 – 200 WESTCREEK BOULEVARD, BRAMPTON & 1205 CORPORATE DRIVE, BURLINGTON

- The January 2011 portfolio sale of two freestanding, single-tenant industrial buildings.
- 200 Westcreek Boulevard is an 84,900 square foot building with a 3,100 square foot two-storey office component and a 24 foot clear ceiling in the warehouse. The building was built in 2000 and is fully occupied by DHL Worldwide Express.
- 1205 Corporate Drive is a 129,600 square foot building with a 39,000 square foot two-storey office component and a 28 foot clear ceiling in the warehouse. The building was built in 2000 and is fully occupied by Hunter Amenities International.
- The combined net operating income for the two properties is equivalent to $9.24 per square foot (net), equivalent to 6.7% return on the total sale price.
- In comparing this sale to the subject, consideration is given to the comparable's superior accommodations,

full occupancy and national tenancy.
- The 6.7% rate is considered to be below the rate applicable to the subject property.

INDEX 2 – 55 & 65 CARRIER DRIVE, TORONTO (ETOBICOKE)

- November 2010 sale of two single-tenant industrial buildings constructed in 1976. The property indicated a stabilized capitalization rate of 6.5%.
- The building contain a total area of 126,359 square feet with a 27,300 sqft (22%) office component, a 21.5 foot clear ceiling height and 47% site coverage.
- The property is fully leased to one tenant, Club Coffee, a subsidiary of Nestle Canada, at a current rate of $4.00 psf net.
- In comparing this sale to the subject, consideration is given to the comparable's full occupancy, smaller size and superior national tenancy.
- Overall, an upward adjustment is required to the indicated 6.5% capitalization rate.

INDEX 3 – 500-150 CORONATION DRIVE, TORONTO (SCARBOROUGH)

- October 2010 sale of a two multi-tenant industrial buildings constructed in 1975. The property indicated a stabilized capitalization rate of 8.2%.
- The property comprises a total area of 108,798 square feet with a 7% office component, 41% site coverage and a 19 foot clear ceiling height.
- In comparing this sale to the subject, consideration is given to the comparable's smaller size and full occupancy.
- The 8.2% rate is considered to be below the rate applicable to the subject property.

INDEX 4 – 53-83 BAKERSFIELD STREET, TORONTO (NORTH YORK)

- October sale of a smaller, 2 tenant industrial building constructed in 1973. The property indicated a stabilized capitalization rate of 7.5%.
- The property comprises a 100,720 square foot industrial building leased to two tenants, with 10% office, 16-18 foot clear height and 57% site coverage.
- In comparing this sale to the subject, consideration is given to the comparable's smaller size and full occupancy.
- Overall, the indicated captializaiton rate of 7.5% is considered to be below the rate applicable to the subject.

INDEX 5 – 8550 AIRPORT ROAD, BRAMPTON

- Recent sale (July 2010) of a single-tenant industrial building located on the west side of Airport Road, north of Steeles Avenue East.
- The property contains a gross floor area of 264,018 square feet, including nearly 40,000 square feet of office area (15%). The building was originally constructed in 1981 and expanded in 2004.
- At the time of the sale the property was leased by Giftcraft, pursuant to a 12-year lease (to August 31, 2019) with annual escalations.
- In comparing this sale to the subject, consideration is given to the comparable's long term tenancy.
- This sale is considered indicative of current rates for modern, industrial investment properties.
- The 7.3% rate is considered to be below the rate applicable to the subject property.

INDEX 6 – 5477-5497 GORVAN DRIVE, MISSISSAUGA

- June 2010 sale of a single-tenant industrial building constructed in 1983. The property indicated a stabilized capitalization rate of 7.0%.
- The property comprises a 74,450 square foot industrial building with a 10% office component on two floors, 49% site coverage and a 22 foot clear ceiling height.
- In comparing this sale to the subject, consideration is given to the comparable's strong lease covenant (Pet Valu) and full occupancy.
- The 7.0% rate is considered to be below the rate applicable to the subject property.

INDEX 7 – 199 FOUR VALLEY DRIVE, VAUGHAN

- May 2010 sale of a modern (2007) 2-storey office building located in the City of Vaughan.
- The property comprises a 100,398 sqft single-tenant office building. The building contains a 20,000 sqft second storey.
- The property fully occupied by Cara Operations, pursuant to a 20-year lease that expires on November 30, 2028. Current rent is $23.70 psf net, with escalations throughout the term and pre-negotiated renewal terms.
- In comparing this sale to the subject, consideration is given to the comparable's newer construction, full occupancy and superior national tenancy.
- This sale is considered indicative of current rates for modern, office investment properties leased to a national tenant.
- Overall, the 6.8% rate indicated is considered to be lower than the rate applicable to the subject.

SUMMARY

In estimating a capitalization rate for the subject, we have considered the following:

- The overall capitalization rates indicated by the comparable sales, prior to adjustments, are between 6.5% to 8.2%, with an average rate of 7.13%.
- The subject is currently 78.6% leased by two tenants, including one related to the property owner.
- The subject features an estimated net rent per square foot of $6.27, near the middle of the range illustrated by the comparables.
- The subject is a property with all new tenancy resulting in some uncertainty about the security of the income stream an upward adjustment to the indicated rate is warranted.
- After adjustments, the range in capitalization rates indicated for the subject is estimated at between 8.25% and 8.75%.
- Given the subject property's current vacancy, prospective tenancy, large size, and non-national tenants, a rate at the upper end of the range, or 8.75%, is considered appropriate.

Utilizing the 8.75% rate, applied to the subject's stabilized net operating income, results in a value estimate as follows:

Estimated Net Income of $1,397,631 capitalized @ 8.75%	=	$15,972,925
Rounded to:		$15,970,000

VALUE BY THE OVERALL CAPITALIZATION RATE METHOD ... $15,970,000

DIRECT COMPARISON APPROACH

The Direct Comparison Approach is a valuation method whereby the property being appraised is compared with similar properties that have recently been sold or offered for sale. The assumption is that if the subject had been exposed to the market, it would have been in competition with the comparable property, dealing with the same type of purchaser under similar market conditions. Since no two properties are completely alike, adjustments must be made to compensate for differences between the comparable and the subject property. In arriving at a value conclusion by this method, the greatest weight is given to the sales of truly comparable properties sold at or nearest the effective date of appraisal in order to reflect comparable economic conditions.

In estimating the market value of the subject property by the Direct Comparison Approach we have analysed recent sales of similar industrial properties in the City of Toronto. Pertinent details with respect to these sales are summarized in the chart below.

INDEX (DATE)	ADDRESS	CONSIDERATION	BUILDING SIZE (SITE COVERAGE)	CLEAR HEIGHT (% OFFICE)	PRICE PSF
1 (12/10)	500-510 Coronation Drive Toronto (Scarborough)	$4,512,000	108,798 sqft (41%)	12 to 19 ft (7%)	$41.47
2 (12/10)	55 & 65 Carrier Drive Toronto (Etobicoke)	$7,350,000	126,359 sqft (47%)	21.5 ft (22%)	$58.17
3 (12/10)	440-444 Passmore Avenue Toronto (Scarborough)	$11,500,000	187,350 sqft (49%)	20-22 ft (10%)	$61.38
4 (10/10)	1100 Birchmount Road Toronto (Scarborough)	$3,500,000	100,800 sqft (47%)	14 ft (16%)	$34.72
5 (10/10)	53-83 Bakersfield Street Toronto (North York)	$4,800,000	100,720 sqft (58%)	16 to 20 ft (9%)	$47.66
6 (7/10)	2 Champagne Drive Toronto (North York)	$9,700,000	249,400 sqft (55%)	18 ft (11%)	$38.89
7 (7/10)	450 Kipling Avenue Toronto (Etobicoke)	$11,500,000	549,887 sqft (47%)	26 ft (8%)	$20.91
Subject	**715 Milner Avenue Toronto (Scarborough)**	**--**	**257,662 sqft (38%)**	**23 & 40 ft (23%)**	**--**

The seven sales occurred between July 2010 and December 2010. As noted above, the comparables have been analysed on the basis of the indicated price per square foot of building area. On this basis the sales show a range in values from $20.91 per square foot to $61.38 per square foot, with an average rate of just over $43.00 per square foot. For the purpose of this appraisal, a photograph along with a brief discussion of the individual sales, including a discussion of the adjustments made to allow for differences between the comparables and the subject, is presented as follows.

INDEX 1 – 500-510 CORONATION DRIVE indicates a price per square foot of $41.47 per square foot. This is the December 2010 sale of a two multi-tenant industrial buildings located south of the subject. Upward adjustments to the noted rate are made for the subject's larger office component, higher clear ceiling height and superior location. A partially offsetting downward adjustment is required due to the comparable's smaller size.

INDEX 2 – 55 & 65 CARRIER DRIVE indicates a price per square foot of $58.17 per square foot. This is the December 2010 sale of a two singe-tenant industrial buildings located north-west of the subject. Upward adjustments to the noted rate are made for the subject's higher clear ceiling height and superior location. A partially offsetting downward adjustment is required due to the comparable's smaller size.

INDEX 3 – 440-444 PASSMORE AVENUE indicates a price per square foot of $61.38 per square foot. This is the December 2010 sale of a 3-building industrial complex located north-west of the subject. Upward adjustments to the noted rate are made for the subject's higher clear ceiling height, larger office component and superior location. Partially offsetting downward adjustments are required due to the comparable's newer age and smaller size.

INDEX 4 – 1100 BIRCHMOUNT ROAD indicates a price per square foot of $34.72 per square foot. This is the October 2010 sale of a single-tenant industrial building located south-west of the subject. Upward adjustments to the noted rate are made for the subject's higher clear ceiling height, superior location and larger office component. A partially offsetting downward adjustment is required due to the comparable's smaller size.

INDEX 5 – 53-83 BAKERSFIELD STREET indicates a price per square foot of $47.66 per square foot. This is the October 2010 sale of a multi-tenant industrial building located north-west of the subject. Upward adjustments to the noted rate are made for the subject's higher clear ceiling height, superior location and larger office component. A partially offsetting downward adjustment is required due to the comparable's smaller size.

INDEX 6 – 2 CHAMPAGNE DRIVE indicates a price per square foot of $38.89 per square foot. This is the July 2010 sale of a multi-tenant industrial building located north-west of the subject. Upward adjustments to the noted rate are made for the subject's newer age, higher clear ceiling height, and larger office component.

INDEX 7 – 450 KIPLING AVENUE indicates a price per square foot of $20.91 per square foot. This is the July 2010 sale of a single-tenant industrial building located south-west of the subject. Upward adjustments to the noted rate are made for the subject's newer age, smaller size, superior location and larger office component.

SUMMARY

On the basis of the foregoing sales analysis, it is our opinion that the market value of the subject property can be based on a rate between $55.00 and $65.00 per square foot of leasable area. A rate in the middle of the range or $66.00 per square foot is considered reasonable and corresponds to a value estimate as follows:

257,622 square feet @ $60.00 per square foot	=	$15,457,320
Rounded to:		$15,460,000

VALUE BY THE DIRECT COMPARISON APPROACH ... $15,460,000

RECONCILIATION & FINAL VALUE ESTIMATE

The value estimates for the subject property, utilizing the two approaches to value, are as follows:

Value by the Income Approach	$15,970,000
Value by the Direct Comparison Approach	$15,460,000

The indicated values for the subject are similar, but the subject property is an income producing property and the primary method to use in valuing similar properties is the Income Approach.

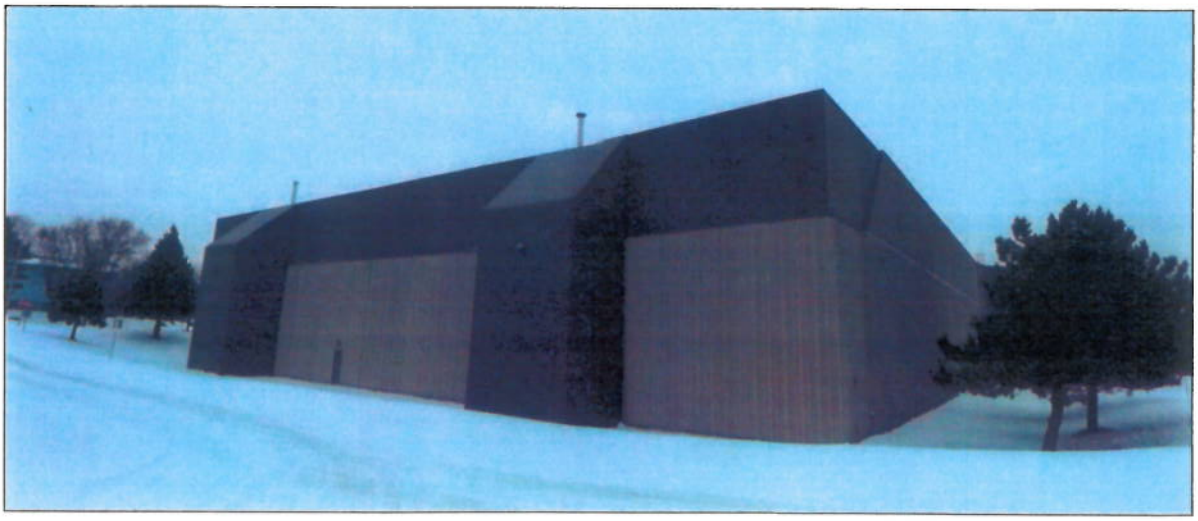
Adjustments made to the comparable sales in the Direct Comparison Approach have been based upon the differences in building characteristics, location, condition and size. However, the Direct Comparison Approach is only considered to provide a general indication of value and provides support to the value of the subject property by the Income Approach.

Having considered the data investigated, and all other factors which may affect value, it is our opinion that the market value of the subject property, as of January 28, 2011, is:

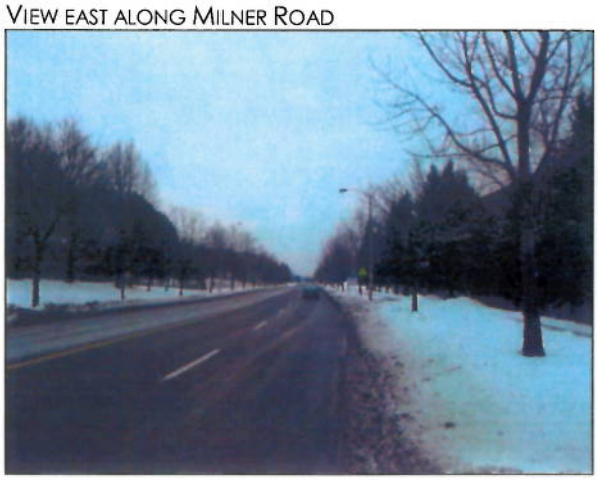
FIFTEEN MILLION NINE HUNDRED AND SEVENTY DOLLARS
($15,970,000)

MARKETING TIME

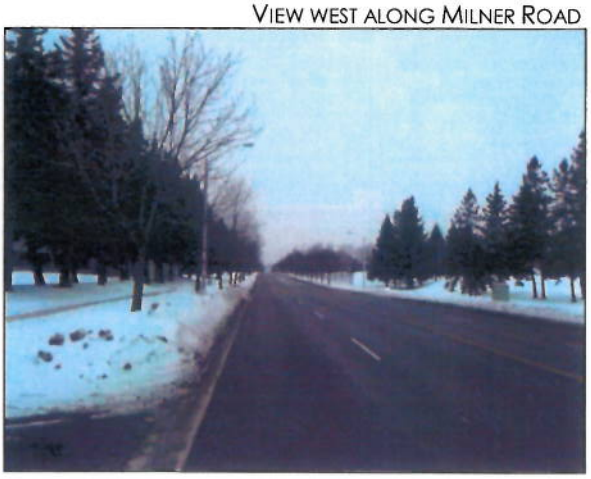
Assuming that there is no change in the current market conditions, and the subject is properly marketed, it is our opinion that the time required to realize the indicated value estimate is 6 to 9 months.



VIEW EAST ALONG MILNER ROAD

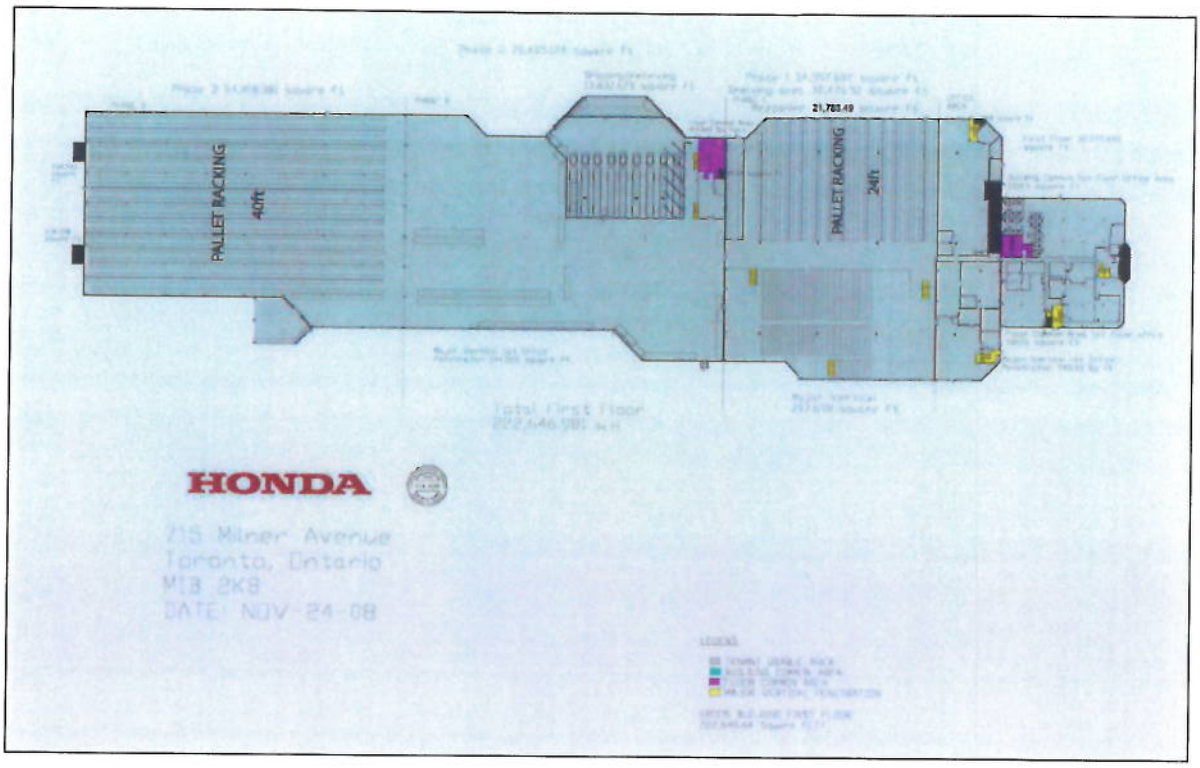


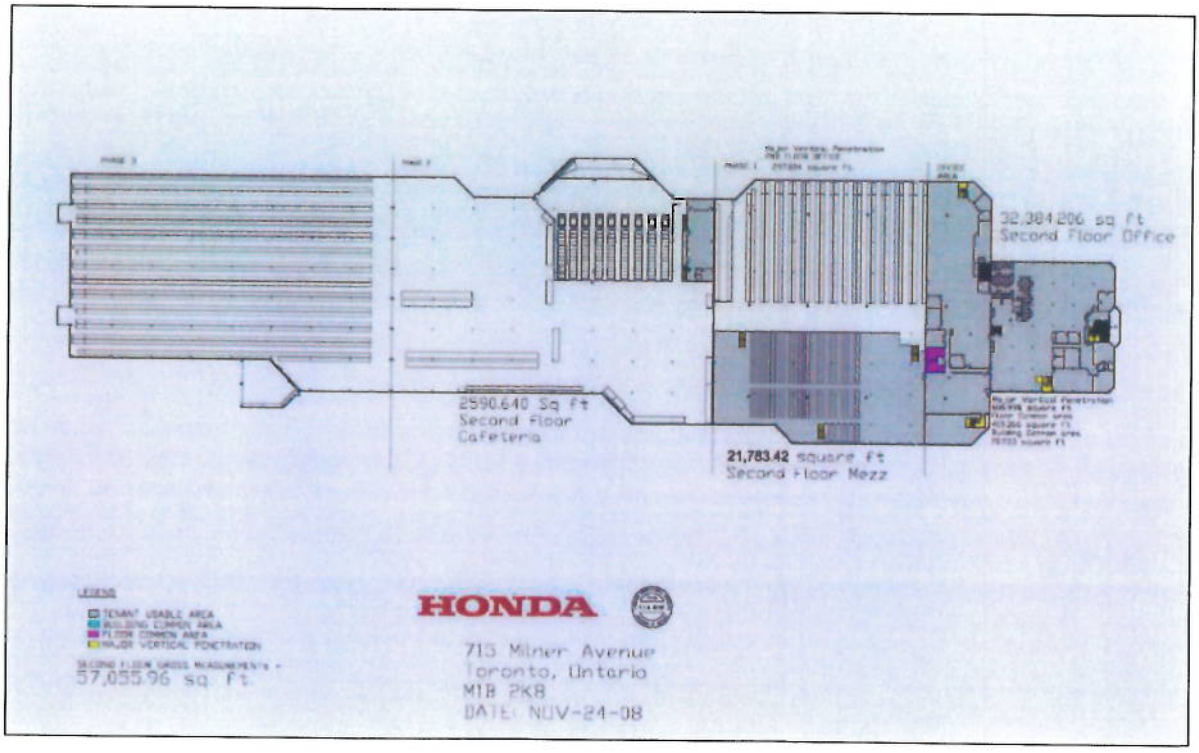
VIEW WEST ALONG MILNER ROAD




SHIPPING
2
3
4


EC


PALLET RACKING
40ft
21,783.49
PALLET RACKING
24ft
HONDA
715 Milner Avenue
Toronto, Ontario
M1B 2K8
DATE: NOV-24-08


32,384.206 sq ft
Second Floor Office
2590.640 Sq ft
Second Floor
Cafeteria
21,783.42 square ft
Second Floor Mezz
57,055.96 sq ft
HONDA
715 Milner Avenue
Toronto, Ontario
M1B 2K8
DATE: NOV-24-08

1. This report is prepared at the request of Consolidated Group of Companies for the purpose of an appraisal of the market value of the subject property. It is not reasonable for any other person or company other than Consolidated Group of Companies and/or 2244446 Ontario Inc. to rely upon this appraisal without first obtaining written authorization from this appraiser. There may be qualifications, assumptions or limiting conditions in addition to those set out below relevant to that person's identity or his intended use. This report is prepared on the assumption that no other person will rely on it for any other purpose and that all liability to all such persons is denied.

2. While expert in appraisal matters, the author is not qualified and does not purport to give legal advice. It is assumed that:

   (a) a legal description as set out herein is correct;
   (b) title to the property is good and marketable;
   (c) there are no encroachments, encumbrances, restrictions, leases or covenants that would in any way affect the valuation, except as expressly noted herein;
   (d) the existing use is a legally conforming use, which may be continued by any purchaser from the existing owner;
   (e) rights-of-way, easements or encroachments over the real property and leases or other covenants noted herein are legally enforceable.

   Because these assumptions have been made, no investigation, legal or otherwise, has been undertaken which would verify these assumptions except as expressly noted herein.

3. The author is not a qualified surveyor and no legal survey concerning the subject property has been provided. Sketches, drawings, diagrams, photographs, etc. are presented in this report for the limited purpose of illustration and are not to be relied upon in themselves.

4. The author is not qualified to give engineering advice. It is assumed that there are no patent or latent defects in the subject improvements, that no objectionable materials such as Urea Formaldehyde foam are present, and that they are structurally sound and in need of no immediate repairs, unless expressly noted within this report. No soil tests have been done, nor have tests been done of the heating, plumbing, electrical, air-conditioning or other systems and, for the purpose of this opinion, they are assumed to be in good working order.

5. No investigation has been undertaken with the local zoning office, the fire department, the building inspector, the health department or any other government regulatory agency unless such investigations are expressly presented to have been made in this report. The subject property must comply with such government regulations and, if it does not comply, its non-compliance may affect market value. To be certain of compliance, further investigations may be necessary.

6. Neither possession of this report nor a copy carries with it the right of publication, except for those rights granted in Paragraph 1.

7. Market data has been obtained in part from documents at the Land Registry Office, or as reported by the real estate board. As well as using such documented and generally reliable evidence of market transactions, it was also necessary to rely on hearsay evidence.

8. Because market conditions, including economic, social and political factors, change rapidly and, on occasion, without warning, the market value expressed as of the date of this appraisal cannot be relied upon to estimate the market value of any other date except with further advice of the appraiser.

9. The compensation for services rendered in this report does not include a fee for court preparation or court appearances, which must be negotiated separately. However, neither this nor any other of these limiting conditions is an attempt to limit the use that might be made of this report should it properly become evidence in a judicial body which will decide the use of the report which best serves the administration of justice.

10. Our appraisal assumes that the subject property, both its land and building components, are free of toxic waste, fill or hazardous materials that may be environmental contaminants. This statement is made as the result of inspection as real estate appraisers and not environmental consultants. An environmental audit of the property is needed to verify its environmental status and this is beyond our professional expertise.

11. It is imperative that the reader or any other interested party be aware that the Appraiser did not inspect the premises for fire detection or smoke detection systems, or for the presence of carbon monoxide detectors, nor did the Appraiser inspect the condition of such equipment, if present. The Appraiser takes no responsibility whatsoever for the lack of, or condition of, detection devices that may be located on the premises, nor does the Appraiser warrant compliance in any manner of such equipment, if present.

We certify that to the best of our knowledge and belief:

Louie Tragianis inspected the property at 715 Milner Avenue in the City of Toronto on January 28, 2011.

The statements of fact contained in this report are true and correct.

The reported analyses, opinions and conclusions are limited only by the reported assumptions and limiting conditions, and are our personal, unbiased professional analyses, opinions and conclusions.

We have no present or prospective interest in the property that is the subject of this report, and we have no personal interest or bias with respect to the parties involved.

Our compensation is not contingent upon the reporting of a predetermined value or direction in value that favours the cause of the client, the amount of the value estimate, the attainment of a stipulated result, or the occurrence of a subsequent event.

Our analyses, opinions and conclusions were developed, and this report has been prepared, in conformity with the Canadian Uniform Standards of Professional Appraisal Practice.

The Appraisal Institute of Canada has a mandatory Continuing Professional Development Program for designated members. As of the date of this report Brian J. Wagner and Louie Tragianis have fulfilled the requirements of the program.

No one provided significant professional assistance to the persons signing this report.

Having regard to all of the information contained in this appraisal report, it is our opinion that the market value of the appraised property, subject to the underlying assumptions and limiting conditions outlined in the report, as at January 28, 2011, is:

FIFTEEN MILLION NINE HUNDRED AND SEVENTY DOLLARS
($15,970,000)

Brian J. Wagner, BA, AACI, P.App

Dated: March 17, 2011

Louie Tragianis, BA, Candidate

Dated: March 17, 2011

MacKenzie Ray Heron & Edwardh

Real Estate Appraisers & Consultants

Toronto Hydro-Electric System Limited
EB-2014-0116
Technical Conference
Schedule J2.1
Appendix B
Filed: 2014 Nov 24
(69 pages)

December 13, 2011

Toronto Hydro
500 Commissioners Street
Toronto, ON
M4M 3N7

Attention: Mr. Kevin Lewis, Manager

Purchase Order A07087

Re: Appraisal of
715 Milner Avenue,
Toronto, Ontario

Dear Mr. Lewis:

As requested, we have enclosed two signed copies of our appraisal report.

Thank you for the opportunity to be of service to you and Toronto Hydro.

Best regards,

MacKenzie Ray Heron & Edwardh

John Cochrane
AACI, P. App.

Appraisal of:
Industrial Building

Located At:
715 MILNER AVENUE
Toronto, Ontario

Effective Date:
December 6, 2011

Report Date:
December 15, 2011

Prepared For:
Toronto Hydro

250 Dundas Street West
Suite 402
Toronto, Ontario
M5T 2Z5

www.mrhe.com

Phone: 416-591-1515
Fax: 416-591-1220

MacKenzie Ray Heron & Edwardh
Real Estate Appraisers & Consultants

December 15, 2011

Toronto Hydro
500 Commissioners Street
Toronto, ON
M4M 3N7

Attention: **Mr. Kevin Lewis**
Manager

Re: **Toronto Hydro P.O. # A07087**

Re: Appraisal of
715 Milner Avenue
Toronto, Ontario

Dear Mr. Lewis,

In accordance with your instructions we have completed our investigation and analysis of 715 Milner Avenue, Toronto, Ontario (the "**Subject**"), in order to estimate its current market value. The report has been prepared to assist Toronto Hydro in purchase considerations. You indicated that you require estimates of its current market value.

In the report that follows we have estimated the market value of the Subject property. The estimate of market value is based on market conditions existing as of the date of inspection and effective date of appraisal – December 6, 2011. The legal interest appraised is that of the "Fee Simple"[1] interest.

Market value is defined as: "The most probable price which a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently and knowledgeably, and assuming the price is not affected by undue stimulus."

[1] The "Fee Simple" interest is defined as absolute ownership unencumbered by any other interest or estate.

The Subject is comprised of an industrial building situated on a site of 13.65 acres:

- 715 Milner Avenue contains approximately 279,703 square feet. It comprises a warehouse of 192,462 square feet, which was built in two stages in 1978 and 1981, together with 65,160 square feet of office space on two floors at the east end of the building and a 22,081 square foot mezzanine area. The warehouse is a long rectangular building with ceiling height ranging from 23 to 40 feet.

The site is irregular in shape, comprising a strip of land no more than 425 feet wide, with frontage of approximately 1,687 feet along the south side of Milner Avenue, and 1,608 feet along the north side of Highway No. 401. It is located in Scarborough, between Neilson Road and Morningside Avenue. The site also contains a triangular piece of ravine land at the east end of the site.

Our value estimates are contingent upon the Subject (site and improvements) being free of environmental contaminants and/or other latent building or site conditions that may have an impact on value. Please note that the estimate of value may not be relied upon unless accompanied by the signed, original appraisal report. Furthermore, the section entitled Assumptions and Limiting Conditions is an integral part of the report and must be read. It is also subject to the following Extraordinary Limiting Condition: We did not obtain an opinion on the state of title or any of the encumbrances, and are not qualified in these legal matters and have not read all documents registered against the title.

This report has been produced in conformance with the Canadian Uniform Standards of Professional Appraisal Practice. All comments, opinions and conclusions are discussed and elaborated upon within the body of this report to the extent felt necessary to support the estimate of value. The report has been prepared for ***Toronto Hydro*** for acquisition consideration, and may not be used for any other purpose.

In our opinion the highest and best use of the Subject would be as developed with an industrial building.

The value estimate contained herein is a current market estimate based on historic sales data up until the effective date of appraisal. Single occupant industrial properties are in much demand as reported by the latest quarterly report by Insite and according to reports by real estate firms as commented upon within this report.

Having regard to the information, assumptions and analyses set forth in this report and based on an exposure time as outlined on page 13, we estimate the market value of the Subject as of December 6, 2011, to be:

FOURTEEN MILLION EIGHT HUNDRED THOUSAND DOLLARS

$14,800,000

Yours truly,

MACKENZIE, RAY, HERON & EDWARDH

John Cochrane
AACI, P. App.

TABLE OF CONTENTS

715 Milner Avenue

Subject viewed from Milner

Subject viewed from driveway off Milner

Trucking doors off Milner (exit)

Trucking doors off Milner (entrance)

Rear view of Subject (40′ height)

Rear view of Subject (40′ and 23′ height)

715 Milner Avenue

Rear view of Subject

Rear shipping (drive-in doors

Office section on easterly elevation

Main entrance to Subject

View along rear of Subject (401 to left)

Highway 401 looking south

715 Milner Avenue

Subject's grassed area to west of building

Lane along westerly elevation

Parking lot at easterly end of property

School opposite subject

Street scene on Milner Avenue

Main entrance and stairway

715 Milner Avenue

Open office area on ground floor

Open office area on ground floor

Cafeteria

Lunch room

Washroom

Washroom

715 Milner Avenue

Open office – second floor

Open office area – second floor

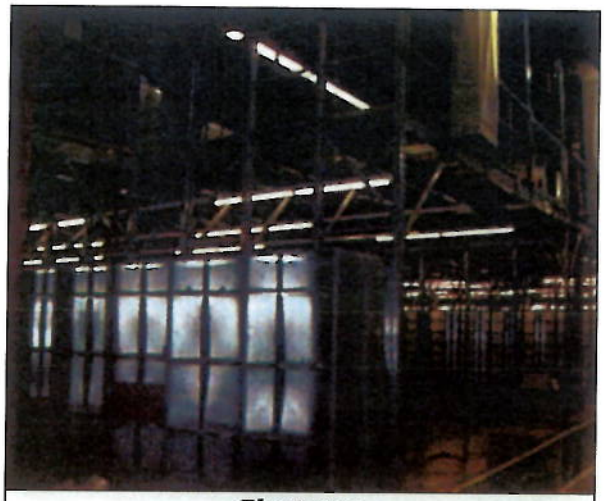
Boardroom

Executive office

Plant area with storage racks

Interior truck – level docks

715 Milner Avenue

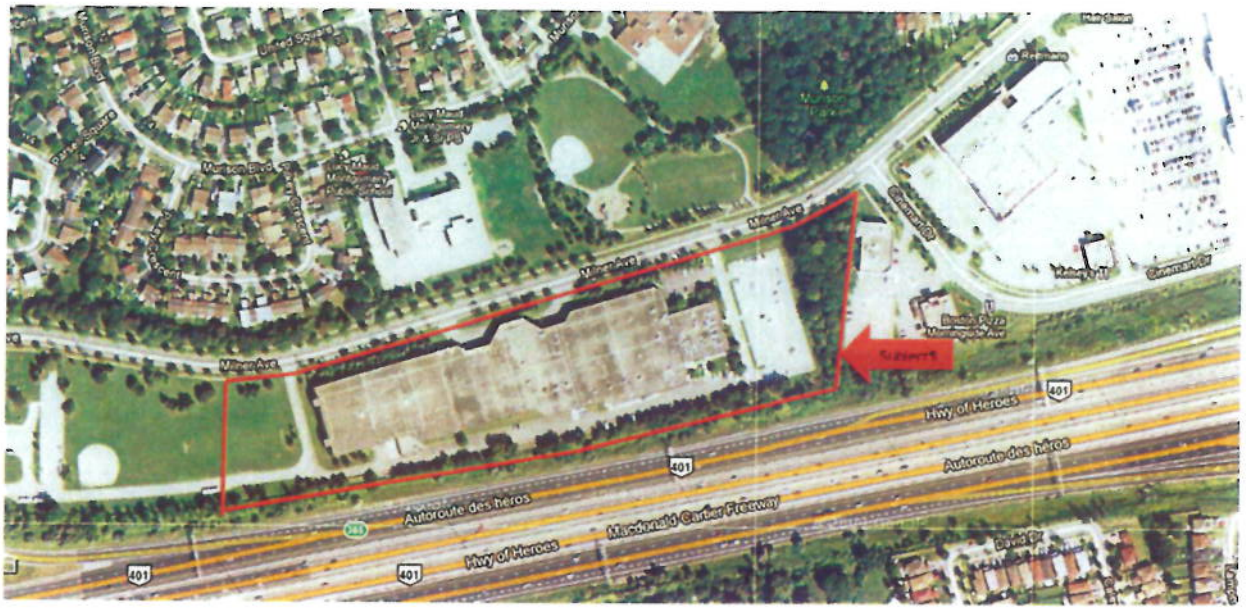


Plant area

Plant area with 40 foot height

Mezzanine storage area

715 Milner Avenue



SUMMARY OF SALIENT FACTS AND CONCLUSIONS

PROPERTY ADDRESS	• 715 Milner Avenue, Toronto, Ontario.
PROPERTY TYPE	• An industrial building containing a total of 279,703 square feet of which approx 65,160 square feet are office space
REGISTERED OWNER	• 2244446 Ontario Inc.
PROPERTY RIGHTS APPRAISED	• Fee Simple Interest.
LEGAL DESCRIPTION	• Part of Blocks C and D, Plan 66M-1705 (Part 2 on Survey 66R-24746) and Part of Block 1, Plan 66M-1700 (Parts 1&2 on 66R-14146)
SITE AREA	• 13.65 acres according to GeoWarehouse and Land Registry
SITE DIMENSIONS/SHAPE	• Narrow, irregular strip of land, with a maximum width of ±425 feet. Frontage of approximately 1,687 feet to the south side of Milner Avenue, and approximately 1,608 feet to the north side of Highway 401.
BUILDING DATA	
715 Milner Avenue	• Warehouse of 214,543 square feet with integral two-storey office building of 65,160 square feet.
AGE	• Constructed in 1978 with an addition in 1981.
RENTABLE AREA	• 279,703 square feet.
HEIGHT	• 23 and 40 feet clear height in industrial portions of 715 Milner Avenue.
ASSESSMENT	• $14,214,444.
REALTY TAXES (2011)	• $481,320
ZONING	• M-8-913-1002-1054-1420 Industrial.
HIGHEST AND BEST USE	• As Improved.
DATE OF INSPECTION	• December 6, 2011
EFFECTIVE DATE OF APPRAISAL	• December 6, 2011
MARKET VALUE ESTIMATE	• **$14,800,000**

STRENGTHS AND WEAKNESSES

LOCATION

STRENGTHS

- The Subject has exposure to Highway 401 which offers significant advertising potential.
- Good access to arterial routes and highway system.
- TTC public transportation at the doorstep.

WEAKNESSES

- The Subject is located in a light industrial neighbourhood toward the east end of Scarborough. It competes with other suburban industrial/commercial nodes, but suffers from the higher realty tax rates of Toronto.

PHYSICAL ATTRIBUTES

STRENGTHS

- 715 Milner Avenue is an office/warehouse complex of 279,703 square feet that utilizes the maximum width of the site.
- Building is well-maintained and fully air-conditioned.
- Excellent warehouse clear ceiling heights (23-40 ft.).

WEAKNESSES

- 715 Milner Avenue comprises a relatively long warehouse building with shipping and receiving doors close to the centre on its north side. There are no other shipping/receiving doors. This arrangement is less than ideal.
- Approximately 25% of 715 Milner Avenue is office space. This high office component might limit the market of potential purchasers seeking warehouse space.

RENTAL MARKET

STRENGTHS

- Industrial availability rates are generally stable throughout the GTA.
- Avg. industrial rents in Scarborough have increased slightly from Q3 2010 to Q3 2011.

WEAKNESSES

- East Scarborough tends to be a weak rental market for large industrial users.
- Scarborough has the third lowest avg. industrial rent in the GTA.

INCOME CHARACTERISTICS

STRENGTHS

- The Subject is assumed to be offered for sale with vacant possession. As such it would appeal to potential owner occupiers.

WEAKNESSES

- The Subject is not easily subdivided to allow multiple tenancies. As such the Subject is unlikely to appeal to investors unless leased to a creditworthy tenant.

INVESTMENT

STRENGTHS

- Industrial capitalization rates have trended downward over the past decade given intense competition by investors to place capital.
- Warehouse/distribution facilities will be the most sought after industrial product moving forward.
- Scarcity of serviced land has caused land prices to increase significantly over the past 3-5 years.
- Compression of capitalization rates appears to be on-going.

WEAKNESSES

- The Subject is assumed to be offered for sale with vacant possession. The highest values for investment properties tend to be achieved when the buildings are fully leased for more than 5 years to creditworthy tenant(s).

BASIS OF THE APPRAISAL

SUBJECT OF THE APPRAISAL

The subject of this appraisal is 715 Milner Avenue, Toronto, Ontario, an industrial/office building with plentiful surface parking.

PURPOSE AND USE OF THE APPRAISAL

The purpose of this appraisal is to estimate the market value of the fee simple interest in the Subject. The effective date of this appraisal is December 6, 2011 (the date of our inspection). The report has been prepared for Toronto Hydro for purchase consideration, and may not be used for any other purpose.

PROPERTY RIGHTS APPRAISED

The property rights being appraised are those of the "fee simple" interest. A "fee simple" interest is defined as "absolute ownership unencumbered by any other interest or estate, subject only to the limitations imposed by governmental powers". Any mortgage or other encumbrances, unless stated otherwise, have been disregarded and the property has been appraised as though free and clear.

EXTRAORDINARY ASSUMPTIONS

We did not obtain an opinion on the state of title or any encumbrances, and are not qualified in these legal matters. We have not read all the documents registered against the title.

This report is also subject to the Assumptions and Limiting Conditions contained at the end of this report.

DEFINITION OF MARKET VALUE

"Market Value" is defined[2] as the most probable price which a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently and knowledgeably, and assuming that the price is not affected by undue stimulus. Implicit in this definition is the consummation of a sale as of a specified date and the passing of the title from seller to buyer under conditions whereby:

- buyer and seller are typically motivated;
- both parties are well informed or well advised, and acting in what they consider their best interests;
- a reasonable time is allowed for exposure in the open market;
- payment is made in terms of cash in Canadian Dollars or in terms of financial arrangements comparable thereto; and
- the price represents the normal consideration for the property sold unaffected by special or creative financing or sales or concessions granted by anyone associated with the sale.

EXPOSURE TIME

Exposure time is the estimated length of time the property interest being appraised would have been offered in the market prior to the hypothetical sale at the estimated market value on the effective date of the appraisal. Reasonable exposure encompasses not only adequate, sufficient and reasonable "time" but also adequate, sufficient and reasonable effort.

In addition to price, exposure time is also a function of the use and type of real estate. The Subject currently consists of an industrial/office building, located in a transitional area in the eastern portion of the City of Toronto, (formerly the City of Scarborough), easily accessible by major roadways. Based on consideration of the forgoing, analyses of industrial sales data, and discussions with brokers and investors of industrial real estate, it is our opinion a reasonable exposure time for the Subject is four to eight months.

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[2] Source: Canadian Uniform Standards of Professional Appraisal Practice, January 2008 - Practice Notes.

SALES HISTORY

Most of the Subject site was purchased April 7, 1978 by Canadian Honda Motor Limited (which subsequently changed its name, to Honda Canada Inc. in 2001). The building was constructed the same year, with an addition to the industrial section made in 1981.

A single-storey office building, not part of this appraisal, was constructed at 709 Milner Avenue in 2000/2001 which was subsequently sold by Honda in June 2010 to Pingreo 2000 Real Estate Holding LLC.

Honda purchased a small triangular-shaped parcel of land, adjacent to the east of the main site, on October 5, 1984. This land is considered conservation land and remains undeveloped to date.

Records indicate the Subject had been owned by Honda since acquisition in 1978 and 1984 until sold on November 30, 2010 to the present owner, 2244446 Ontario Inc., for $8,000,000 cash. In a discussion with the listing agent at Colliers International, the property had been listed since prior to the recession at an asking price of $16,325,000 (2009). In 2010, with no responsive phone calls for 6-7 months, Honda and 2244447 Ontario negotiated the sale which closed on November 30, 2010.

SCOPE OF THE APPRAISAL

The preparation of this appraisal encompassed the necessary research and analysis to prepare a report in accordance with the Canadian Uniform Standards of Professional Appraisal Practice. In regard to the Subject, this involved the following:

- Inspection of the Subject and surrounding area on December 6, 2011, which is also the effective date of this report, and the date photographs included in this report were taken.
- Review and analysis of data pertaining to the Subject. This includes a survey, Geowarehouse report, and property tax bills etc.
- Acquisition of additional information and data through interviews/discussions with municipal officials and real estate brokers familiar with the Subject area.

- Analysis of land use controls pertaining to the Subject.
- An in-depth discussion and statement of Highest and Best Use.
- A discussion of the appraisal methodologies and procedures employed in arriving at indications of value.
- The leasing activities researched include rental rates recently achieved, as well as current asking rates, as applied to industrial buildings in the Subject's general market area.
- Search for, and analyses of, sales and listings of "index" or "comparable" properties that might reasonably be used to indicate a value for the Subject.
- Compilation and analysis of the data and reconciliation thereof into estimates of market value as at the effective date of the appraisal.
- The Cost Approach was not utilized due to the difficulties in estimating replacement costs new and accrued depreciation from all causes for a property such as the Subject. Furthermore, the Cost Approach is not currently a method on which market participants rely to make purchase/sale decisions.

LOCATION ANALYSIS

THE CITY OF TORONTO - ECONOMIC AND DEMOGRAPHIC PROFILE

On January 1, 1998, the "New" City of Toronto was created from the amalgamation of the original Metropolitan Toronto Communities of Toronto, Etobicoke, North York, York, and Scarborough (Cities) and the Borough of East York.

According to Statistics Canada's forecast, Toronto's population is expected to reach 2.6 million by 2011, a jump of nearly 5 percent from 2006. However, the growth rate for the overall GTA is nearly double that of the City of Toronto at a 9.2 percent change from 2006 with the overall population surging to 6.26 million residents. The visible minority population within the GTA is expected to surpasses the number of Caucasian population for the first time in 2011, with a total of between 2.6 million and 3.2 million—46.9 to 51 percent of the GTA.

Current Demographics

	Subdivision (Municipality)	Agglomeration (GTA)
Population	2,503,281 *(2006 Census)*	5,013,100 *(July 2010)*
Per Capita Income	$40,704 *(2006Census)*	
Median Earnings	$45,350 *(2006 Census)*	
Labour Force	1,487,960 (2009)	3,488,800 *(July 2010)*
Participation Rate	66.43% *(2009)*	69.5% *(July 2010)*
Unemployment Rate	9.9% *(2009)*	9.8% *(July 2010)*
Labour Force Structure	Wholesale & Retail - 17% Manufacturing - 10.1% Transportation - 8% Construction - 5% Services - 51%	

Source: Statistics Canada. Includes Census undercounts
Income Data from these censuses relate to the calendar year prior to the census year, i.e. 2005.

Toronto is Canada's corporate capital, with more nationally and internationally top-ranked companies than any other Canadian city. The TSX Group (TSX), Canada's prime securities market, is the largest in Canada and ranked in the top ten in the world.

Toronto's office market is the largest in Canada and larger than many other major American cities. In both office and industrial surveys, Toronto's costs are among the most competitive among major North American cities.

City Map

Infrastructure

Lester B. Pearson International Airport, the hub of 60 plus air carriers, is located west of the City of Toronto's west border, in the City of Mississauga. The airport is the busiest in Canada and is the 19th busiest airport in the world by international passenger traffic.

The Greater Toronto Area (GTA) is well served by transportation routes. Principal arteries, which lead to the downtown core, include the Don Valley Parkway and the Gardiner Expressway, which in turn connect with major limited access highways such as 400, 401, 404, 407, and 427, all of which serve Southern Ontario. The expansions of Highway 404 north to the Town of Georgina and of Highway 407 east to the Municipality of Clarington are currently underway.

The Toronto Transit Commission (TTC) operates a network of subway routes (four), streetcar lines (11) and over 170 bus routes. Some bus routes operate into neighbouring GTA communities such as Brampton, Mississauga, Vaughan and Markham. The TTC currently has approximately 1.5 million daily riders. The subway, along with the excellent integrating bus service, facilitates easy access to all areas of the City of Toronto.

The Bloor Street subway extends west from Kennedy Road in the former City of Scarborough, through the City of Toronto along Danforth Avenue and Bloor Streets, to Kipling Avenue in the former City of Etobicoke. The Yonge-University-Spadina subway line is a U-shaped line, running from the Downsview Station in the northwest through Union Station in the south to Finch Station in the northwest, which acts as the main north/south public transportation route in the City. The Sheppard Avenue line connects to the Yonge-University-Spadina subway line at the Finch Station and extends to Don Mills Station in North York. The Scarborough Rapid Transit line runs from the Kennedy Station to the McCowan Station in northeastern Scarborough. The Bloor Street subway connects with the Yonge-University-Spadina subway line at three separate stations.

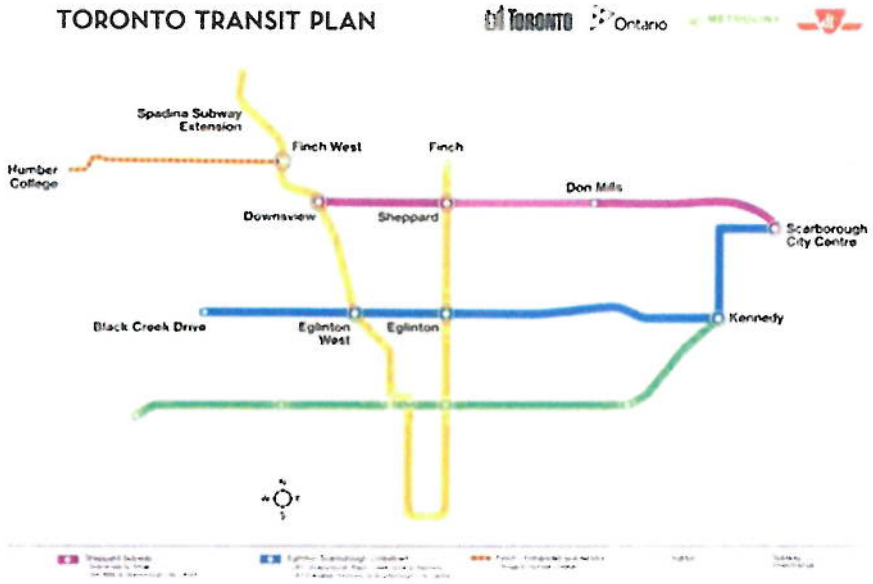
The TTC is scheduled to take delivery of 420 new subway cars, which will make 70 new trains, over a period of three years. These new trains will run on the Yonge-University line and service had started on several of these new trains at the time of writing. The subway, along with the excellent integrating bus service, facilitates easy access to all areas of the City of Toronto.

On March 31, 2011, Metrolinx, together with the Province of Ontario, announced that it has reached a transit deal with the City of Toronto. Under the new plan, Toronto will extend the Sheppard Subway to Downsview station in the west and Scarborough City Centre in the east, incorporating the extensions into the current TTC subway system. Metrolinx will build and own a new 25.2 km rapid transit line along Eglinton Avenue from Jane Street/Black Creek, east to Kennedy Station and on to Scarborough Centre. The Eglinton-Scarborough Crosstown Light Rail Transit (LRT) line will be largely underground along Eglinton Avenue and will run on the existing Scarborough RT right-of-way to Scarborough Centre.

Toronto will also introduce an enhanced bus service between the new Finch West subway station and Humber College. The new transit plan reaffirms the Province's commitment to fund $8.4 billion towards these transit projects.

The region is also well served by seven commuter rail lines operated by Metrolinx as GO Transit. Each line terminates at Downtown Toronto's Union Station. Go Transit also operates an extensive number of bus routes in the GTA.

Updated Toronto Transit Plan



New Developments

The revitalization of the City's waterfront is on-going with the 3.75 acre Sherbourne Common Park currently under construction. Sugar Beach, named after the adjacent Redpath Sugar Refinery, opened to the public in July of 2010. The recently opened Corus Building is a four hundred and fifty thousand square foot office and broadcast complex located at the foot of Jarvis Street.

Waterfront Toronto, in conjunction with the City of Toronto and Toronto and Region Conservation, is currently in the process of revitalizing the City's central waterfront area including rerouting the Don River, building flood protection and ultimately building new communities.

The West Don Lands is slated to be Toronto's first 21st century community by transforming the Toronto waterfront into a series of sustainable, mixed-use urban communities/precincts, the West Don Lands will serve to integrate parks, institutions, and open space, expanding the City's capacity for urban living, recreation, and employment. The overall plan includes 12,500 new residential units, 500,000 square feet of retail space and 130 Acres of parks/public spaces.

Over the next several years, Regent Park, Canada's largest and oldest publicly funded community will be going through a remarkable transition that seeks to integrate social housing with market-priced housing and retail.

Within the past year, three office towers designed for the 21st century were completed in the Toronto Market; the RBC Centre at 155 Wellington Street, the Telus Tower at 18 York Street and the Bay Adelaide Centre at 333 Bay Street. Each of the buildings was designed to achieve LEED gold status, awarded to recognize cutting-edge buildings with reduced environmental impacts energy savings, and design, construction and operational efficiencies. Each building features Enwave's Deep Lake Water Cooling system, a sustainable method of cooling buildings and reducing hydro consumption, among other environmentally friendly and cost saving features.

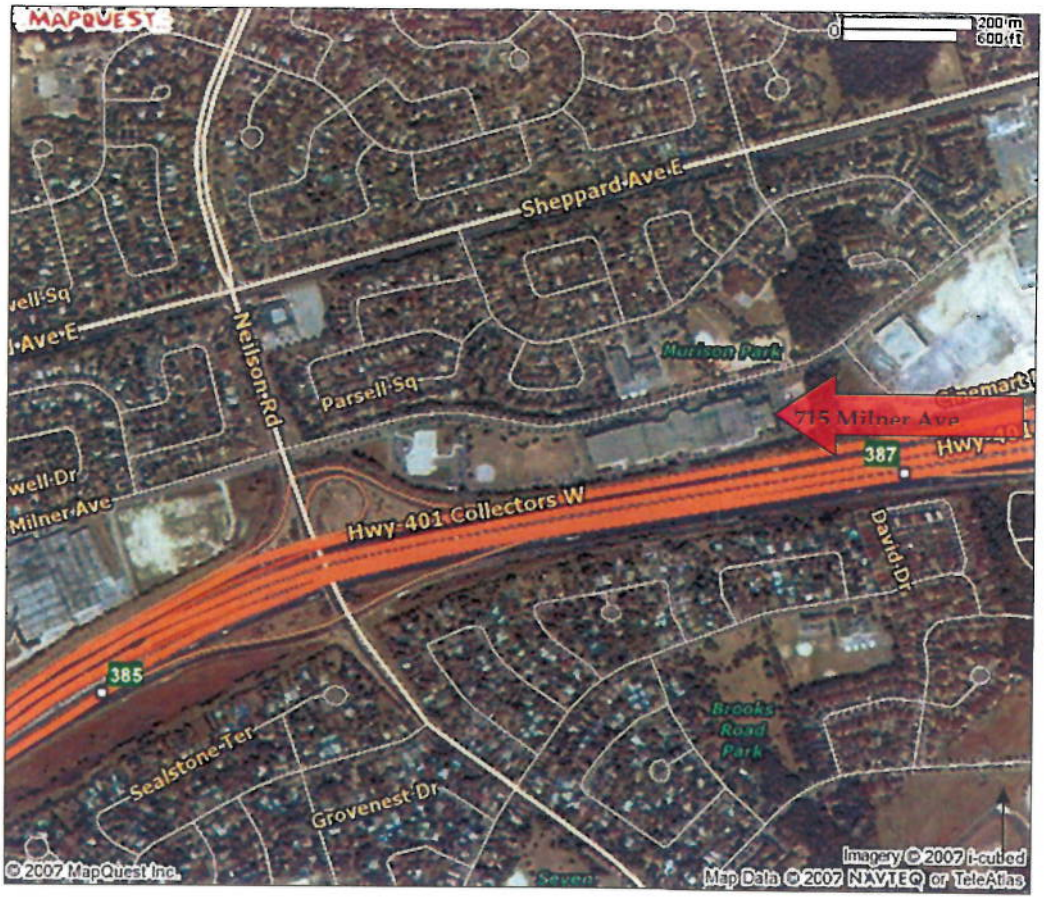
The City of Toronto and the surrounding GTA is Ontario's major financial and manufacturing engine. It has the mass and infrastructure to support a large, broad base of real estate development. Infrastructure plans are in place to accommodate the expected growth in the City of Toronto and the GTA.

The Bloor Street subway extends west from Kennedy Road in the former City of Scarborough, through the City of Toronto along Danforth Avenue and Bloor Streets, to Kipling Avenue in the former City of Etobicoke. The Bloor Street subway also connects with the Yonge Street subway and the University-Spadina subway lines at three separate stations. The subway, along with the excellent integrating bus service, facilitates easy access to all areas of the City of Toronto. The Yonge Street subway line is the main public transportation in the City providing north-south subway access from Union Station in the south, to the Finch GO Station in the north. East-west intersecting subway lines are located at Bloor Street and a new service has recently opened along Sheppard Avenue.

CONCLUSION

The City of Toronto and the surrounding GTA is Ontario's major financial and manufacturing engine. It has the mass and infrastructure to support a large, broad base of real estate development.

NEIGHBOURHOOD



The Subject is located on the south side of Milner Avenue, also fronting along the north side of Highway 401, in the northeast section of the City of Toronto (in the former municipality of Scarborough). Access to major roads is very good from the Subject Property, with the Morningside Avenue/Highway No. 401 interchange located less than one kilometre to the southeast. Morningside Avenue is a major thoroughfare, with a traffic light at Milner Avenue. Milner Avenue is a secondary, four-lane road extending east/west between Conlins Road in the east, and McCowan Road in the west. Although Milner Avenue passes under Neilson Road a short distance west of the Subject, there is no access to Milner Avenue from Neilson Road.

Highway 401 provides direct access from other areas of Metropolitan Toronto to the west, as well as from Pickering and other areas of Durham Region to the east. The Don Valley Parkway/Highway No. 404 interchange with Highway 401 is located approximately 13 kilometres west of the Subject Property, facilitating access from downtown Toronto and areas to the north in York Region, respectively. TTC bus service runs along Milner Avenue, in front of the Subject, and connects to the Scarborough Centre GO station and Scarborough RT station, approximately 4 kilometres to the west.

Surrounding property uses in the vicinity of the Subject, are summarized below.

North: Two schools are located on the north side of Milner Avenue opposite the Subject, with residential development, (largely semi-detached and detached single family dwellings), extending both north and south of Sheppard Avenue East, throughout the area bounded by Milner Avenue on the south, Morningside Avenue on the east and Markham Road on the west. Townhouses and low-rise apartments are also found along Sheppard Avenue East, separated from the road by large green spaces.

Malvern Market Place is a 66,481 square foot retail plaza with a second level office section, situated on the northwest corner of the intersection of Milner and Morningside Avenues. This older retail property includes a Sobeys grocery store and several small local tenancies.

South: Highway 401 borders the Subject on the south, with a mix of residential development and parkland in the area just south of the highway.

East: A relatively new "big box" development adjoins the east boundary of the Subject. Developed by First Pro, the development includes a Cineplex Odeon Theatre complex, a Wal-Mart store, LCBO, Kelsey's, Boston Pizza and several other tenants (including Magic Cuts, Sleep Country, Please Mum, Uniforms, Pay Less Shoes, Penningtons and Reitmans). This development "wraps around" one office building that is situated on Milner Avenue at the southwest corner of Morningside Avenue.

Another First Pro "big box" retail concentration is on the east side of Morningside Avenue, along Milner Avenue. The quadrant bounded by Sheppard Avenue East, Conlins Road, Highway 401 and Morningside Avenue, has been developed with Home Depot and Staples Business Depot, along with the Morningside Auto Mall and smaller retailers and restaurants such as Mark's Work Wearhouse, Swiss Chalet, and Wendy's/Tim Hortons. There are also some industrial uses in this general area.

West: A church is located west of the Subject, on the west side of the Neilson Road overpass, beyond which are several multi-tenant industrial buildings (on the south side of Milner Avenue). The north side of Milner Avenue remains residential.

Apart from the major roads, much of the surrounding area has been developed as residential subdivisions over time. Although large areas of Scarborough have been designated for industrial development, there has been a relatively recent shift to more commercial and even institutional uses of former industrial lands, due to the lack of demand for industrial space. As a result of this shift, the Subject neighbourhood has become an area of mixed uses. Milner Avenue is an example of this, with commercial retail and office, institutional and industrial uses all within a small area, adjoining a residential subdivision to the north.

MUNICIPAL INFORMATION

OFFICIAL PLAN

The new Official Plan for the City of Toronto designates the Subject as being within an Employment Area. This Employment Area is situated on the south side of Milner Avenue, from Markham Road to Morningside Avenue. Employment Areas are places of business and economic activity. Uses that support this function consist of offices, manufacturing, warehousing, distribution, research & development facilities, utilities, media facilities, parks, hotels, retail outlets ancillary to the preceding uses, and restaurants and small scale stores and services that serve area businesses and workers.

"Toronto's Employment Areas are the hothouses where we grow our enterprises and jobs – they contain more than one-third of Toronto's jobs. These areas will require intensification to accommodate the anticipated job growth over the next 30 years. Businesses increasingly require flexibility in order to compete effectively in the global economy. This need for flexibility extends to a firm's lands and buildings and to what is available to support that business activity in the immediate area. A broad and inclusive approach to employment uses in Employment Areas is needed for the city's economic future. Uses that support the prime economic function of Employment Areas, such as parks, small-scale retail stores and services, workplace childcare and restaurants, must also be readily accessible within Employment Areas."

ZONING

According to the City of Toronto, the Subject is located within the area designated as the "Neilson Employment Area" under the Official Plan. The property is zoned Industrial M-8-913-1002-1054-1420. Permitted uses include industrial, day nurseries, offices (excluding medical and dental) and places of worship.

The zoning bylaw includes several restrictions according to the following section numbers:

8	-	The aggregate gross floor area of all buildings may not exceed 0.5 times the total site area.
913	-	Minimum front yard setback of 3 metres.
1002	-	Minimum rear yard setback of 7.5 metres. (With a minimum setback of 14 metres from Highway 401).
1054	-	Minimum side yard setback of 3 metres.
1420	-	Parking abutting Highway 401 frontage is permitted with a landscape buffer.

Based on our knowledge of the existing use and our interpretation of the zoning by-laws discussed above, it is our opinion that the current use conforms with the regulations in effect. The existing building occupies approximately 47% of the total site area, which is marginally less than the maximum allowable under the By-law (50%).

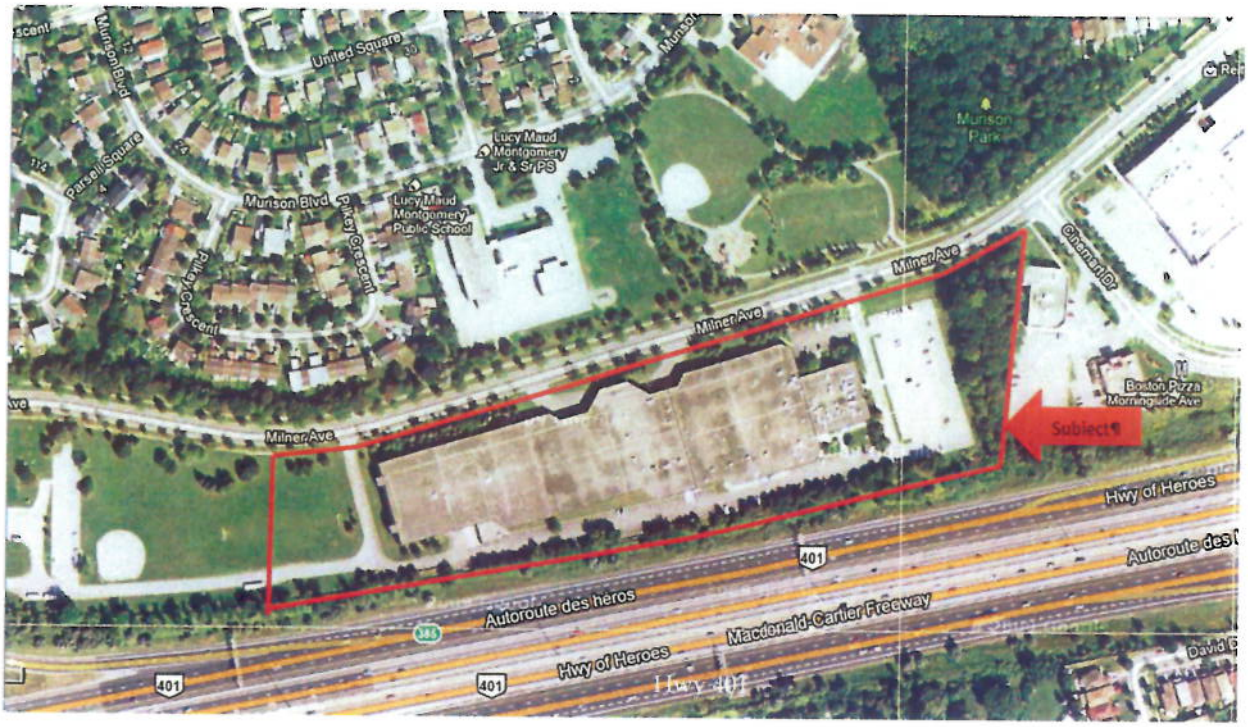
Based on the Subject's 13.65-acre site size, approximately 297,297 square feet of gross building area is allowable at a 50% coverage; representing an additional 17,594 square feet of buildable area possible on the site.

ASSESSMENT AND TAXES

According to Property Tax Bills, the Subject was assessed for the calendar year 2011 as indicated below.

Address	**715 Milner Avenue***	
Roll Number	19 01 122 153 00410 0000	
Size	13.65 acres*	
Assessment		
2008 Assessed Value	$15,684,000	
2011 Capped Value	$14,214,444	
Realty Taxes		
2011	$481,320	($1.87 psf)

DESCRIPTION OF THE SUBJECT



IDENTIFICATION

715 Milner Avenue, Toronto, Ontario

LEGAL DESCRIPTION

Part of Blocks C and D, Plan 66M1705 (Part 2 on Survey 66R-24746) and Part of Block 1, Plan 66M-1700 (Parts 1 & 2 on 66R-14146)

SITE DATA

Location	➢ South side of Milner Avenue, midway between Morningside Avenue and Neilson Road, with exposure to Highway 401. Approximately one kilometre northwest of the Morningside Avenue/Highway 401 interchange.
Street Frontage	➢ 1,687 feet frontage on the south side of Milner Avenue, with 1,608 feet of frontage along the north setback allowance of Highway 401.
Land Area	➢ 594,594 sq. ft. Source- Geowarehouse and Land Registry 13.65 acres
Floor Area Ratio[3]	➢ 47% overall.
Shape	➢ Irregular
Topography	➢ Generally at grade with Milner Avenue, with the site being somewhat elevated above Highway 401. Most of the site is fairly uniform with the elevation changing by only a few feet throughout. (Some landscaped portions are raised above the rest of the lands.) The easternmost portion of the site comprises a small ravine, which is conservation land. Beyond the ravine, the parking lot of the adjacent retail development is at a lower elevation than the Subject.
Hazardous Materials	➢ This report has been prepared on the assumption there are no hazardous materials or waste on or in the site, and that the property complies with all the requirements of the authorities having jurisdiction over environmental matters.
Soil Bearing Capacity	➢ Adequate, so far as we are aware.
Parking	➢ Adequate on-site parking.

[3] Floor Area Ratio (FAR) = The gross floor area of the building divided by total site area.

Access (Vehicular)

- Two vehicular access roads are available from Milner Avenue to the front entrance of 715 Milner Ave. with parking areas situated opposite one entrance. (Front entrances are oriented towards the west and east sides of the property, respectively.)

  An interior paved roadway extends along the southern boundary of the site, past the rear of the industrial building, with perimeter parking also available behind the industrial warehouse. Truck loading/unloading access is via a circular drive off Milner Avenue, midway along the warehouse frontage.

Parking

- There are two parking areas provided; at the easterly end of the building and along the southerly elevation. These contain approximately 300 lined parking spaces as well as areas for bicycle and motorcycle parking.

Site Improvements

- The grounds are extensively planted with grass, trees and shrubs. The front portion of the office area is landscaped and outdoor staff areas are provided.

  Concrete curbs and sidewalks extend along the front of the building, with sidewalks on both sides of Milner Avenue. Both the east and west ends of the site have asphalt paved parking areas; there is a circular paved truck access area and a paved roadway extends along the southern perimeter of the site.

Comments

- Site maintenance of the property is considered good.

BUILDING DESCRIPTION

Accommodation

- The entire property was originally occupied by Honda Canada Inc. as a warehouse/distribution facility, and head office but since the sale in Nov 2010 it has been vacant.
- **715 Milner Avenue** is an industrial warehouse of 214,543 square feet (including mezzanine), with an attached two-storey office building of 65,160 square feet.

  The original building was constructed in 1978. It comprised a two-storey office structure at the east end of a warehouse with a clear height of 26 feet. In 1981, the offices were expanded to include some of the former warehouse area—a mezzanine was added at the east end of the warehouse—and an addition (with clear height of 40 feet) was constructed at the west end of the original warehouse.

  Due to the configuration of the site, the building has a narrow rectangular design, with a single shipping/receiving area along the north side of the building, accessible directly from Milner Avenue and drive-in doors on the southerly elevation.

Structure

Footings
- Reinforced concrete.

Slabs
- Reinforced concrete.

Exterior Walls
- Pre-cast concrete panels with some metal panels on upper portions.

Framing
- Structural steel.

Windows
- The office portion has bronzed double glazed windows in metal frames, on exterior walls.

Roof
- Steel roof deck. Believed to have membrane over insulation, protected by gravel.

Warehouse Areas

Height

- Approximately 23 feet clear over the 138,000 square foot portion of the original structure. 40 feet clear over warehouse addition of 60,000 square feet at the west end of the building.

Floors

- "Super flat" concrete flooring. The newer portion of the warehouse, with the higher 40-foot clear height, has a guided system for high bay stacking.

Lighting

- Suspended fluorescent lighting, with aluminum halide lighting. The warehouse also has some natural light provided by skylights.

Washrooms

- Adequate.

Shipping Doors

- A circular drive has two large overhead exterior doors allowing trucks to circulate into a paved, enclosed loading area (and out the other side). There are nine interior dock level drive-in doors, as well as one additional access door, provided within the enclosed shipping and receiving area.

Layout

- Warehouse areas are largely open, with marked areas for interior traffic. Stacking units are arranged in corridors around the perimeter. An enclosed garbage room, with 2 drive-in doors, is located on the south side of the warehouse at the west end, and there are two mezzanine areas.

  The main mezzanine consists of 20,000 square feet (not included in the 192,462 square feet building total), accessible by metal staircase within the warehouse, and also from the second floor adjoining offices. Constructed with open metal framing, this mezzanine has plywood flooring and is used as a storage area with metal racking.

  The second mezzanine is a smaller partitioned area on the north side of the warehouse adjacent to the shipping/receiving area. The upper level is accessible by stairs leading to a large staff area, while the lower level of the enclosed area includes shipping/receiving offices, a first aid room and washrooms.

  There is also a separate hazardous material storage area with individually sprinklered rows and a separate exit.

  The warehouse is clean and appears to be in good overall condition.

Office Areas

Floor Coverings
- Carpet, vinyl, and some ceramic tile in reception areas and washrooms.

Walls
- Textured and painted drywall.

Ceilings
- Mostly suspended T-bar with acoustic tiles, with limited drywall. Lighting is largely provided by fluorescent panels in open work areas, with some recessed fluorescent lights and pot lights and wall sconces in washrooms and common areas. Two skylights provide natural light.

Washrooms
- Adequate.

Layout
- Offices are on two floors, with an open staircase in the lobby, and one elevator providing access to the second floor. Accommodation is mostly open plan with work areas separated by partial dividers. Separate rooms include a cherry wood-paneled board room; a hospitality suite with meeting room, small kitchen and 2-piece washroom; a mail room; computer room, (with a raised floor); a cafeteria with kitchen, a first aid room; and standard utility rooms.

  Two retractable fire walls can separate portions of the office area between the original office portion and the expansion portion. Three sets of staircases are provided in the two-storey office portion.

  Generally, the interior finishes had been updated. However, offices on the ground floor, adjoining the warehouse, tend to be dark. A small shop on the ground floor of the southwest corner of the office building has three drive-in overhead doors.

Equipment & Mechanical Systems

Energy System

HVAC
- All office and warehouse areas are air-conditioned.

  Almost all heating, ventilation and air conditioning is from gas fired, roof mounted units, ranging in size from 2.5 tons to 15-ton. Ceiling fans help circulate air throughout the warehouse.

Fire Protection
- Standard, with sprinklers throughout all areas.

Security
- 'Swipe' card access doors throughout for security.

Capital Expenditures
- We were not provided with a building report so cannot comment on any capital expenses required, but none appear evident.

Observed Condition
- The building appears to be in good condition.

CURRENT ECONOMIC CONDITIONS

The global economy experienced a decrease in consumer and investor confidence in the third quarter of 2011, due in large part to the increasing amount of unsettling macroeconomic data from the major economic hubs of the Eurozone and the United States. The resulting financial market volatility, uncertainty and risk aversion are likely to continue until such time that both the United States and the Eurozone demonstrate that legislation has been implemented to resolve public debt pressures.

Government debt pressure in the developed economies coupled with lower than expected household spending are predicted to curb economic growth to 2% (annualized) in the United States over the next 18-24 months. Germany will be the driving force behind economic growth in the Eurozone which is forecasted to be 1.5% in 2012. The developing economies of the world have maintained a steady pace of growth throughout the recent economic uncertainty and continue to account for increasing share of global demand for staple commodities such as oil, copper and iron ore.

Despite the recent volatility experienced in global financial markets and unsettling macroeconomic data, prospects are expected to improve for the balance of 2011 and throughout 2012 as the impacts from the earthquake in Japan; recent geopolitical events around the globe and dislocations due to natural disasters are slowly resolved. Further to that, continued business profitability coupled with increasing demand from emerging nations will keep the global economy from stalling and help it regain momentum. [4]

[4] Scotiabank Group Global Economic Forecast September 2011 (Accessed September 2011)

CANADA

In Canada, economic activity and growth were strong in the first quarter, but experienced a sharp slowdown to 1.5% (annualized) in the second quarter, which can be attributed to reduced government spending and geopolitical influences. Aggregate demand is rebalancing toward business fixed investment and net exports, and away from government and household expenditures, which has been fueling the economy in recent years.

In contrast to earlier reports, the Bank of Canada forecasts growth in household income to be slower, while net exports are expected to be further restrained by ongoing competitiveness challenges, including headwinds from the persistent strength in the Canadian dollar and increasing instability of the US economy.

The Bank projects that the economy will expand by 2.8 per cent in 2011 and 2.6 per cent in 2012, growth in 2013 is expected to equal that of potential output, at 2.1 per cent. The Bank expects that the economy will return to capacity in the middle of 2012, two quarters earlier than had been projected in January. While underlying inflation is subdued, a number of temporary factors boosted CPI inflation to around 3 per cent in the second quarter of 2011 before total CPI inflation converges to the 2 per cent target by the middle of 2012. This short-term volatility reflects the impact of recent sharp increases in energy prices, a rise in core food prices and the ongoing impact from changes in provincial indirect taxes. Over the next two years the Bank expects inflation rates to remain within the targeted 1% - 3% range, with a strong likelihood of being in the upper half of that range.[5]

The positive forecast for business fixed investment is a strong reflection of the enviable financial positions of Canadian companies, persistent low borrowing costs, high commodity prices and an increasing Canadian dollar.[6]

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[5] July 2011 Bank of Canada Monetary Policy Report (Accessed September 6, 2011)
[6] July 2011 Bank of Canada Monetary Policy Report (Accessed September 6, 2011)

Overnight Interest Rate

Since 2009, the Bank of Canada has effectively provided stimulus by cutting its overnight interest rate. Following earlier reductions, the rate was further reduced to a record low of 0.25% in April 2009 in order to achieve the Central Bank's inflation target.[7]. This rate was maintained until June 2010, at which time it increased to 0.5%, followed by increases to 0.75% effective July 20, 2010 and 1.0% effective September 8, 2010.

On September 7, 2011, the Bank announced the target for the overnight rate will be maintained at 1.0% for the foreseeable future. Mark Carney commented that GDP shrank 0.4% over the second quarter, but the recovery has likely resumed and will continue throughout the balance of 2011 and into 2012.[8] The decision by the Bank of Canada to hold the overnight lending rate at 1.0% has left considerable stimulus money on the table and is consistent with achieving the 2.0 percent inflation target in an environment of significant excess supply in Canada. The Bank judges that the risks to the inflation outlook are roughly balanced over the projection horizon.

Statistics Canada reported that the value of building permits in Canada totaled $6.6-billion in June 2011, up 2.1% from May when month over month growth was 20.9%. The increase was largely attributed to higher construction intentions for industrial and institutional assets in Ontario and multi-family dwellings in British Columbia. The value of permits in the non-residential sector was $2.8-billion up 3.0% from May when month over month growth was 51.1%, industrial and institutional assets in Ontario were the primary driving factor for this increase. The value of permits in the residential sector was $3.7-billion up 1.5% in May, when growth was 5.2%. This growth is due in large part to higher intentions of construction for multi-family dwellings in British Columbia and single family units in Ontario.[9]

In June 2011, Ontario lead all other provinces by reporting the highest value of both residential and non-residential building permits, totaling $2.3-billion, up 6.3% from May 2011. Residential permits were valued at $1.2-billion, down 4.9% from May 2011 and non-residential building permits totaled $1.07-billion, up 23.1% from May 2011. Toronto reported a total value of building permits equal to $942-million dollars, down 19% from May 2011.[10]

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[7] In total, The Bank trimmed 4.25 percentage points from the overnight rate between December 2007 and April 2009.

[8] "Mark Carney Signals Long Pause on Rate Hikes", Globe and Mail, September 7th, 2011 (Accessed September 7, 2011)

[9] Statistics Canada Building Permits June 2011 (Accessed September 6, 2011)

[10] Statistics Canada Building Permits June 2011, Value of Building Permits, by Census Metropolitan Area

ONTARIO

The Bank of Nova Scotia reports that despite several challenges facing the Ontario economy growth is expected to continue moving forward:[11]

- Over the last decade the service sector in Ontario has grown to encompass over 75% of the Province's economy, indicating how important this sector is to the overall performance of the Province. The Finance and the Retail sector have been outperforming forecasts and are among the highest sector performers in Ontario, a trend that is expected to continue moving forward.
- Ontario's evolving manufacturing sector has reaped the benefits of reformed tax methodologies, both HST (Harmonized Sales Tax) and CIT (Corporate Income Tax). It is forecast that both food processing and machinery/equipment manufacturing will continue to gain importance in the production mix, while increased investment will be important for growth and improved productivity in the manufacturing sector as a whole.
- Driving the manufacturing sector of Ontario, the Auto industry is expected to overcome the shortage of inventory caused by the earthquake in Japan and has been forecasted to fully recover and makes gains of approximately 20% in the 3rd quarter of 2011. Several automakers have come forward with a commitment to refurbish aging manufacturing facilities to allow production of new models and remain viable sources of employment for years to come, solidifying manufacturing's place within the Ontario economy for the foreseeable future. This commitment to refurbish aging plants has also enticed a number of complementary parts manufacturers to source their operations in close proximity, adding to the job creation of the manufacturing and industrial sectors.
- A number of factors have been forecasted to combine and result in a slowdown within the housing market for the balance of 2011 and much of 2012. The rising prices of houses coupled with efforts to reduce household debt have slowed demand and have negative implications on affordability.
- Moving forward, we (Bank of Nova Scotia), forecast the Ontario economy to grow at an annualized rate of 2.3% throughout the balance of 2011 and for 2012.[12]

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[11] Source: Bank of Nova Scotia Provincial Trends July 2011 (Accessed September 2011)

Outlook for Real Estate (GTA)

During the second quarter of 2011, overall consumption of office space in the GTA has marched forward at the greatest pace in seven quarters, ending the second quarter with a total vacancy rate of 8.2% across the GTA and all asset classes.

The downtown market experienced continued leasing absorption ending the second quarter of 2011 with an average vacancy rate of 5.5%. Following suit, the suburban markets have also displayed strength with a reduced vacancy rate of 10.9%, with the North Toronto market accounting for the smallest amount of vacancy at 4.9%.[13]

The high Canadian dollar and weak demand from the U.S. pose threats to the GTA's currently vulnerable Industrial market, which will likely remain a tenant's market in 2011. The weak demand for industrial space led to attractive deals in 2010 and rental rates are expected to gradually increase.

A cooling housing market and slower employment growth are starting to have an effect on the Canadian consumer. Despite the effects of Canadians' attempting to reduce their household debt, the Retail sector is expected to remain steady through the positive impact of foreign retailers.

Tight market conditions and a cooling housing market, coupled with new legislation that will allow for the largest rent increase in several years will likely push rental rates up in the Multi-Residential sector keeping this sector in high demand.

Canada's Investment market, with a reputation as one of the most reliable in the world, will remain strong as the total value of investments is expected to moderate by 5% from 2010 to approximately $5.78 billion dollars in 2011.[14]

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[12] Source: Bank of Nova Scotia Provincial Trends July 2011 (Accessed September 6, 2011)

[13] Market View, Toronto Office, Second Quarter. CB Richard Ellis, 2011 (Accessed September 6, 2011)

[14] "Toronto 2011 Market Outlook", 2011 Market Outlook Canada, CB Richard Ellis, 2011, Retrieved on 15 February 2011.

INDUSTRIAL MARKET OVERVIEW – Q3 2011

GTA SUMMARY[15],[16]

Demand for industrial space in the Greater Toronto Area (GTA) increased this quarter as approximately 2.9 million square feet of space was absorbed, marking the sixth consecutive quarter of positive absorption, according to CBRE[17]. The vacancy rate decreased to 6.5% in the second quarter compared to 7.1% in Q1 2011. The availability rate fell for the sixth consecutive quarter and now sits at 5.5%, down from 6.1% a quarter ago. The current availability rate reflects the fact that the market has absorbed most of the space that came on the market during the recession. Only 1.8 million square feet of space remain to be absorbed before all of the space that came on the market during the recession is absorbed.

Asking rents and sale prices continued to reflect two difference markets. The average asking rental rate decreased $0.10 psf to $4.59 psf in the third quarter after rising in the second quarter for the first time in three years. The leasing market remains weak and incentives are still quite generous, which implies that demand is far from what is required to incite significant rental rate growth. Asking sale prices averaged $81.47 per square foot this quarter, which is the highest price since the fourth quarter of 2008. The majority of the user demand for industrial sale product has been met and the lack of quality space available for sale may not support prices at this level much longer. According to DTZ Barnicke, the overall average asking rental rate in the GTA decreased $0.03 psf to $4.72 psf in the third quarter, a decrease of 2.7% over the past year. Average Taxes, Maintenance and Insurance (TMI) decreased by sixteen cents to $2.22 psf in the third quarter. TMI has decreased 6.7% over the past five quarters.

For the third consecutive quarter, there were no new industrial buildings completed. Two significant construction starts occurred in Mississauga this quarter that will total 796,000 square feet. Employment growth in sectors related to industrial is expected to remain modest for the remainder of the year. Transportation and warehousing employment declined in 2011, which was a driver for the industrial market.

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[15] Source: Excerpts from DTZ Barnicke Industrial Property Market – Greater Toronto Area Q3 2011.

[16] Source: Excerpts from Toronto Industrial MarketView - Greater Toronto Area Q3 2011, CB Richard Ellis, 2011.

[17] Toronto Industrial MarketView - Greater Toronto Area Q2 2011, CB Richard Ellis, 2011.

Industrial Market Summary - Greater Toronto Area - Central

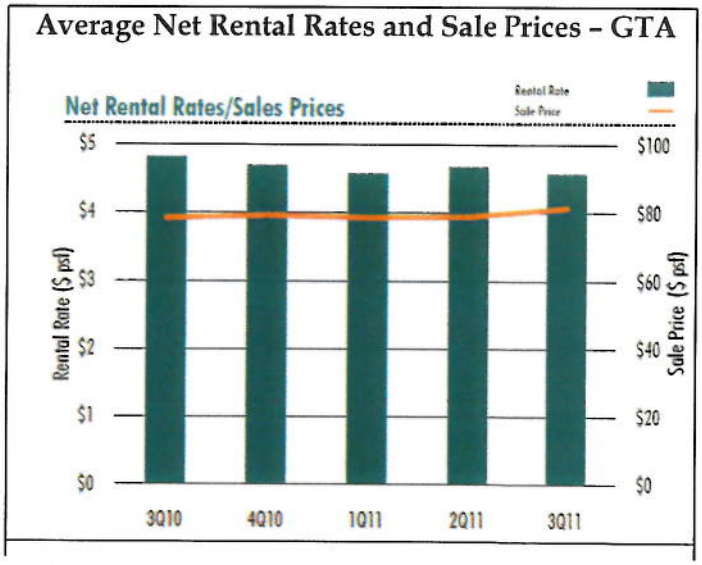
Municipality/ Market	Inventory Sq Ft	Availability Rate	Under Construction	Q3 2011 Completions	Average Net Rent ($/psf annum)	Average TMI ($/psf annum)	Average Sale Price ($/psf)
East York	9,029,002	4.33%	0	0	$5.19	$2.30	$60.85
Etobicoke	80,350,364	8.67%	0	0	$3.92	$1.91	$74.60
North York	83,951,936	3.40%	227,287	0	$4.31	$2.69	$78.39
Scarborough	63,855,370	6.23%	0	0	$4.40	$3.11	$74.86
Toronto	34,575,669	1.35%	0	0	$4.49	$2.86	$86.68
York	6,310,537	11.79%	0	0	$3.93	$2.85	$82.00
Central Total	**278,072,878**	**5.54%**	**227,287**	**0**	**$4.17**	**$2.42**	**$76.20**

Source: DTZ Barnicke Industrial Property Market - Greater Toronto Area Q3 2011.

In the overall GTA, net rent decreased by $0.03 or 0.6% from last quarter to $4.72 in Q3 2011. Taxes, Maintenance and insurance costs (TMI) were reported to be $2.22 psf in Q3-2011 on average. The average asking net rental rate in the GTA Central submarket of $4.17 per square foot in Q3 2011 was up slightly from $4.15 per square foot in Q2 2011, which was slightly below the average asking net rental rate of $4.40 per square foot for Scarborough.

The following chart outlines the relatively stable rental market over the past year within the Greater Toronto Area market.

Average Net Rental Rates and Sale Prices - GTA



Source: Toronto Industrial MarketView - CB Richard Ellis - Greater Toronto Area Q3 2011

INVESTMENT

The Altus Insite Investment Trends[18] survey confirms that the Canadian commercial property market has rebounded to a stable level despite recent global economic turmoil. However, the Survey warns that there is a lack of availability and deep pools of equity looking for a home, and active bidding for top assets. Both single and multi-tenant industrial properties remain highly ranked asset choices, particularly single-tenant as all markets exhibited either a compression or stability in rates.

CBRE's Canadian Cap Rate Survey for Q3 2011 indicates a cap rate range of 6.25% to 6.75% for Class "A" Industrial Property, down 50 basis points from a year ago when the range was 6.75% to 7.25% (Q3 2010). For Class "B" Industrial Property, a range of 7.25% to 7.75% was indicated for Q3 2011, down 25 to 50 basis points from a year ago when the range was 7.75% to 8.00% (Q3 2010).

[18] Altus InSite Investment Trends Survey, Q3 2011. Altus Group. Retrieved Nov. 10, 2011.

HIGHEST AND BEST USE

Real estate is valued in terms of its Highest and Best Use. Highest and Best Use is defined as:

> *"That reasonably probable and legal use of vacant land or an improved property which is physically possible, appropriately supported, financially feasible, and that results in the highest value."*
>
> *Source:* Canadian Uniform Standards of Professional Appraisal Practice 2008

To properly analyze the Highest and Best Use, two determinations must be made. First, the highest and best development of the site as though vacant and available for use, is made. Second, the Highest and Best Use of the property as improved is analyzed and estimated. The Highest and Best Use of both the land as though vacant and the property as improved must meet four criteria: physically possible, legally permissible, financially feasible, and maximally productive. Of the uses that satisfy the first three tests, the use that produces the highest price or value consistent with the rate of return warranted by the market is the maximally productive use.

Subject

As Though Vacant

Physically Possible ▸ The Subject site is large enough to allow for any class of development: - industrial; office; retail; residential; or mixed use. While we have not reviewed any engineering tests, our analysis of the site characteristics and nearby improvements in the area, indicate that the Subject site could adequately support physical development.

With regard to an industrial use, it could support a marginally higher density physical development than presently exists on the site.

Legally Permissible ▸ The Subject site is located within an area designated for industrial development, and zoned accordingly. The Subject M-8-913-1002-1054-1420 Industrial Zoning permits a variety of manufacturing and warehousing uses, as well as several, non-industrial and accessory uses (i.e. associated office functions).

Financially Feasible ▸ Industrial uses can be found to the west along Milner Avenue. If the site were vacant an industrial use on the Subject site is considered to be financially feasible.

Maximally Productive ▸ Of the various alternatives, the Subject's location makes it well suited for industrial development.

Commentary

As Though Vacant

If the site upon which the Subject building is located was vacant as of the effective date of this appraisal, the Highest and Best Use is estimated to be for industrial development in accordance with the land use controls and as market conditions permit. However, an increase in value might be realized if the official plan/zoning designations were amended to allow retail uses, similar to lands to the east of the Subject.

As Improved

The present use of the existing structure appears to conform to the current regulations, and therefore satisfies the "legally permissible" requirement of the Highest and Best Use analysis. The building contributes materially to the value of the site as though vacant and therefore, the use is financially feasible.

It is our opinion therefore that the Highest and Best Use of the Subject, as at the effective date of the appraisal, is for the continuation of its present use.

METHODS OF VALUATION

The appraisal process consists of the application of one or more of the three approaches to value. These three approaches to value are as follows:

Income Approach - involves converting the projected current net operating income into an estimate of current value through the use of an overall capitalization rate (Direct Capitalization) and/or through an analysis of anticipated growth in earnings during the length of the prescribed investment horizon (Discounted Cash Flow). If an income property is vacant, (as the Subject is assumed to be) a rental rate is imputed.

Direct Comparison Approach - is based on the direct comparison of recent arm's length transactions of similar properties in the open market.

Cost Approach - involves determining the current cost of reproducing an improvement less accrued depreciation from all causes plus the current market value of the land.

All three approaches rely on relevant market data and as such, all three are market data approaches. However, each approach nonetheless could possibly lead to a different estimate of value for the same property. Each value estimate is reviewed with regard to purpose of the appraisal, type of property and the degree of reliability of the data used. The final estimate of value is usually the product of the most applicable approach to the given appraisal problem.

Conclusion

The Subject Property is a single-occupant industrial building. As such, Direct Capitalization is considered the most appropriate Income Approach method and has been utilized as a valid approach in this analysis.

The Direct Comparison Approach has also been included as a viable method to estimate the current market value of the Subject. There have been several recent sales of similar industrial buildings throughout the Greater Toronto Area.

The Cost Approach requires an estimation of reproduction costs and any accrued depreciation. As is often the case with aging buildings, depreciation, (both economic and physical), is often difficult to measure. Furthermore, the Cost Approach is not currently a method on which market participants rely to make purchase/sale decisions. Due to these factors, the Cost Approach is not considered a reliable method for this type of valuation and has not been utilized in this instance.

DIRECT COMPARISON APPROACH

The Direct Comparison Approach is most applicable in an active market where many transactions occur. Unlike the more homogeneous residential market, commercial properties have many more variables that have a strong correlation to value. The Direct Comparison Approach is therefore most applicable when the appraiser can select from a number of transactions of properties that are most comparable.

We have searched for recent sales of industrial buildings and have compiled a list of the most relevant recent transactions, which are listed on the chart below headed "Industrial Sales." Following this cart are data sheets describing the comparables in greater detail and a commentary on any appropriate adjustments to provide comparability to the Subject property.

Industrial Sales

Index	Address	Sale Date	Rentable Area (SF)	Site Area (ac)	Lot coverage	Clear Height (ft)	Age	Office %	Consideration	Sale Price PSF	Indicated OCR*
1	1 Spar Drive, Brampton	Sep-11	250,485	28.96	20%	24'	1998	8%	$18,000,000	$72	
2	50 Kenview Boulevard, Brampton	Aug-11	254,500	11.43	51%	28'	2000	13%	$20,105,000	$79	6.2%
3	500 Edward Avenue, Richmond Hill	Jun-11	262,586	13.87	43%	20' to 24'	1970	6%	$9,190,545	$35	
4	2600 North Park Drive, Brampton	May-11	324,350	30.05	25%	27'	1998	1%	$29,200,000	$90	6.7%
5	120 Tiffield Road, Scarborough	May-11	174,757	7.07	57%	24'	2001	7%	$9,000,000	$52	
6	8500 Keele Street, Vaughan	Mar-11	205,567	8.98	53%	18' to 22'	1987	13%	$10,500,000	$51	
	Subject - 715 Milner Avenue, Toronto		**257,622**	**13.65**	43%	**23'**	**1978**	**25%**			

INDEX NUMBER ONE

1 SPAR DRIVE, BRAMPTON, ONTARIO

Location	:	Corner lot at Williams Parkway East and Spar Drive
Vendor	:	Rudy Properties ULC
Purchaser	:	Spar Drive Nominec Inc.
Consideration	:	$18,000,000 (cash)
Registration Date	:	Sept 1, 2011
Zoning	:	M-3 & M-4 Industrial
Land Area	:	28.96 acres
Total Building Area	:	250,485 SF (office – 15,000 SF (8%))
Clear Height	:	24 feet
Plant Doors	:	2 truck level 5 drive-in
Age	:	1998
Coverage	:	20%
Sale Price PSF	:	$72

Comments:

This property occupied a lot at the corner of Spar Drive and Williams Parkway in the municipality of Brampton. It was in a northeast part of Brampton near Airport Road which has an interchange at Hwy 407.

We understand the vendor entered into a short term leaseback with the purchaser, but intended to provide vacant occupancy.

This large property, with extensive land area would provide ample room for expansion.

INDEX NUMBER TWO

50 KENVIEW BOULEVARD, BRAMPTON, ONTARIO

Location	:	South of Steeles Ave & west of Finch Avenue
Vendor	:	Metropolitan Equities Limited
Purchaser	:	Standard Life Assurance Company
Consideration	:	$20,150,000 (cash)
Registration Date	:	Aug 30, 2011
Zoning	:	M-1 Section 615 - Industrial
Land Area	:	11.43 acres
Total Building Area	:	254,500 SF (office - 33,000 SF (13%))
Clear Height	:	28 feet
Plant Doors	:	38 truck level 4 drive-in
Age	:	2000
Coverage	:	51%
Sale Price PSF	:	$79

Comments:

This property was located at the corner of Kenview Drive and Finch Avenue in the easterly extremity of Brampton. It was a first class building designed for single occupancy in a well-accepted industrial neighbourhood.

This was a sale of an investment property to an insurance company. The occupant G.E. Schnier Company, had occupied the building since it was constructed in 2000.

This attractive building had numerous truck-level doors and a typical office ratio.

INDEX NUMBER THREE

500 EDWARD AVENUE, RICHMOND HILL, ONTARIO

Location	:	West side of Edward Ave., just north of Elgin Mills
Vendor	:	Signature Aluminum Canada Inc.
Purchaser	:	2222985 Ontario Inc.
Consideration	:	$9,190,545 ($1,400,000 cash)
Registration Date	:	June 9, 2011
Zoning	:	M-1 Industrial
Land Area	:	13.90 acres
Total Building Area	:	262,586 SF (office – 15,000 SF (6 %))
Clear Height	:	20 feet & 24 feet
Plant Doors	:	16 truck level 1 drive-in
Age	:	1950 & 1970
Coverage	:	43%
Sale Price PSF	:	$35

Comments:

This single-user building was by far the largest structure on Edward Avenue, just west of Bayview Avenue in the Elgin Mills Business Park in Richmond Hill.

The building had a large glassy office front, but the plant which had been constructed in two phases had metal siding and a rather plain, dated, image. While it had adequate shipping facilities, its clear height was modest at 20′ and 24′.

INDEX NUMBER FOUR

2600 NORTH PARK DRIVE, BRAMPTON, ONTARIO

Location	:	North side of North Park, just west of Airport Rd.
Vendor	:	2600 North Park Drive Inc. (Menkes)
Purchaser	:	Oxford Properties Industrial GP Inc.
Consideration	:	$29,200,000 (cash)
Registration Date	:	May 12, 2011
Zoning	:	M-2 Industrial
Land Area	:	30.05 acres
Total Building Area	:	324,350 SF (office - 3,750 SF SF (1 %))
Clear Height	:	27 feet
Plant Doors	:	115 truck level 0 drive-in
Age	:	1998
Coverage	:	25%
Sale Price PSF	:	$90

Comments:

This large modern single-tenant building was located on Northpark Drive, two properties west of Airport Rd. in the Woodhill Industrial Park.

North Park Drive is a wide five-lane roadway designed for large trucks with access to Airport Rd. and various 400 series highways.

The buildings elongated rear had 115 truck-level doors for shipping and the large site and low building coverage provided room for expansion.

The tenant, Ceva Logistics, occupied the building after it was sold by a division of Menkes Development to Oxford Properties.

INDEX NUMBER FIVE

120 TIFFIELD ROAD, SCARBOROUGH, ONTARIO

Location	:	West side of Tiffield Road, near Nashdene Rd.
Vendor	:	SREIT (Avista No. 7) Ltd.
Purchaser	:	Atlantic Packaging Products Ltd.
Consideration	:	$9,000,000 (cash)
Registration Date	:	May 5, 2011
Zoning	:	MG – General Industrial
Land Area	:	7.07 acres
Total Building Area	:	174,757 SF (office – 12,200 SF (7 %))
Clear Height	:	24 feet
Plant Doors	:	11 truck level 2 drive-in
Age	:	2001
Coverage	:	57%
Sale Price PSF	:	$51

Comments:

This was a modern first-class industrial building in almost new condition. It was located in a modern industrial park, just north of the CP Marshalling Yards in the Malvern area of Scarborough.

It was sold by a REIT to a large Scarborough packaging company, Atlantic Packaging Products. Despite its smaller size, its office area was modest.

INDEX NUMBER SIX

8500 KEELE STREET, VAUGHAN, ONTARIO

Location	:	West side of Keele St., opposite Langstaff Rd.
Vendor	:	Zafir Holdings Inc.
Purchaser	:	Keelestaff Holdings Inc.
Consideration	:	$10,500,000 ($2,625,000 cash)
Registration Date	:	Mar 24, 2011
Zoning	:	EM1/EM2 Industrial
Land Area	:	8.98 acres
Total Building Area	:	205,567 SF (office – 26,000 SF (13 %))
Clear Height	:	18 feet & 22 feet in two buildings
Plant Doors	:	4 truck level 3 drive-in
Age	:	1980's
Coverage	:	53%
Sale Price PSF	:	$51

Comments:

This sale was located on the busy four-laned arterial roadway of Keele Street. It was located opposite the signalized intersection of Langstaff Road, near the Canadian National Freight Yard.

This comparable was comprised of two single-tenant buildings, a well-designed building of 121,387 SF with pre-cast walls and an 84,180 SF metal building which lacked either a front door or any obvious frontage onto Keele St. These buildings were vacant, having been vacated by Coldmatic Refrigeration. Exterior maintenance had been neglected due to vacancy and the parking lot and driveways were in rough shape.

The plant had a modest 22 foot height and the buildings had a high building coverage which would limit expansion.

Adjustments

1. Spar Drive, Brampton, 250,485 SF @ $72 PSF:

Downward adjustments were warranted due to this being a newer, modern building and this property's low lot coverage which indicates surplus land which could be used for expansion.

Upward adjustments were appropriate to reflect the lesser office ratio and a somewhat lower clear height.

Overall we would consider a net downward adjustment into the mid $60's per square foot.

2. 50 Kenview Boulevard, Brampton, 254,500 SF @ $79 PSF:

Downward adjustments were warranted due to this being a newer, modern building with superior shipping facilities from 38 truck-level doors.

An upward adjustment is appropriate to reflect a lesser office ratio.

Overall we would consider a significant downward adjustment to the mid $60's per square foot.

3. 500 Edward Avenue, Richmond Hill, 270,000 SF @ $35 PSF:

Upward adjustments are required to reflect this older, rather plain building constructed with metal panels, a low clear height and a modest office ratio.

These adjustments would indicate a value range in the high $40's per square foot.

4. 2600 North Park Drive, Brampton, 324,350 SF @ $90 PSF:

Downward adjustments were warranted for a newer building, superior shipping facilities from 115 truck level doors, modest coverage which could permit expansion and a superior Airport Road location.

Downward adjustments were appropriate for a lower office ratio and larger size.

Overall, we would consider a significant downward adjustment to the upper $60's PSF or lower $70's PSF.

5. 120 Tiffield Road, Scarborough, 174,757 SF @ $51 PSF:

Downward adjustments were warranted for a newer, modern building in a superior industrial location, superior trucking facilities and a smaller size.

Upward adjustments were appropriate to reflect this comparable's modest office ratio and a high coverage ratio which would permit little room for expansion.

Overall, we would consider an upward adjustment to the high $50's PSF.

6. 8500 Keele Street, Vaughan, 205,567 SF @ $51 PSF:

Downward adjustments were warranted to reflect the smaller size of this property.

Upward adjustments were appropriate to reflect the inferior qualities of the second building, its high coverage ratio, inferior height and modest office ratio.

Overall we would consider an upward adjustment to the mid $60's PSF.

CONCLUSION

The adjusted sale prices range from the high $40's PSF to the upper $60's PSF with a predominance in the high $50's PSF and mid $60's PSF.

A review of this evidence would, in our opinion, indicate that a range of $55 PSF to $60 PSF would best indicate a unit price range at which the Subject property would trade. This results in the following value range for the Direct Comparison Approach

257,612 SF @ $55 PSF =	$14,168,660
257,612 SF @ $60 PSF =	$15,456,720
Conclusion	**$14,800,000**

INCOME APPROACH (DIRECT CAPITALIZATION)

Preamble

The Subject is comprised of a vacant 279,703 SF vacant industrial building suitable for occupancy by one tenant or an owner. Prior to a purchase in Nov 2010 it had been fully occupied by Honda Canada as a head office and distribution warehouse.

Presently it provides a useful area of 257,622 SF, excluding the mezzanine space. It is standard practice to exclude mezzanine space when making comparisons with other buildings.

The warehouse has 138,000 SF of warehouse space with a 23 foot clear height and 60,000 square feet with a 40 foot clear height and the office contains approximately 65,160 SF on two levels.

Market Rental Survey

In order to estimate a market value utilizing the Income Approach, it is necessary to estimate a market rent for the Subject Property, based upon rents obtained for similar facilities.

Industrial properties, such as the Subject, are usually leased on a net absolute basis, whereby the tenant is responsible for paying all operating costs and property taxes. We have undertaken an analysis of market rents to determine the most appropriate rental rates applicable to the Subject, distinguishing between the two different heights of industrial warehouse space, as well as the office ratio. We have assumed that leasing will be on a net absolute basis and that leasing commissions, and tenant inducements associated with the lease-up of the building, as well as any rental abatements, have been paid prior to the effective date of this Report.

Our research revealed few large industrial buildings (i.e. buildings with more than 50,000 rentable square feet), which had recently been leased in the vicinity of the Subject. Our search therefore included areas of the Greater Toronto Area beyond Scarborough, with particular attention to similar quality warehouse space with high ceiling heights. We also searched for details of recent listings of similar industrial buildings. Details of pertinent leases and listings are summarized below.

Our list presented below, is titled "Industrial Market Leasing" and presents the evidence of our research.

Industrial Market Leasing									
Address	Total Area (sf)	Office Ratio	Lease Commence	Lease Term	Clear Height(ft)	Truck Doors	Net Rent psf	TMI	Comments
Leased									
20 Norelco Drive, North York	326,325	2%	Oct-10	5 yrs	21	39 ft	$6.00	$2.98	Multi-tenant building
5900 Finch Ave E, Scarborough	113,845	36%	Sep-11	5 yrs	25	-	$4.75	$4.05	15c increases in 3rd & 5th year Freestanding
240 Courtney Park Dr E, Mississauga	106,542	11%	Jan-11	5 yrs	26	6	$4.50	$2.10	Freestanding
591 Basaltic Rd., Vaughan	100,000	10%	Oct-11	3 yrs	24	8	$4.00	$1.74	Freestanding
75 Doney Cresc, Vaughan	141,658	10%	Sep-11	5 yrs	18	10	$3.75	$2.05	25c increase in 4th year Multi-unit building
107 Summerlea Rd., Bramalea	192,609	5%	Sep-10	5 yrs	22	23	$3.75 average	$2.00 esti	Freestanding
7881 Keele St., Vaughan	154,004	5%	Nov-11	5 yrs	21	12	$3.65	$2.75	Multi-tenant building
2695 Meadowvale Blvd, Mississauga	219,220	8%	Jan-11	3 yrs	30	14	$3.25	$1.76	Multi-unit building
2695 Meadowvale Blvd, Mississauga (same)	210,882	4%	Jan-11	3 yrs	30	14	$3.25	$1.76	Multi-unit building
7900 Keele St., Vaughan	277,000	7%	Jan-11	5 yrs	24	8	$3.10	$2.40	Freestanding
Address	Total Area (sf)	Office Ratio	Lease Commence	Lease Term	Clear Height	Truck Doors	Net Rent psf	TMI	Comments
Listed									
351 Passmore Avenue, Markham	161,612	8%	current	5 - 10 yrs	33	7	$3.75 asking	$3.15	Freestanding
420 Nugget Ave., Scarborough	138,738	3%	current	3 - 10 yrs	28	11	$4.95 asking	$3.51	Freestanding
Address	Total Area (sf)	Office Ratio	Lease Commence	Lease Term	Clear Height	Truck Doors	Net Rent psf	TMI	Comments
Subject									
715 Milner, Scarborough	257,612	25%			23 & 40				Freestanding

The net rental rates ranged from $3.10 psf to $6.00 psf. The ones closest in size to the Subject were in the $3.25 psf range, however there was a much larger transaction at $6.00 psf. Only one of the comparable lease transactions had office ratios which approached the Subject's 25%; most were in the 5% to 10% range, while all provided truck-level loading doors which exceeded the Subject's.

If we were to consider the freestanding buildings, the rental rates were in the $3.75 psf to $4.50 psf range, providing an average of just over $4.00 psf net, however, these too did not have the high office ratio of the Subject.

The Subject's warehouse offers good quality space with 138,000 square feet having 23 feet of clear height and 60,000 square feet having 40 feet of clear height. The building is fully air-conditioned, includes additional mezzanine space (not included in these square footages), has a guided system for high bay stacking in the 40 foot portion and provides large, enclosed shipping and receiving area. The only drawback affecting the utility of the building is the centralized location of the shipping/receiving area, whereby efficiency is compromised, as additional time is required to reach the different areas of the warehouse. (The elongated design of the building and single shipping area is a result of the site configuration.)

Having regard to the forgoing and to the state of the industrial real estate market, we are of the opinion that a market rental rate for the Subject property would be **$4.50 psf**.

REVENUE AND EXPENSE ANALYSIS

Operating revenue is generated through three typical sources in an industrial/commercial building: *basic rent* and *percentage rent; miscellaneous* income; and *recovery* income.

Operating expenses include: disbursements incurred in the operation, management and ownership of the property. Such expenses can be recoverable (reimbursable) and non-recoverable (non-reimbursable) expenses. The distinction between these two types of expenses relates to their allocation, which is usually determined by the lease: recoverable expenses are the responsibility of the tenants; non-recoverable expenses are the responsibility of the landlord.

Revenue

Basic Rent

The basic rent revenue has been based upon the current market net rents estimated for industrial of $4.50 PSF as described above.

Other Revenue - Parking, Storage, Miscellaneous, Etc.

Parking is not subject to charges. No other significant sources of revenue are anticipated at the present time.

Recoveries (Reimbursement) Income

Most industrial and office leases are structured on an absolute net basis with Operating Expenses anticipated to be paid directly by the tenant or recovered, unless stipulated otherwise.

Vacancy and Collection Loss Allowance

It is standard appraisal practice to provide an allowance for vacancy and credit loss in the Appraiser's Reconstructed and Stabilized Statement. Based upon a review of market conditions and occupancy, we have estimated an allowance equivalent to 3.0% of Potential Gross Income.

Expenses

Operating Expenses

We have not been provided with Operating Expenses such as Maintenance, Insurance, Taxes and Utilities. However a review of the TMI charges presented on the chart of "Market Leasing" indicated a range of $1.74 PSF to $4.05 psf. On average these indicated $2.52 PSF which is not dissimilar to the $2.42 PSF presented earlier by DTZ Barnicke for the Toronto average.

We have therefore utilized the $2.52 psf in our analysis.

Recoverable Expenses

Normally, most operating expenses and realty taxes are paid directly by the tenant or are recovered by the landlord. A management expense of 3.0% of Effective Gross Income has been included as a sufficient allowance for this expense.

Non-Recoverable Expenses

It is standard appraisal practice to provide an allowance for *structural repairs* that may be required from time to time. A provision of 1.5% of Effective Gross Income for the Subject is considered reasonable.

Leasing Commissions and Tenants' Inducements

For purposes of valuation, it is assumed that the Subject is fully leased at market rental rates as at the effective date of valuation. Therefore leasing commissions and tenant inducements associated with the leasing of vacant space have not been deducted in the valuation.

Capital Expenditures

Ongoing replacements and planned major repairs are generally paid directly by, or recovered from the tenant as part of operating costs. Major capital expenditures (such as the addition of space, major roof repairs/restoration, HVAC replacement, etc.) are of a one-time or occasional nature, and often non-recoverable. As such, these expenditures are generally separated from the regular operating budget expenses. We are not aware of any proposed capital expenditures at the Subject at this time.

Stabilized Income and Expense Statements

Below is the Stabilized Income and Expense Statements for 715 Milner Avenue, which form the basis of the estimated net operating income, used in the Direct Overall Capitalization Method which follows.

715 Milner Avenue Stabilized Income and Expense Statement			
		Stabilized Amount p/a	Per Sq. Ft.
Income			
Lease	257,612 sq.ft. @ $4.50	$1,159,254	$4.50
Recovery Revenue		$915,650	$3.55
Potential Gross Income (PGI)		**$2,074,904**	$8.05
Less: Vacancy & Bad Debt	3.00% of PGI	$62,247	$0.24
Effective Gross Income (EGI)		**$2,012,657**	**$7.81**
Reimbursable Expenses			
TMI		$649,182	$2.52
Utilities (excluding Hydro)		$206,090	$0.80
Management	3.00% of EGI	$60,378	$0.23
Total Reimbursable		**$915,650**	**$3.55**
Other Expenses			
Structural Repairs Allowance	1.50% of EGI	$30,190	$0.12
Net Operating Income		**$1,066,817**	**$4.14**

We estimate that if the Subject were fully leased at market rental rates the net operating income from the Subject, would be **$1,066,817**. It is this income that is capitalized to indicate a market value for the Subject property.

DIRECT CAPITALIZATION RATES

The Direct Capitalization method is based on the conversion of the net operating income into an indication of value. This is accomplished by dividing the net annual operating income by an appropriate overall rate that is derived from the market place. The derived capitalization rate is a reflection of the degree of risk involved in acquiring a particular property along with other investment characteristics of the property.

In the process of selecting an appropriate capitalization rate for the Subject, we have reviewed transactions of industrial investments within the Greater Toronto Area (GTA). The following transactions were considered relevant in providing an indication of appropriate capitalization rates for the Subject as of the effective date of this appraisal.

Industrial Building Capitalization Rates

Index	Address	Sale Date	Rentable Area (SF)	Site Area (ac)	Clear Height (ft)	Age	Office %	Consideration	Indicated OCR*
1	50 Kenview Boulevard, Brampton	Aug-11	254,500	11.43	28'	2000	13%	$20,105,000	6.2%
2	8550 Airport Rd., Brampton	Jul-10	264,018	11.23	24' & 28'	1981	15%	$23,700,000	7.6%
3	7550 Tranmere Dr., Mississauga	Mar-11	91,346	5.85	24'	1987	16%	$6,950,000	7.8%
4	55 & 65 Carrier Drive, Toronto	Dec-10	126,359	6.14	21.5'	1976	22%	$7,350,000	6.7%
5	53-83 Bakersfield Street,, Toronto	Oct-10	100,720	4.01	16'-20'	1973	14%	$4,800,000	8.3%
6	101 MacIntosh Boulevard, Vaughan	Oct-10	142,388	7.11	20'	1991	11%	$11,500,000	7.9%
	Subject - 715 Milner Avenue, Toronto		**257,622**	**13.65**	**23' & 40'**	**1978**	**25%**		

The six charted capitalization rates ranged from 6.2% to 8.3% and averaged 7.42%. The three most recent sales averaged 7.2% indicating the downward trend indicated by CBRE's findings presented in our Industrial Overview. That report indicated a range of 7.25% to 7.75% for Class B industrial buildings

Based on the foregoing, it is our opinion that an overall capitalization rate of **7.25%** is appropriate.

The following is an indication of the Subject property's market value based on the Income Approach utilizing the Direct Capitalization Method

Net Income	$	1,066,817
Capitalization Rate		7.25%
Capitalized Value	$	14,714,717
Rounded	**$**	**14,715,000**

SUMMARY AND CONCLUSIONS

We have estimated the *Market Value* of the Subject based upon two approaches that indicated the following indications of value:

Direct Comparison Approach:	$14,800,000
Income Approach:	$14,715,000

Given that the two approaches are in close accord, and given that the intended sale is to an owner/user, we would place full weight on the Direct Comparison Approach,.

Therefore, it is our opinion that the Market Value of the Subject Property known as 715 Milner Avenue, Toronto, as of Dec 6, 2011 is:

FOURTEEN MILLION EIGHT HUNDRED THOUSAND DOLLARS
$14,800,000

ASSUMPTIONS AND LIMITING CONDITIONS

1. This appraisal is not valid unless original signature(s) are evident.
2. Existing and typical financing for the current market have been both examined and considered.
3. It is assumed that the sub-soil, structure, materials and workmanship are and will be considered as good and acceptable by the market. In addition, mechanical and electrical facilities are assumed to be in good working order. No responsibility has been assumed for the requirements of government, public or private bodies.
4. The appraiser is not qualified to comment on environmental issues that may affect the market value of the property appraised, including, but not limited to, pollution or contamination of land, buildings, water, groundwater or air. Unless expressly stated, the property is assumed to be free and clear of pollutants and contaminants, including but not limited to moulds or mildews or the conditions that might give rise to either, and in compliance with all regulatory environmental requirements, government or otherwise, and free of any environmental condition, past, present or future, that might affect the market value of the property appraised.
5. If the party relying on this report requires information about environmental issues then that party is cautioned to retain an expert qualified in such issues. We expressly deny any legal liability relating to the effect of environmental issues on the market value of the property appraised.
6. All data used and described herein whether provided for in this appraisal or obtained in the market place is assumed to be correct and reliable.
7. Property rights in the Subject being appraised are those of the "fee simple" interest. We assume no responsibility for matters that are legal in character. The legal description is assumed to be correct.
8. We are not required to give testimony or attendance in court by reason of the appraisal, with reference to the properties in question, unless arrangements have been previously made.

9. The illustrations in this report are included to assist the reader in visualizing the information and are not warranted as to their accuracy.

10. It is assumed that the Subject complies in all material respects with all restrictive covenants affecting the site, and is in compliance with all the requirements of law, including zoning, land classification, building, planning, fire and health by-laws, rules, regulations, orders and codes of all federal, provincial, regional and municipal governmental authorities having jurisdiction with respect thereto.

11. It is assumed that, save and except for encumbrances as may be permitted, there are no easements, rights-of-way, building restrictions or other restrictions so affecting the site as to prevent or adversely affect the operation of the property or so as to materially and adversely affect the market value.

12. This report has been prepared for the exclusive use of ***Toronto Hydro*** for acquisition considerations. Possession of this report, or a copy thereof, does not carry with it the right to reproduction or publication, in whole or in part, nor may it be used for any other purpose without the written consent and approval of the firm, MacKenzie, Ray, Heron and Edwardh.

13. Neither all nor any part of the contents of this report shall be disseminated or otherwise conveyed to the public through advertising media, public relations media, news media, sales media or any other media for public communication without the prior written consent and approval of the firm, MacKenzie, Ray, Heron and Edwardh.

14. The estimate of market value is predicated upon the condition that the Subject would be sold on a cash basis. Other financial arrangements, good or cumbersome, may affect the price at which this property might sell in the open market.

This valuation is subject to the following Extraordinary Assumption:

15. **We did not obtain an opinion on the state of title or any encumbrances, and are not qualified in these legal matters. We have not read all the documents registered against the title.**

CERTIFICATION

Re: Appraisal of 715 Milner Avenue
Toronto, Ontario

We certify that to the best of our knowledge and belief:

- The information reported is true and factual and has been verified where possible.
- This report is subject only to the assumptions and limiting conditions identified in the Letter of Transmittal and schedule of Assumptions and Limiting Conditions.
- We have no past, present, or contemplated interest in the property appraised, and have no personal interest or bias with respect to the parties involved.
- Neither employment to undertake this appraisal nor our compensation is contingent upon the amount of value reported.
- The reported analyses, opinions and conclusions were developed, and this report has been prepared, in conformity with the requirements of the Code of Professional Ethics and the Uniform Standards of Professional Appraisal Practice of the Appraisal Institute of Canada. Under these requirements, the Appraisal Institute of Canada has the right to review this report.
- The Appraisal Institute of Canada has a Mandatory Recertification Program for designated members. As of the date of this report John Cochrane has fulfilled the requirements of the program.
- John Cochrane made a personal inspection of the property on December 6, 2011.
- The market value of the fee simple interest in 715 Milner Avenue, Scarborough, based on the exposure time as outlined on page 13, as of December 6, 2011 is:

FOURTEEN MILLION EIGHT HUNDRED THOUSAND DOLLARS

$14,800,000

MACKENZIE, RAY, HERON & EDWARDH

John Cochrane
AACI, P. App.

Dated: December 15, 2011

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO CONSUMERS COUNCIL OF CANADA

UNDERTAKING NO. J2.2:

Reference(s):

To explain what portion of purchase price is in rate base and when it entered rate base, and how that relates to the budget for the location of, being 26.8.

RESPONSE:

The purchase price of the 715 Milner property was $17.3 million. This amount was incurred in 2011, but was not included in Toronto Hydro's rate base in the 2011 rebasing application (EB-2010-0142) for the reasons set out in Toronto Hydro's response to interrogatory 2A-VECC-9. Toronto Hydro has proposed to include this amount in its 2015 opening rate base.

The property at 715 Milner has an estimated renovation budget of $26.8 million (Exhibit 2B, Section E8.3, page 19), of which $17.8 million was budgeted for the 2015 to 2019 period as of September 2014.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO SOCIETY OF ENERGY PROFESSIONALS

UNDERTAKING NO. J2.3:

Reference(s): **2B "Distribution System Plan" and 4A "Operating Costs: OM&A"**

With reference to Society Technical Conference questions filed earlier, to provide a live excel version of the Appendix.

RESPONSE:

Please refer to Toronto Hydro's response to Undertaking No. J2.4 (Schedule J2.4).

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO SOCIETY OF ENERGY PROFESSIONALS

UNDERTAKING NO. J2.4:

Reference(s):

To create a table showing the category of executive excluding management, similar to the one provided in VECC IR 48

RESPONSE:

Please refer to Appendix A. This table has also been filed in Excel format, in response to Undertaking J2.3.

	2011 Actuals	2012 Actuals	2013 Actuals	2014 BRIDGE	2015 TEST
Number of Employees (FTEs including Part-Time)[1]					
Executive	9.2	7.4	8.0	6	6
Management (excluding executive)	52.7	45.6	47.2	48	49
Supervisory	186.5	164.4	166.3	170	170
Non-Management (Non-Union, Non-Supervisory)	238.3	242.8	250.2	279	287
CUPE	1,159.3	1,048.1	962.7	921	925
Society	53.4	56.8	51.0	52	50
Contract for a Defined Term[1]	37.6	35.8	42.1	60	77
Total	1,737.0	1,600.8	1,527.4	1,537	1,564
Total Salary and Wages (including overtime and incentive pay					
Executive	$ 2,840,668	$ 2,554,144	$ 2,661,984	$ 2,469,509	$ 2,424,089
Management (excluding executive)	$ 8,663,257	$ 7,930,713	$ 8,254,968	$ 8,888,300	$ 9,252,273
Supervisory	$ 23,519,791	$ 21,056,378	$ 21,612,100	$ 21,912,108	$ 22,420,927
Non-Management (Non-Union, Non-Supervisory)	$ 21,894,101	$ 23,620,194	$ 24,258,726	$ 28,169,003	$ 29,769,166
CUPE	$ 111,838,939	$ 96,489,851	$ 93,579,854	$ 91,767,199	$ 93,499,770
Society	$ 5,757,843	$ 6,010,237	$ 5,729,052	$ 6,219,276	$ 6,102,405
Contract for a Defined Term[1]	$ 2,591,089	$ 2,546,373	$ 2,790,818	$ 4,464,343	$ 5,962,522
Total	$ 177,105,689	$ 160,207,891	$ 158,887,502	$ 163,889,738	$ 169,431,152
Total Benefits (Current + Accrued)					
Executive	$ 972,941	$ 719,048	$ 752,393	$ 700,663	$ 651,611
Management (excluding executive)	$ 2,727,764	$ 2,488,349	$ 2,744,978	$ 2,921,727	$ 2,934,914
Supervisory	$ 7,313,972	$ 6,827,249	$ 7,558,586	$ 7,720,279	$ 7,589,611
Non-Management (Non-Union, Non-Supervisory)	$ 7,866,282	$ 8,484,867	$ 9,335,845	$ 10,338,736	$ 10,498,007
CUPE	$ 36,431,653	$ 34,506,022	$ 35,171,649	$ 32,500,903	$ 31,769,774
Society	$ 1,966,724	$ 2,145,710	$ 2,128,201	$ 2,150,794	$ 2,024,985
Contract for a Defined Term[1]	$ 192,730	$ 194,587	$ 238,837	$ 341,244	$ 397,414
Total	$ 57,472,066	$ 55,365,832	$ 57,930,489	$ 56,674,344	$ 55,866,316
Total Compensation (Salary, Wages, & Benefits)					
Executive	$ 3,813,609	$ 3,273,192	$ 3,414,377	$ 3,170,172	$ 3,075,700
Management (excluding executive)	$ 11,391,021	$ 10,419,062	$ 10,999,947	$ 11,810,027	$ 12,187,187
Supervisory	$ 30,833,763	$ 27,883,627	$ 29,170,686	$ 29,632,387	$ 30,010,538
Non-Management (Non-Union, Non-Supervisory)	$ 29,760,384	$ 32,105,061	$ 33,594,572	$ 38,507,738	$ 40,267,173
CUPE	$ 148,270,591	$ 130,995,873	$ 128,751,502	$ 124,268,102	$ 125,269,544
Society	$ 7,724,567	$ 8,155,947	$ 7,857,254	$ 8,370,070	$ 8,127,390
Contract for a Defined Term[1]	$ 2,783,820	$ 2,740,961	$ 3,029,655	$ 4,805,587	$ 6,359,936
Total	$ 234,577,755	$ 215,573,723	$ 216,817,992	$ 220,564,082	$ 225,297,468
Average Total Compensation (Salary, Wages, & Benefits)					
Executive	$ 416,383	$ 444,297	$ 426,797	$ 503,202	$ 512,617
Management (excluding executive)	$ 216,221	$ 228,406	$ 233,000	$ 245,021	$ 248,718
Supervisory	$ 165,310	$ 169,659	$ 175,432	$ 174,822	$ 177,053
Non-Management (Non-Union, Non-Supervisory)	$ 124,894	$ 132,211	$ 134,297	$ 137,823	$ 140,304
CUPE	$ 127,892	$ 124,981	$ 133,740	$ 134,879	$ 135,427
Society	$ 144,547	$ 143,667	$ 154,130	$ 162,526	$ 162,548
Contract for a Defined Term[1]	$ 74,071	$ 76,670	$ 71,992	$ 79,655	$ 82,597
Total	$ 135,047	$ 134,665	$ 141,952	$ 143,540	$ 144,098
Total Compensation Expensed	$ 139,376,030	$ 137,907,417	$ 133,422,085	$ 137,588,178	$ 140,947,660
Total Compensation Capitalized	$ 95,201,725	$ 77,666,306	$ 83,395,907	$ 82,975,905	$ 84,349,808

[1] Contract for a Defined Term refers to "Temporary staff"

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO SOCIETY OF ENERGY PROFESSIONALS

UNDERTAKING NO. J2.5:

Reference(s):

To provide the head count and the annual compensation for the supervisory staff, how that tracks and how the head count changes from year to year and the annual compensation changes from year to year.

RESPONSE:

Please refer to the Appendix filed in response to Undertaking No. J2.4 (Schedule J2.4).

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO SOCIETY OF ENERGY PROFESSIONALS

UNDERTAKING NO. J2.6:

Reference(s):

With respect to 4A-Society-5, the table concerning FTEs, to provide a breakdown and updated table.

RESPONSE:

Please refer to the table below.

	2011	2012	2013	2014	2015	2016	2017	2018	2019
EXECUTIVE	9.2	7.4	8.0	6	6	6	6	6	6
SENIOR MGMT	52.7	45.6	47.2	48	49	49	49	49	49
SUPERVISORY	186.5	164.4	166.3	170	170	176	176	176	176
OTHER NON UNION	238.3	242.8	250.2	279	287	269	269	269	269
CUPE	1159.3	1048.1	962.7	921	925	972	967	957	947.5
SOCIETY	53.4	56.8	51.0	52	50	54	54	54	54
CONTRACT FOR DEFINED TERM	37.6	35.8	42.1	60	77	55	55	55	55
TOTAL	**1,737.0**	**1,600.8**	**1,527.4**	**1,537**	**1,564**	**1,581**	**1,576**	**1,566**	**1,556.5**

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO SOCIETY OF ENERGY PROFESSIONALS

UNDERTAKING NO. J2.7:

Reference(s):

With reference to IR Society 6 part b, to provide data for the year 2014 and 2015.

RESPONSE:

Please see the table below.

Year	Benefit Savings	Average Savings per FTE
2014	$ 1,562,520.02	$ 25,898.12
2015	$ 1,811,414.10	$ 23,524.86

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO SOCIETY OF ENERGY PROFESSIONALS

UNDERTAKING NO. J2.8:

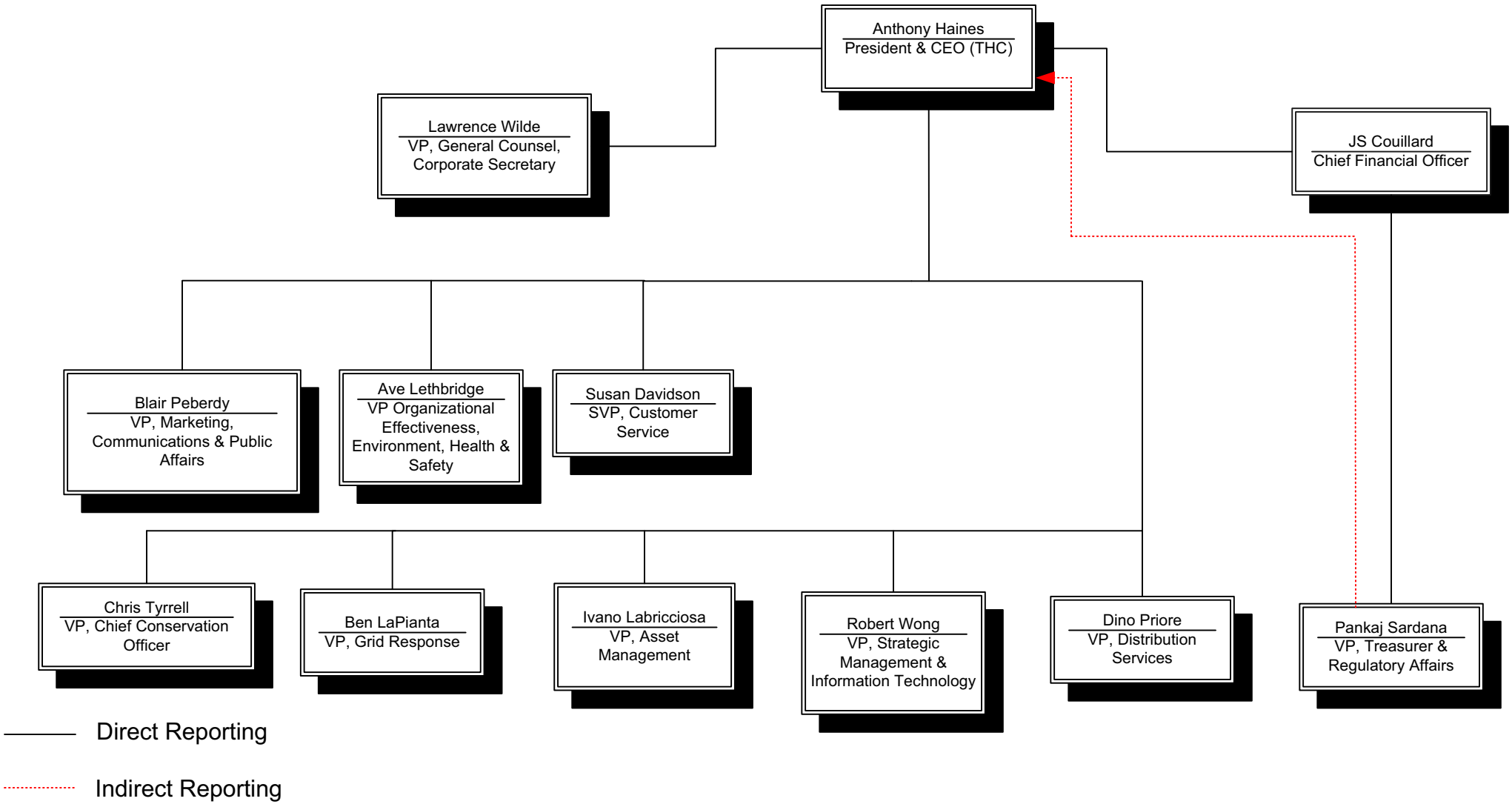
Reference(s):

To check the 2011 rebasing file for any existing org chart and if something was filed, to refile it.

RESPONSE:

The organizational chart provided as part of the 2011 rebasing application (EB-2010-0141) is attached as Appendix A.

Toronto Hydro-Electric System Limited
Organization Chart



TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO CONSUMERS COUNCIL OF CANADA

UNDERTAKING NO. J2.9A:

Reference(s):

To provide an explanation as to why there are increases in the four areas: the external services under billing, remittance, and meter data management, other under billing, remittance, and meter data management, other under collections, and external services under customer relationship management.

RESPONSE:

There increases in the four referenced areas are driven by the following considerations:

1) **External Services – Billing, Remittance, and Meter Data Management:**
   Increases in this category are a result of contracted project resources required to develop and implement large technology projects related to billing data collection and management, as well as additional contracted clerical resources to process higher transactional volumes resulting from customer growth. Costs are also increasing due to a contracted price increase for outsourced data collection services and a data collection volume increase due to growth in the number of suite meters installed.

2) **Other – Billing, Remittance and Meter Data Management:**
   Increases in this category are attributable to the significant increase in Canada Post rates that took effect part way through 2014, and an increase in the accounting provision for bad debt expenses for miscellaneous (non-electricity) accounts receivable.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO CONSUMERS COUNCIL OF CANADA

3) **Other – Collections**:

The increase in this category is attributable to an increase in the accounting provision for bad debt expenses related to electricity accounts, based on forecasted customer base growth and higher average bill amounts.

4) **External Services – Customer Relationship Management**:

Increases in this category are related to contracted project resources required to support technology projects related to system updates; new on-line service offerings, including those related to power outage communications; and contracted clerical resources to process higher transactional volumes resulting from customer growth. Also included are expenditures for additional customer communications work related to electricity rates, emergency preparedness information, new energy management tools and self-service offerings; and engaging customers on opportunities to improve Toronto Hydro's service delivery options, and fulfill the OEB requirement with respect to the Customer Satisfaction Survey Scorecard Metric.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ASSOCIATION OF MAJOR POWER CONSUMERS IN ONTARIO

UNDERTAKING NO. J2.9B:

Reference(s):

To provide THESL's budgeted and actual overtime for the years [2011] to 2015.

RESPONSE:

The table below provides a breakdown of Toronto Hydro's overtime expenditures for the years 2011 to 2015.

2011 Actual	2012 Actual	2013 Actual	2014 Bridge	2015 Test
22.6	10.8	16.3	11.5	11.7

Toronto Hydro has put additional controls in place relating to the approval of overtime pay. The utility continues to review its overtime pay practices on a regular basis to ensure prudent management of these costs.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO CONSUMERS COUNCIL OF CANADA

UNDERTAKING NO. J2.9C:

Reference(s):

With reference to the chart found at Exhibit 4A, Tab 2, Schedule 1, to provide the number of kilometres of line and the number of trees pruned annually.

RESPONSE:

Please refer to the table below.

	2011 Actual	2012 Actual	2013 Actual	2014 Bridge	2015 Test
Vegetation Management Expenditures ($ M)	2.5	2.5	2.8	2.6	4.4
Kilometres Trimmed	1,454	1,285	1,772	1,290	2,100
Trees Trimmed	45,742	44,311	51,125	N/A*	N/A*

*Toronto Hydro does not forecast the quantity of trees to be trimmed in a given year.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO SCHOOL ENERGY COALITION

UNDERTAKING NO. J2.10:

Reference(s):

To explain the increase in vegetation management spend.

RESPONSE:

As explained in Exhibit 4A, Tab 2, Schedule 1, page 34, "the 2015 expenditures are greater than those in prior years due to plans to increase tree pruning accomplishments by approximately 30% over historic averages and to "storm harden" the system".

The undertaking was taken in the context of a question related to the UMS Group Report contained in 1B-SEC-8, Appendix A, and specifically the Vegetation Management section contained on page 73. Toronto Hydro's plans to increase Vegetation Management expenditures are consistent with Industry Practice as highlighted by UMS (i.e., "to optimize the cycle" and "to shift the focus to include the removal of overhang (outside the clearance required by the tree trimming specification)"). Toronto Hydro further notes that the UMS Group found that Toronto Hydro's "spending levels are well below industry norms[1]".

[1] UMS Report, 1B-SEC-8, Appendix A, slide 73.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ONTARIO ENERGY BOARD STAFF

UNDERTAKING NO. J2.11:

Reference(s):

To provide the source of the projections from the mathematical model.

RESPONSE:

As referenced in the Exhibit 2B, Section D3, pages 19-20, the Reliability Projection does not rely on a specific mathematical model. Rather, the projections constitute the results of an in-depth analysis of:

a) The existing state of Toronto Hydro assets (asset demographics);
b) The reliability performance of the system (historical reliability); and
c) The expected effects of the planned programs on the future state of the system.

The actual reliability analysis is performed at the outage cause code level (e.g., defective equipment, vegetation contact etc.) using various trending and regression techniques to establish a long term trend of each cause code. The trending and reliability impacts of each program are established through an in-depth analysis of the actual work performed and the potential impacts from further work. Interdependencies between programs and benefits are combined to form an overall system-wide look at the benefit of the overall capital program.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ONTARIO ENERGY BOARD STAFF

UNDERTAKING NO. J2.12:

Reference(s):

To explain how THESL treated the $25.8 million in the PILs model, whether THESL had any options on how to treat it for tax purposes; why THESL chose the option it did, and to explain possible impact on PILs of choosing another option, for 2014 and 2015.

RESPONSE:

The IFRS derecognition of $25,782,326 for 2014 does not appear as an addition in the 2014 taxable income calculation because this amount is not included in accounting net income used for purposes of calculating PILs in that year. The derecognition balance is recorded for accounting purposes on the balance sheet only as an increase to the regulatory asset account and a decrease in property plant and equipment. The balance represents a change in valuation of property plant and equipment under different accounting standards and is not a disposition for tax purposes. It is therefore not included in taxable income for calculating PILs in 2014. It would not be appropriate to choose a different option for tax purposes in 2014.

In 2015, it would be appropriate to include the balance in net income for purposes of calculating PILs because the derecognition balance would be cleared and added to taxable income. The 2015 PILs model submitted does not include the addition of $25,782,326 in its taxable income. Once the balance is approved for clearance, a PILs gross up will be added to the balance.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ONTARIO ENERGY BOARD STAFF

UNDERTAKING NO. J2.13:

Reference(s):

To confirm whether the 8.5 is an IFRS number or a USGAAP number.

RESPONSE:

Toronto Hydro confirms that the $8,521,000 is an IFRS number.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ONTARIO ENERGY BOARD STAFF

UNDERTAKING NO. J2.14:

Reference(s):

To confirm that the numbers used in the PILs model for 2014 are USGAAP numbers.

RESPONSE:

Toronto Hydro confirms that the numbers used in the PILs model for 2014 are presented under IFRS.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ONTARIO ENERGY BOARD STAFF

UNDERTAKING NO. J2.15:

Reference(s):

To explain why THESL is proposing to include CWIP in Account 1575.

RESPONSE:

The Accounting Procedures Handbook Article 510 (Transitional Issues Relating to the Adoption of IFRS) page 13 states:

> Although use of the rate-regulated deemed cost exemption will not result in any adjustment to the net carrying amount of PP&E and intangible assets at the transition date, due to the IFRS accounting requirements for certain PP&E and intangible asset related areas (e.g., capitalized indirect costs, useful lives, interest capitalization, customer contributions), the IFRS carrying amount of items of PP&E and intangible assets for which the rate-regulated deemed cost exemption was elected will not likely be equal to the previous Canadian GAAP carrying amount of these items as at December 31, 2011. For any difference in carrying amount that exists at the changeover date, a distributor must record a journal entry such that the resulting balance recorded in regulatory accounts contained in the USofA is in compliance with IFRS. The offset to this adjusting entry should be recorded in Account 1575, IFRS-CGAAP Transitional PP&E Amounts. [*Emphasis added*]

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ONTARIO ENERGY BOARD STAFF

Page 19 further states:

> As noted above, adjustments required at the transition date are generally recognized directly in opening retained earnings. In respect of PP&E, a distributor must use Account 1575, IFRS-CGAAP Transitional PP&E Amounts, to record differences arising as a result of accounting policy changes caused by the transition from previous Canadian GAAP to modified IFRS…

Toronto Hydro's interpretation of the above noted passages is that <u>all</u> adjustments (including capitalized interest) related to PP&E and intangible assets that would have been booked as an adjustment to retained earnings should be recognized in Account 1575. The difference in capitalized interest (i.e., Allowance for Funds Used During Construction or AFUDC) between US GAAP and MIFRS/IFRS would have an impact to retained earnings. Therefore, Toronto Hydro believes CWIP balances between these two standards should be recorded in Account 1575.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ONTARIO ENERGY BOARD STAFF

UNDERTAKING NO. J2.16:

Reference(s):

To provide accounting handbook standards underlying change in treatment of land lease.

RESPONSE:

Under US GAAP, per Accounting Standards Codification 840-10-25-37 – Leases,

> If land is the sole item of property leased and either the transfer-of-ownership criterion in paragraph 840-10-25-1(a) or the bargain-purchase-option criterion in paragraph 840-10-25-1(b) is met, the lessee shall account for the lease as a capital lease. Otherwise, the lessee shall account for the lease as an operating lease.

In accordance with the above definition, land leases with a 99-year terms are considered operating leases under US GAAP because the lease agreements do not include any terms that would allow Toronto Hydro to obtain ownership at the end of the lease term. As such, land leases were not capitalized as part of fixed assets under US GAAP.

Under IFRS, the land leases are considered a finance lease because the significant risks and rewards of ownership of the land are substantially transferred to Toronto Hydro, as set out in IAS 17 – Leases, paragraph 8:

> A lease is classified as a finance lease if it transfers substantially all the risks and rewards incidental to ownership. A lease is classified as an operating

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ONTARIO ENERGY BOARD STAFF

lease if it does not transfer substantially all the risks and rewards incidental to ownership.

The accounting treatment under IFRS is the same treatment under mIFRS based on the Accounting Procedures Handbook, Article 425 – Leases, pages 6 and 8.

At page 6,

> In determining whether the land element is an operating or a finance lease, an important consideration is that land normally has an indefinite economic life. [paragraph 15A]. A lease term for the major part of the economic life of the asset can indicate that a lease is a finance lease, even if title is not transferred. The Basis for Conclusions ("BC") which accompanies, but is not part of, IAS 17 provides additional analysis in determining whether the land element is an operating or a finance lease.
>
> (a) In a 99-year lease of land and buildings, the significant risks and rewards associated with the land during the lease term are transferred to the lessee during the lease term, regardless of whether title will be transferred; and
>
> (b) The present value of the residual value of the property with a lease term of several decades would be negligible and therefore accounting for the land element as a finance lease is consistent with the economic position of the lessee. [BC8B, BC8C]
>
> It follows that a long lease term may indicate that a lease of land is a finance lease. This is not because the lease term will thereby cover the major part of the

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ONTARIO ENERGY BOARD STAFF

economic life of the land, but because in a long lease of land the risks and rewards retained by the lessor through its residual interest in the land at the end of the lease are not significant when measured at inception. Conversely, a short term lease of land is unlikely to be a finance lease as the risks and rewards retained by the lessor through its residual interest in the land at the end of the lease are likely to be significant."

At page 8,

> A "finance" lease is essentially similar to a "capital" lease under previous Canadian GAAP. Accordingly, a finance lease will be given ratemaking consideration for inclusion in rate base.

The lease term for the land leases in quest is 99 years. In addition, at the end of the lease term Toronto Hydro may continue to lease the land on a month to month basis, which Toronto Hydro will likely opt to continue. Because of the long lease term and the likely continuance of Toronto Hydro leasing the land after the lease term has ended, the significant risks and rewards of ownership would substantially be transferred to Toronto Hydro. As such, under IFRS/MIFRS, the land leases are considered as finance leases, and are capitalized as part of fixed assets.

Although the difference in accounting treatment of the land lease under US GAAP and IFRS/MIFRS will cause a difference in the PP&E balance, there will be no impact to Account 1575 as a result of the following journal entries:

Dr. PP&E	$7.2 million	
Cr. Account 1575		$7.2 million

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ONTARIO ENERGY BOARD STAFF

1	Dr. Account 1575	$7.2 million	
2	Cr. Prepaid Expense		$7.2 million.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ONTARIO ENERGY BOARD STAFF

UNDERTAKING NO. J2.17:

Reference(s):

With reference to IR 2A-OEB Staff-30, page 2, part b, to explain why THESL believes the DHC methodology is in compliance with the OEB's decision.

RESPONSE:

Toronto Hydro's belief that the Depreciated Historic Cost ("DHC") methodology is in compliance with the OEB's decision in EB-2009-0180 et al. is based on the following passages from the August 3, 2011 Decision and Order: [1]

> In the February Decision, the Board found that the Applicants' DCF based value was not appropriate for regulatory purposes and confirmed that for regulatory purposes, the Board relies on the depreciated historic cost ("DHC") of assets...
> …
> The Board sought to have the Applicants estimate the relationship or proportionality between DHC and DRC as a means to establish a reasonable transfer value rooted in DHC…
>
> Given that historic costs are unavailable, the Board must consider a "next best" solution and concludes that the DRC valuation methodology is a

[1] EB-2009-0180 et al, Decision and Order (August 3, 2011) at pages 14 and 15.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ONTARIO ENERGY BOARD STAFF

reasonable approach to establish a starting point for the determination of an appropriate transfer value.

The Applicants have provided some descriptive analysis illustrating the comparative effects of a DHC valuation versus a DRC valuation. It is not possible to gain an optimum level of precision as to the expected proportional relationship between the two, but it is not disputed that the DHC analysis of a group of assets will result in a lower value than the DRC valuation. The Board notes that the basis on which the Applicants have made their proposal has the effect of discounting the DRC value by approximately 40%. While the Board dismisses the reasoning provided by the Applicants in support of the proposal, it will accept the value itself. The Board does so in consideration of the particularly unusual circumstances related to the ownership and accounting history of the assets in question.

To summarize, the OEB preferred to value the assets using the DHC methodology. However, because historical costs were not available, the OEB considered that the next best solution was to use the depreciated replacement cost ("DRC") valuation methodology to establish a starting point for the determination of an appropriate transfer price, and to estimate the relationship or proportionality between DHC and DRC to establish a reasonable transfer value rooted in DHC.

For the reasons set out above, Toronto Hydro believes that the DHC methodology complies with the OEB's Decision in EB-2009-0180 et al. The detailed analysis that Toronto has undertaken to update the value of the transferred assets in this proceeding

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO ONTARIO ENERGY BOARD STAFF

provides a better approximation for the DHC of the transferred assets, and therefore better adheres to the principles of the OEB Decisions.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO SCHOOL ENERGY COALITION

UNDERTAKING NO. J2.18:

Reference(s):

With reference to 1B-BOMA-81, to explain which of the unused variables would have a reasonable likelihood of a statistically significant correlation to cost.

RESPONSE (Provided by PSE):

Without specific details on how the variable would be constructed and the underlying data, PSE is unable to formulate an opinion on the reasonable likelihood of each variable being statistically significant.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO SCHOOL ENERGY COALITION

UNDERTAKING NO. J2.19:

Reference(s): 1B-SEC-8, Appendix A

With reference to the UMS group productivity and programming benchmark study filed at 1B-SEC-8, Appendix A, to provide the background and genesis of the report and the parameters provided to the consultant.

RESPONSE:

The UMS study was commissioned due to Toronto Hydro's interest in reviewing its productivity performance at the functional level. An in-depth benchmarking study was desired in order to validate existing Toronto Hydro's practices compared to industry peers and to provide meaningful recommendations to further enhance productivity performance.

To conduct this independent, third party benchmarking, Toronto Hydro provided the following parameters to the consultant:

1. Identify whether THESL is more/less productive to North American peers at a high-level (including service/quality levels).
2. Identify specific gap areas (key processes) with lower productivity compared to North American Peers (including service/quality levels).
3. Identify best practices that we should retain or develop in different areas.
4. Identify specific business conditions to THESL vs. Ontario utilities and costs associated with these conditions.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO SCHOOL ENERGY COALITION

UNDERTAKING NO. J2.20:

Reference(s): 1B-SEC-8, Appendix A

With reference to the UMS group productivity and programming benchmark study filed at 1B-SEC-8, Appendix A, to advise whether Toronto Hydro agrees with the statement on page 40 of the report: "However, a meaningful comparison can be made by looking at the ratio between distribution capital investment levels committed to sustainment and system improvements and depreciation."

RESPONSE:

Yes, Toronto Hydro agrees with this statement. As further outlined on the same page 40 of the report, utilities that are in need "to keep pace with an aging electric infrastructure while meeting the need to integrate 21st century technology (e.g., automation, smart grid and smart meters) to meet the ever-rising customer expectations", demonstrate ratios in the range of 1.95 to 2.12. Toronto Hydro's average ratio for 2015-19 is 2.05 (jumping from 2.59 in 2015 to 1.74 in 2019).

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO SCHOOL ENERGY COALITION

UNDERTAKING NO. J2.21:

Reference(s): 1B-SEC-8, Appendix A

With reference to the UMS group productivity and programming benchmark study filed at 1B-SEC-8, Appendix A, to provide Toronto Hydro's response to recommendation regarding work management.

RESPONSE:

The question is related to page 87 of the Appendix A to 1B-SEC-8, which evaluates Toronto Hydro's Work Planning and Execution Effectiveness as "Competent: Maturity Level 1". UMS Group provided the following recommendations related to work management practices to further enhance Toronto Hydro performance in this area: UMS - OI-3, UMS - OI-4, UMS - PE-7, UMS - PE-10, UMS - WM-1, UMS - WM-3, UMS - WM-7, UMS - WM-8, UMS - WM-10, UMS - WM-11, UMS - WM-12, UMS - WM-13.

Toronto Hydro explained its progress on all of the aforementioned recommendations in its response to interrogatory 1B-SEC-8 on pages 3-20.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO SCHOOL ENERGY COALITION

UNDERTAKING NO. J2.22:

Reference(s):

To explain why there were changes in the KPIs between 2013 and 2014.

RESPONSE:

Toronto Hydro reviews the balanced Corporate Scorecard every year to recalibrate the strategic focus for the workforce. During this process, the scorecard is populated with the relevant Key Performance Indicators ("KPIs") for the year.

In 2014, the Corporation introduced four new KPIs ("First Call Resolution," "Key Account Worst Performing Feeders," "Productivity – Fleet" and "Productivity – Facilities"). Also, two KPIs were reintroduced to the 2014 scorecard from earlier years ("Attendance" and "Productivity – Operating Expenses").

"Net Income" and "THESL Regulated Capital" KPIs are part of the 2014 Corporate Scorecard but were omitted from the original response to interrogatory 1B-SIA-2 due to a formatting error. Toronto Hydro has filed as Appendix A to this undertaking response the corrected listing of KPIs for 2014 and has also filed a correction to the original undertaking response.

Key Performance Indicator (KPI)	2014 Target	2014 Results
Enhanced Customer Engagement (ECE)	214,000	N/A
First Call Resolution	78%	N/A
Safety - Total Recordable Injury Frequency (TRIF)	2.58	N/A
Attendance	5.75	N/A
SAIFI	1.53	N/A
SAIDI	72.5	N/A
Key Accounts - Worst Performing Feeders (KAWPF)	49	N/A
Productivity - Fleet Utilization	663	N/A
Productivity - Facilities - Occupied SqFt. Reduction	3,930	N/A
Productivity - Operating Expenses	$260.2	N/A

Key Performance Indicator (KPI)	2014 Target	2014 Results
Net Income	$103.5	N/A
THESL Regulated Capital	$395.0	N/A

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO SCHOOL ENERGY COALITION

UNDERTAKING NO. J2.23:

Reference(s):

To confirm whether a capital budget for expenditures for ongoing replacement and renewal of existing assets would be the outcome of the formula provided in Exhibit TCK2.1

RESPONSE:

Toronto Hydro does not believe that the formula provided in Exhibit TCK2.1 produces a meaningful budget for capital expenditures. Specifically, the definitions for a number of factors noted in the exhibit are vague and ambiguous. For example, "L" is defined as "the weighted average useful life of the utility's assets included in Gross PP&E." It is not clear to Toronto Hydro what weight is intended to be used for the weighted average. Further, this formula does not appear to account for important factors that are relevant to Toronto Hydro's capital budget, such as actual investment drivers.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO SCHOOL ENERGY COALITION

UNDERTAKING NO. J2.24:

Reference(s):

With reference to 5-CCC-45, to provide the full calculation of the ROE; and for each of those years, to provide the calculation to its component parts.

RESPONSE:

Please see Appendix A to this response.

Calculation of ROE on a Deemed Basis - Dec 31, 2005

UTILITY NAME: Toronto Hydro-Electric System Limited
YEAR END DATE: December 31, 2005

Regulated net income, as per OEB Trial Balance		$ 65,373,626	A
Adjustment to interest expense - for deemed debt		(1,785,819)	B
Adjusted regulated net income		$ 63,587,807	C
Rate Base:			
Cost of Power		$ 2,224,034,094	
Operating Expenses		$ 166,494,297	
Total		$ 2,390,528,392	
Working Capital Allowance %		15.00%	
Total Working Capital Allowance		$ 358,579,259	
Fixed Assets			
Opening Balance	$ 1,546,073,000		
Closing Balance	$ 1,511,193,000		
Average	$ 1,528,633,000	$ 1,528,633,000	
Total Rate Base - 2005		$ 1,887,212,259	D
Regulated Deemed Equity	35%	$ 660,524,291	E
Regulated Deemed Debt	65%	$ 1,226,687,968	F
Regulated Rate of Return on Deemed Equity		**9.63%**	G = C/E
ROE% from most recent Cost of Service application	**MBRR 2000**	**9.88%**	
Difference - maximum deadband 3%		**-0.25%**	

Interest adjustment on deemed debt:

Regulated Deemed Debt - as above	$ 1,226,687,968	
Weighted Average Interest Rate	6.80%	
	$ 83,414,782	
Interest expense as per the OEB trial balance	80,619,198	
	$ 2,795,584	
Utility Tax rate	36.12%	
Tax effect on interest expense	(1,009,765)	
	$ 1,785,819	B

Please input based on your utility in the grey cells.

Calculation of ROE on a Deemed Basis - Dec 31, 2006

UTILITY NAME: Toronto Hydro-Electric System Limited
YEAR END DATE: December 31, 2006

Regulated net income, as per OEB Trial Balance		$ 75,985,763	A
Adjustment to interest expense - for deemed debt		9,707,069	B
Adjusted regulated net income		$ 85,692,832	C
Rate Base:			
Cost of Power		$ 1,784,143,955	
Operating Expenses		$ 167,724,861	
Total		$ 1,951,868,815	
Working Capital Allowance %		15.00%	
Total Working Capital Allowance		$ 292,780,322	
Fixed Assets			
Opening Balance	$ 1,511,193,000		
Closing Balance	$ 1,545,833,000		
Average	$ 1,528,513,000	$ 1,528,513,000	
Total Rate Base - 2006		$ 1,821,293,322	D
Regulated Deemed Equity	35%	$ 637,452,663	E
Regulated Deemed Debt	65%	$ 1,183,840,660	F
Regulated Rate of Return on Deemed Equity		**13.44%**	G = C/E
ROE% from most recent Cost of Service application	**2006 COS**	**9.00%**	
Difference - maximum deadband 3%		**4.44%**	

Interest adjustment on deemed debt:

Regulated Deemed Debt - as above	$ 1,183,840,660	
Weighted Average Interest Rate	5.18%	
	$ 61,340,704	
Interest expense as per the OEB trial balance	76,536,492	
	-$ 15,195,788	
Utility Tax rate	36.12%	
Tax effect on interest expense	5,488,719	
	-$ 9,707,069	B

Please input based on your utility in the grey cells.

Calculation of ROE on a Deemed Basis - Dec 31, 2007

UTILITY NAME: Toronto Hydro-Electric System Limited
YEAR END DATE: December 31, 2007

Regulated net income, as per OEB Trial Balance		$ 65,621,236	A
Adjustment to interest expense - for deemed debt		5,198,077	B
Adjusted regulated net income		$ 70,819,313	C
Rate Base:			
Cost of Power		$ 1,841,121,199	
Operating Expenses		$ 167,626,864	
Total		$ 2,008,748,063	
Working Capital Allowance %		15.00%	
Total Working Capital Allowance		$ 301,312,209	
Fixed Assets			
Opening Balance	$ 1,545,833,000		
Closing Balance	$ 1,652,641,000		
Average	$ 1,599,237,000	$ 1,599,237,000	
Total Rate Base - 2007		$ 1,900,549,209	D
Regulated Deemed Equity	35%	$ 665,192,223	E
Regulated Deemed Debt	65%	$ 1,235,356,986	F
Regulated Rate of Return on Deemed Equity		**10.64%**	G = C/E
ROE% from most recent Cost of Service application	**2006 COS**	**9.00%**	
2007 is an IRM Year			
Difference - maximum deadband 3%		**1.65%**	

Interest adjustment on deemed debt:

Regulated Deemed Debt - as above	$ 1,235,356,986	
Weighted Average Interest Rate	5.18%	
2007 is an IRM Year	$ 63,991,492	
Interest expense as per the OEB trial balance	72,128,745	
	-$ 8,137,253	
Utility Tax rate	36.12%	
Tax effect on interest expense	2,939,176	
	-$ 5,198,077	B

Please input based on your utility in the grey cells.

Calculation of ROE on a Deemed Basis - Dec 31, 2008

UTILITY NAME: Toronto Hydro-Electric System Limited
YEAR END DATE: December 31, 2008

Regulated net income, as per OEB Trial Balance		$ 76,133,937	A
Adjustment to interest expense - for deemed debt		3,837,648	B
Adjusted regulated net income		$ 79,971,585	C
Rate Base:			
Cost of Power		$ 1,869,556,695	
Operating Expenses		$ 182,105,980	
Total		$ 2,051,662,675	
Working Capital Allowance %		12.50%	
Total Working Capital Allowance		$ 256,457,834	
Fixed Assets			
Opening Balance	$ 1,652,641,000		
Closing Balance	$ 1,753,776,000		
Average	$ 1,703,208,500	$ 1,703,208,500	
Total Rate Base - 2008		$ 1,959,666,334	D
Regulated Deemed Equity	37.5%	$ 734,874,875	E
Regulated Deemed Debt	62.5%	$ 1,224,791,459	F

Regulated Rate of Return on Deemed Equity **10.9%** G = C/E

ROE% from most recent Cost of Service application **2008COS** **8.57%**

Difference - maximum deadband 3% **2.31%**

Interest adjustment on deemed debt:

Regulated Deemed Debt - as above	$ 1,224,791,459	
Weighted Average Interest Rate	5.42%	
	$ 66,383,697	
Interest expense as per the OEB trial balance	72,242,703	
	-$ 5,859,006	
Utility Tax rate	34.50%	
Tax effect on interest expense	2,021,357	
	-$ 3,837,648	B

Please input based on your utility in the grey cells.

Calculation of ROE on a Deemed Basis - Dec 31, 2009

UTILITY NAME: Toronto Hydro-Electric System Limited
YEAR END DATE: December 31, 2009

Regulated net income, as per OEB Trial Balance		$ 51,001,018	A
Adjustment to interest expense - for deemed debt		6,826,568	B
Adjusted regulated net income		$ 57,827,586	C
Rate Base:			
Cost of Power		$ 1,649,332,663	
Operating Expenses		$ 190,700,538	
Total		$ 1,840,033,202	
Working Capital Allowance %		12.56%	
Total Working Capital Allowance		$ 231,108,170	
Fixed Assets			
Opening Balance	$ 1,753,776,000		
Closing Balance	$ 1,780,780,000		
Average	$ 1,767,278,000	$ 1,767,278,000	
Total Rate Base - 2009		$ 1,998,386,170	D
Regulated Deemed Equity	40%	$ 799,354,468	E
Regulated Deemed Debt	60%	$ 1,199,031,702	F
Regulated Rate of Return on Deemed Equity		**7.23%**	G = C/E
ROE% from most recent Cost of Service application	**2009 COS**	**8.01%**	
Difference - maximum deadband 3%		**-0.78%**	

Interest adjustment on deemed debt:

Regulated Deemed Debt - as above	$ 1,199,031,702	
Weighted Average Interest Rate	5.22%	
	$ 62,589,455	
Interest expense as per the OEB trial balance	72,932,740	
	-$ 10,343,285	
Utility Tax rate	34.00%	
Tax effect on interest expense	3,516,717	
	-$ 6,826,568	B

Please input based on your utility in the grey cells.

Calculation of ROE on a Deemed Basis - Dec 31, 2010

UTILITY NAME: Toronto Hydro-Electric System Limited
YEAR END DATE: December 31, 2010

Regulated net income, as per OEB Trial Balance		$ 64,853,153	A
Adjustment to interest expense - for deemed debt		3,167,673	B
Adjusted regulated net income		$ 68,020,826	C
Rate Base:			
Cost of Power		$ 1,788,678,600	
Operating Expenses		$ 218,487,178	
Total		$ 2,007,165,777	
Working Capital Allowance %		12.45%	
Total Working Capital Allowance		$ 249,892,139	
Fixed Assets			
Opening Balance	$ 1,780,780,000		
Closing Balance	$ 1,895,771,000		
Average	$ 1,838,275,500	$ 1,838,275,500	
Total Rate Base - 2010		$ 2,088,167,639	D
Regulated Deemed Equity	40%	$ 835,267,056	E
Regulated Deemed Debt	60%	$ 1,252,900,584	F
Regulated Rate of Return on Deemed Equity		**8.14%**	G = C/E
ROE% from most recent Cost of Service application	**2010 COS**	**9.85%**	
Difference - maximum deadband 3%		**-1.71%**	

Interest adjustment on deemed debt:

Regulated Deemed Debt - as above	$ 1,252,900,584	
Weighted Average Interest Rate	5.16%	
	$ 64,649,670	
Interest expense as per the OEB trial balance	69,449,174	
	-$ 4,799,504	
Utility Tax rate	34.00%	
Tax effect on interest expense	1,631,831	
	-$ 3,167,673	B

Please input based on your utility in the grey cells.

Calculation of ROE on a Deemed Basis - Dec 31, 2011

UTILITY NAME: Toronto Hydro-Electric System Limited
YEAR END DATE: December 31, 2011

Regulated net income, as per OEB Trial Balance		$ 94,970,945	A
Adjustment to interest expense - for deemed debt		(1,075,818)	B ↓
Adjusted regulated net income		$ 93,895,127	C
Rate Base:			
Cost of Power		$ 2,246,668,306	
Operating Expenses		$ 232,663,227	
Total		$ 2,479,331,533	
Working Capital Allowance %		15%	
Total Working Capital Allowance		$ 371,899,730	
Fixed Assets			
Opening Balance	$ 1,895,769,874		
Closing Balance	$ 2,183,544,085		
Average	$ 2,039,656,979	$ 2,039,656,979	
Total Rate Base - 2011		$ 2,411,556,709	D
Regulated Deemed Equity (40%)		$ 964,622,684	E
Regulated Deemed Debt (60%)		$ 1,446,934,026	F

Regulated Rate of Return on Deemed Equity **9.73%** G = C/E

ROE% from most recent Cost of Service application	**2011 EDR**	**9.58%**
Difference - maximum deadband 3%		**0.15%**

Interest adjustment on deemed debt:

Regulated Deemed Debt - as above	$ 1,446,934,026		
Weighted Average Interest Rate	5.18%		
	$ 74,951,183		
Interest expense as per the OEB trial balance	73,451,785		
	$ 1,499,397		
Utility Tax rate	28.25%		
Tax effect on interest expense	(423,580)		
	$ 1,075,818	B ↑	

Please input based on your utility in the grey cells.

Calculation of ROE on a Deemed Basis - Dec 31, 2012

UTILITY NAME: Toronto Hydro-Electric System Limited
YEAR END DATE: December 31, 2012

Regulated net income, as per OEB Trial Balance		$ 83,713,315	A
Adjustment to interest expense - for deemed debt		(4,536,932)	B
Adjusted regulated net income		$ 79,176,383	C
Rate Base:			
Cost of Power		$ 2,318,266,737	
Operating Expenses		$ 217,370,987	
Total		$ 2,535,637,723	
Working Capital Allowance %		15%	
Total Working Capital Allowance		$ 380,345,659	
Fixed Assets			
Opening Balance	$ 2,183,546,093		
Closing Balance	$ 2,251,924,467		
Average	$ 2,217,735,280	$ 2,217,735,280	
Total Rate Base - 2011		$ 2,598,080,938	D
Regulated Deemed Equity (40%)		$ 1,039,232,375	E
Regulated Deemed Debt (60%)		$ 1,558,848,563	F
Regulated Rate of Return on Deemed Equity		**7.62%**	G = C/E
ROE% from most recent Cost of Service application	**2011 EDR**	**9.58%**	
Difference - maximum deadband 3%		**-1.96%**	

Interest adjustment on deemed debt:

Regulated Deemed Debt - as above	$ 1,558,848,563	
Weighted Average Interest Rate	5.18%	
	$ 80,748,356	
Interest expense as per the OEB trial balance	74,575,659	
	$ 6,172,696	
Utility Tax rate	26.50%	
Tax effect on interest expense	(1,635,765)	
	$ 4,536,932	B

Please input based on your utility in the grey cells.

Calculation of ROE on a Deemed Basis - Dec 31, 2013

UTILITY NAME: Toronto Hydro-Electric System Limited

YEAR END DATE: December 31, 2013

Please input based on your utility in the grey cells.

Regulatory Net Income Calculation:

			Staff Comments
Regulated net income, as per RRR 2.1.13 reconciliation 6		$ 85,423,388 A	*Must match regulated net income amount from 2.1.13 template. Input net surplus as positive number and net deficit as a negative number.*
Future/deferred taxes		$ 49,026 B	*Must match account 6115. Input deferred tax expense as a negative number and deferred tax income as a positive number.*
Non rate regulated items		$ (116,356) C	*As an example, non rate regulated items may include income/expenses associated with generation or CDM*
Adjustment to interest expense - for deemed debt		$ 10,006,495 D (=W)	
Adjusted regulated net income		$ 75,484,223 E = A-B-C-D	

Deemed Equity Calculation:

			Staff Comments
Rate Base:			
Cost of power		$ 2,538,119,027 F	*Must match sum of accounts 4705 to 4751 inclusive. Input as positive number.*
Operating expenses		$ 246,453,930 G	*Must approximate sum of accounts 4505-4640, 4805-5695, 6105, 6205-6225, 6310-6415. Input as positive number.*
Total		$ 2,784,572,957 H = F + G	
Working capital allowance %		12.88%	*Must match percentage allowance in last approved CoS rate proceeding*
Total working capital allowance		$ 358,652,997 J	
Fixed Assets			
Opening balance - regulated fixed assets (NBV)	$ 2,251,924,468		*Please make the necessary adjustments to bring the fixed assets reported in the Audited Financial Statements to reflect the regulated rate base*
Closing balance - regulated fixed assets (NBV)	$ 2,356,027,913		*NBV = Net Book Value*
Average regulated fixed assets	$ 2,303,976,191	$ 2,303,976,191 K	
Total rate base		**$ 2,662,629,188** L = J + K	
Regulated deemed short-term debt	4%	$ 106,505,168 M	
Regulated deemed long-term debt	56%	$ 1,491,072,345 N	
Regulated deemed equity	40%	$ 1,065,051,675 P	
		$ 2,662,629,188	

Regulated Rate of Return on Deemed Equity

			Staff Comments
		7.09% Q = E / P	
ROE% from most recent cost of service application	**last approved EDR**	**9.58%** R	*Must match approved ROE from last CoS rate proceeding*
Difference - maximum deadband 3%		**-2.49%** S = Q - R	

Interest adjustment on deemed debt:

			Staff Comments
Regulated deemed short-term debt - as above	$ 106,505,168	6.67%	
Regulated deemed long-term debt - as above	$ 1,491,072,345	93.33%	
	$ 1,597,577,513	100.00%	
Short-term debt rate	2.46%	0.16%	*Interest rate on short-term debt from last approved CoS rate proceeding*
Long-term debt rate	5.37%	5.01%	*Interest rate on long-term debt from last approved CoS rate proceeding*
Average debt rate		5.18%	
Regulated deemed debt - as above	$ 1,597,577,513		
Weighted average interest rate	5.18%		
Deemed interest	$ 82,690,612 T		
Interest expense as per the OEB trial balance	$ 69,076,333 U		*Must match sum of accounts 6005-6045*
Difference	$ 13,614,279 V = T - U		
Utility tax rate	26.50%		*Distributor's Board-approved tax rate from the distributor's last rate application(IRM or CoS).*
Tax effect on interest expense	$ (3,607,784)		
Interest adjustment on deemed debt:	$ 10,006,495 W		

Template for Calculation of ROE on a Deemed Basis

UTILITY NAME: Toronto Hydro-Electric System Limited
YEAR END DATE: December 31, 2014

Please input based on your utility in the grey cells.

Regulatory Net Income Calculation:				Staff Comments
Regulated net income,		$ 96,949,987	A	*Must match regulated net income amount from 2.1.13 template. Input net surplus as positive number and net deficit as a negative number.*
Remove:				*Must match account 6115. Input deferred tax expense as a negative number and deferred tax income as a positive number.*
Future/deferred taxes		$ 0	B	
Non rate regulated items		$ 0	C	*As an example, non rate regulated items may include income/expenses associated with generation or CDM*
Adjustment to interest expense - for deemed debt		$ 15,615,697	D (=W)	
Adjusted regulated net income		$ 81,334,290	E = A-B-C-D	

Deemed Equity Calculation:				Staff Comments
Rate Base:				
Cost of power		$ 2,691,734,069	F	*Must match sum of accounts 4705 to 4751 inclusive. Input as positive number.*
Operating expenses		$ 243,232,514	G	*Must approximate sum of accounts 4505-4640, 4805-5695, 6105, 6205-6225, 6310-6415. Input as positive number.*
Total		$ 2,934,966,583	H = F + G	
Working capital allowance %		12.88%		*Must match percentage allowance in last approved CoS rate proceeding*
Total working capital allowance		$ 378,023,696	J	
Fixed Assets				
Opening balance - regulated fixed assets (NBV)	$ 2,356,003,597			*Please make the necessary adjustments to bring the fixed assets reported in the Audited Financial Statements to reflect the regulated rate base.*
Closing balance - regulated fixed assets (NBV)	$ 2,454,781,840			*NBV = Net Book Value*
Average regulated fixed assets	$ 2,405,392,718	$ 2,405,392,718	K	
Total rate base		**$ 2,783,416,414**	L = J + K	
Regulated deemed short-term debt	4%	$ 111,336,657	M	
Regulated deemed long-term debt	56%	$ 1,558,713,192	N	
Regulated deemed equity	40%	$ 1,113,366,566	P	
		$ 2,783,416,414		

Regulated Rate of Return on Deemed Equity				Staff Comments
		7.31%	Q = E / P	
ROE% from most recent cost of service application	**last approved EDR**	**9.58%**	R	*Must match approved ROE from last CoS rate proceeding*
Difference - maximum deadband 3%		**-2.27%**	S = Q - R	

Interest adjustment on deemed debt:				Staff Comments
Regulated deemed short-term debt - as above	$ 111,336,657	6.67%		
Regulated deemed long-term debt - as above	$ 1,558,713,192	93.33%		
	$ 1,670,049,849	100.00%		
Short-term debt rate	2.46%	0.16%		*Interest rate on short-term debt from last approved CoS rate proceeding*
Long-term debt rate	5.37%	5.01%		*Interest rate on long-term debt from last approved CoS rate proceeding*
Average debt rate		5.18%		
Regulated deemed debt - as above	$ 1,670,049,849			
Weighted average interest rate	5.18%			
Deemed interest	$ 86,441,780		T	
Interest expense as per the OEB trial balance	$ 65,195,934		U	*Must match sum of accounts 6005-6045*
Difference	$ 21,245,846		V = T - U	
Utility tax rate	26.50%			*Distributor's Board-approved tax rate from the distributor's last rate application(IRM or CoS).*
Tax effect on interest expense	$ (5,630,149)			
Interest adjustment on deemed debt:	$ 15,615,697		W	

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO SCHOOL ENERGY COALITION

UNDERTAKING NO. J2.25:

Reference(s):

With reference to IR 9-Staff-86 and 89, to advise whether ratepayers are being asked to cover two sets of accounting changes, the first the change from CGAAP to U.S. GAAP, and then from U.S. GAAP to IFRS; to advise whether there is anywhere in the evidence of those changes to ensure that there is no overlap or overpayment to ensure that ratepayers are ending up in the exact same place if THESL had gone straight from CGAAP to IFRS.

RESPONSE:

For the transitional adjustment related to the OPEB recorded in account 1508 "Impact For USGAAP Deferral Account", the balance of $36.0 million as at December 31, 2014 represents the cumulative impact of the conversion from CGAAP to USGAAP and from USGAAP to IFRS. However, as indicated in the response to Interrogatory 9-OEBStaff-86 part (b), Toronto Hydro has decided not to apply for disposition of the actuarial loss of $36.0 million in the current application.

Transitional adjustments related to PP&E are recorded in account 1575 "IFRS USGAAP Transitional PP&E Amounts" and described in Exhibit 9, Tab 2, Schedule 4. These amounts represent only the transitional PP&E impacts of conversion from USGAAP to IFRS. There were no equivalent transitional impacts from CGAAP to USGAAP.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO VULNERABLE ENERGY CONSUMERS COALITION

UNDERTAKING NO. J2.26:

Reference(s):

To provide in Excel format the two charts with respect to the ICM reconciling approved and actuals

RESPONSE:

Please refer to Appendices A and B for Excel format versions of the ISA and CAPEX reconciliation tables filed November 5, 2014 in response to interrogatory 2B-OEBStaff-39.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO CONSUMERS COUNCIL OF CANADA

UNDERTAKING NO. J2.27:

Reference(s):

To provide a summary of information in the evidence regarding the specific circumstances around storms.

RESPONSE:

Referring to Exhibit 4A, Tab 2, Schedule 3, page 16-19, Toronto Hydro's Significant System Disturbance Response segment funds the necessary maintenance expenditures required to return the distribution system to normal operating conditions following major storm events. Toronto Hydro forecasts its Significant System Disturbance Response expenditures for major storm events based on a three-year historical average, excluding all expenditures associated with one time extreme weather events that cause tremendous and widespread damage such as the 2013 Ice Storm.

With respect to any storm-related expenditures over and above the amounts budgeted under the Significant System Disturbance Response segment, Toronto Hydro intends to evaluate its options in light of the specific circumstances surrounding each event, including potentially seeking Z-Factor relief as set out in Exhibit 1B, Tab 2, Schedule 3.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO VULNERABLE ENERGY CONSUMERS COALITION

UNDERTAKING NO. J2.28:

Reference(s):

To respond to VECC Technical Conference questions posed in Exhibit No. TCK2.2.

RESPONSE:

The responses are provided as Schedules J2.28-VECC-70 to J2.28-VECC-82.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO VULNERABLE ENERGY CONSUMERS COALITION

UNDERTAKING NO. J2.28-VECC-70:

Reference(s): **OEB Staff 60**

Exhibit 3, Tab 1, Schedule 1, page 13

a) The difference between the two load forecast numbers reported in OEB Staff 60 does not match the CDM forecast set out in Table 4 of the updated application. For example, for 2019 the difference is 2,543.5 vs. a Table 4 value of 2,456.1. Please reconcile the differences for each year 2014-2019.

RESPONSE:

a) The difference between the two load forecast numbers is due to loss factor adjustments. For example, the 2,543.5 is adjusted for losses, while the 2,456.1 is not.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO VULNERABLE ENERGY CONSUMERS COALITION

UNDERTAKING NO. J2.28-VECC-71:

Reference(s): **SIA 30**

Exhibit 3

a) Please provide an updated version of Table 1 (Exhibit 3/Tab 2/Schedule 1) and Appendix 2-H incorporating any revisions or corrections noted in the interrogatory responses.

RESPONSE:

a) The updates to both Exhibit 3, Tab 2, Schedule 1, Table 1 and Exhibit 3, Tab 2, Schedule 2, Appendix 2-H were filed on November 14, 2014.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO VULNERABLE ENERGY CONSUMERS COALITION

UNDERTAKING NO. J2.28-VECC-72:

Reference(s): **VECC – 27 a)**
Exhibit 3

a) The response provided does not address the original question, I.e., how was the average use data "normalized" to the current 10 year historical average of HDD 10 and CDD 18? Please describe how this was done.

RESPONSE:

a) The CSMUR average use was normalized based on regression modelling of historical CSMUR estimated loads against heating and cooling degree days. The estimated relationship was used to normalize the CSMUR average load to the current HDD and CDD 10-year average.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO VULNERABLE ENERGY CONSUMERS COALITION

UNDERTAKING NO. J2.28-VECC-73:

Reference(s): **VECC – 28 d)**
Exhibit 3

a) Please confirm that the "verified" CDM demand savings reported by the OPA are demand savings at the time of the system peak. If not confirmed, please indicate what THESL understands the OPA's reported CDM MW savings to represent and the basis for this understanding.

b) Please explain more fully how why the ratio of reported system peak demand to total energy CDM savings is the appropriate factor to use in determining the billing demand associated with the CDM energy savings for demand billed customer classes.

RESPONSE:

a) Confirmed. The verified demand savings are at system peak.

b) Toronto Hydro believes it is a reasonable assumption that the ratio as determined (using the savings at system peak relative to energy) could be applied for the purposes of forecasting CDM demand savings by class.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO VULNERABLE ENERGY CONSUMERS COALITION

UNDERTAKING NO. J2.28-VECC-74:

Reference(s): **VECC – 32 c)**
Exhibit 3

a) Please provide a revised version of the table which includes the kWh values for all classes for each year 2015-2019.
b) What program years' impacts are reflected in the net incremental CDM estimates provided (e.g., is it all program years from 2006, just those from 2014 or those for some other point in time)?
c) Please provide a table which sets out the gross CDM values by class and year equivalent to those provided in the response.

RESPONSE:

a) The revised version of the table (see Table 1) below includes the proposed "net" CDM MWh values for all classes from 2015 to 2019.

b) The proposed "net" CDM savings from 2015 to 2019 include impacts from the 2015 CDM programs and onwards.

c) The table below (see Table s) shows the "gross" CDM MWh values by class, equivalent to part (a).

RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION TECHNICAL CONFERENCE QUESTIONS

1 **Table 1:**

Customer Class	2015		2016		2017		2018		2019	
	MWh	MW	MWh	MW	MWh	MW	MWh	MW	MWh	MW
Residential	7,114		25,586		48,299		74,624		98,349	
CSMUR	144		522		987		1,528		2,016	
GS <50 kW	15,220		55,011		104,079		161,060		212,478	
GS 50-999 kW	34,830	73.1	125,815	238.2	237,977	417.2	368,197	588.4	485,685	736.2
GS 1000-4999 kW	9,552	19.8	34,450	64.4	65,117	112.8	100,699	159.1	132,790	199.1
Large Use	6,718	19.1	23,799	62.1	44,616	108.9	68,597	153.5	90,126	192.1
Total	73,579	112.0	265,183	364.7	501,075	638.9	774,705	901.0	1,021,445	1,127.4

2 **Table 2:**

Customer Class	2015		2016		2017		2018		2019	
	MWh	MW	MWh	MW	MWh	MW	MWh	MW	MWh	MW
Residential	9,619		35,403		66,488		100,104		130,342	
CSMUR	196		724		1,361		2,051		2,673	
GS <50 kW	20,644		76,270		143,467		216,238		281,759	
GS 50-999 kW	47,225	99.5	174,397	317.7	327,985	565.8	494,288	827.9	644,004	1,062.1
GS 1000-4999 kW	12,938	26.9	47,723	85.9	89,708	153.0	135,148	223.9	176,044	287.2
Large Use	8,996	26.0	32,729	82.9	61,162	147.6	91,776	216.0	119,230	277.1
Total	99,619	152.4	367,246	486.5	690,170	866.5	1,039,606	1,267.8	1,354,052	1,626.5

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO VULNERABLE ENERGY CONSUMERS COALITION

UNDERTAKING NO. J2.28-VECC-75:

Reference(s): **Exhibit 7**
VECC – 52 c)

a) Please provide the derivation of the 0.004 weighting factor used for CSMUR Services per the CAM, Sheet I5.2 and, in doing so, demonstrate the derivation is consistent with the Board's direction from EB-2010-0142.

RESPONSE:

a) The number of buildings of 215 is divided by the total number of individual suite units of 56,966. Since the service drops of all rate rates classes (except SL and USL) are weighted the same as the residential class (e.g., their services factor is 1.0), there are no other adjustments.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO VULNERABLE ENERGY CONSUMERS COALITION

UNDERTAKING NO. J2.28-VECC-76:

Reference(s): **Exhibit 7**
VECC – 53 a)

a) The response suggests that THESL's accounting system separately records and tracks the distribution assets in the USOA accounts noted that are used solely by Streetlighting or USL. Please confirm that this is the case.
b) If not, please clarify the response provided.

RESPONSE:

a) Toronto Hydro's accounting system for the Streetlighting assets does not have USoA account details built in.

b) Toronto Hydro used its internal accounting information on the assets to assign them to the most appropriate USoA accounts.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO VULNERABLE ENERGY CONSUMERS COALITION

UNDERTAKING NO. J2.28-VECC-77:

Reference(s): **Exhibit 7**
VECC – 53 b)

Preamble: It is not clear from the response provided for which of the accounts listed in the original question were expenses actually directly allocated to Streetlighting or USL and, if so, how it was done.

a) Please indicate for which of the expense accounts listed in the original question were expenses "rolled into accounts 5085, 5096 or 5145" respectively and subsequently directly allocated to Streetlighting and USL.
b) In each case, where costs from one of the listed expenses accounts were reassigned to 5085, 5096 or 5145 and subsequently directly allocated to Streetlighting and USL, please indicate how the quantum of costs that was reassigned to these accounts was identified.
c) Please indicate the basis for the 95%/5% split that was used to allocate the costs in each case as between Streetligting and USL

RESPONSE:

a) The original response indicated expenses for each of the accounts listed in the original question were "rolled into" accounts 5085, 5096 and 5145. For greater clarity, these were the only accounts where expenses were recorded for the Streetlighting assets. All other accounts are allocated on the same basis and so no specific detailed were provided for these.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO VULNERABLE ENERGY CONSUMERS COALITION

b) Please see part a) of this reply.

c) The split used to directly allocate the Streetlighting assets was based on Toronto's estimate of the percentages of the assets used to serve each of the classes.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO VULNERABLE ENERGY CONSUMERS COALITION

UNDERTAKING NO. J2.28-VECC-78:

Reference(s): **Exhibit 7**
VECC – 53 d)

Preamble: The response indicates that the directly assigned amount in account 5085 should be $180,242.

a) Please clarify whether it is the total amount in account 5085 (initially $2,278,562) that was revised to $180,242 or the amount directly assigned to Streetlighting (initially $2,164,634) that was revised to $180,242.
b) Please explain why the R/C ratio for Streetlighting fell from 105.5% to 92.2% when the amount of expenses directly allocated to the class was reduced as a result of the correction.

RESPONSE:

a) It is the latter. The amount of -$2,278,562 (a negative amount) that was revised to +$180,242 was the amount that was initially directly allocated to the Streetlighting class.

b) The initial direct assignment was a negative value. By correcting the value, costs allocated to the Streetlighting class are higher, and therefore the revenue to cost ratio is lower.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO VULNERABLE ENERGY CONSUMERS COALITION

UNDERTAKING NO. J2.28-VECC-79:

Reference(s): **Exhibit 7**
VECC – 53

Preamble: The response identifies a number of corrections to the Cost Allocation Model (CAM) as filed in September 2014.

a) Please provide an updated CAM reflecting the various corrections that THESL has noted as being required, either in response to this interrogatory or elsewhere in its IR responses. In conjunction with the updated model please provide a summary listing of the corrections incorporated.
b) Please provide an updated version of Appendix 2-P, parts A-D.

RESPONSE:

An updated CAM (in electronic format) and Appendix 2-P are attached as Appendices A and B, respectively, to this reply.

OEB Appendix 2-P
Cost Allocation

Please complete the following four tables.

A) Allocated Costs

Classes	Costs Allocated from Previous Study	%	Costs Allocated in Test Year Study (Column 7A)	%
Residential	$ 256,839,427	46.86%	$ 299,298,202	42.32%
GS < 50 kW	$ 74,280,097	13.55%	$ 102,571,632	14.50%
GS 50-999 kW	$ 136,457,707	24.90%	$ 164,890,991	23.31%
GS 1000-4999 kW	$ 38,493,073	7.02%	$ 58,232,948	8.23%
Large User	$ 20,035,803	3.66%	$ 32,133,442	4.54%
Street Lighting	$ 17,331,487	3.16%	$ 25,838,237	3.65%
Unmetered Scattered Load (USL)	$ 4,627,832	0.84%	$ 4,426,739	0.63%
Competitive Sector Multi-Unit Residential (New Rate Class in 2013)		0.00%	$ 19,891,011	2.81%
		0.00%		0.00%
Embedded distributor class		0.00%		0.00%
Total	$ 548,065,426	100.00%	$ 707,283,202	100.00%

Notes

1 Customer Classification - If proposed rate classes differ from those in place in the previous Cost Allocation study, modify the rate classes to match the current application as closely as possible.

2 Host Distributors - Provide information on embedded distributor(s) as a separate class, if applicable. If embedded distributor(s) are billed as customers in a General Service class, include the allocated cost and revenue of the embedded distributor(s) in the applicable class. Also complete Appendix 2-Q.

3 Class Revenue Requirements - If using the Board-issued model, in column 7A enter the results from Worksheet O-1, Revenue Requirement (row 40 in the 2013 model). This excludes costs in deferral and variance accounts. Note to Embedded Distributor(s), it also does not include Account 4750 - Low Voltage (LV) Costs.

B) Calculated Class Revenues

Classes (same as previous table)	Column 7B	Column 7C	Column 7D	Column 7E
	Load Forecast (LF) X current approved rates	L.F. X current approved rates X (1 + d)	LF X proposed rates	Miscellaneous Revenue
Residential	$ 214,465,673	$ 261,590,715	$ 264,480,298	$ 18,999,842
GS < 50 kW	$ 69,430,402	$ 84,686,506	$ 86,224,669	$ 7,926,793
GS 50-999 kW	$ 158,177,191	$ 188,618,199	$ 188,618,199	$ 6,336,460
GS 1000-4999 kW	$ 52,894,930	$ 58,138,327	$ 58,138,327	$ 882,921
Large User	$ 27,857,584	$ 30,150,985	$ 30,406,573	$ 327,737
Street Lighting	$ 12,284,580	$ 14,983,900	$ 12,284,599	$ 8,844,833
Unmetered Scattered Load (USL)	$ 2,673,863	$ 3,261,398	$ 3,353,795	$ 567,146
Competitive Sector Multi-Unit Residential (New Rate Class in 2013)	$ 17,001,339	$ 20,737,083	$ 18,660,652	$ 1,230,359
Embedded distributor class				
Total	$ 554,785,562	$ 662,167,112	$ 662,167,112	$ 45,116,090

Notes:

1 Columns 7B to 7D - LF means Load Forecast of Annual Billing Quantities (i.e. customers or connections X 12, (kWh or kW, as applicable). Revenue Quantities should be net of Transfomrer Ownership Allowance. Exclude revenue from rate adders and rate riders.

2 Columns 7C and 7D - Column total in each column should equal the Base Revenue Requirement

3 Columns 7C - The Board cost allocation model calculates "1+d" in worksheet O-1, cell C21. "d" is defined as Revenue Deficiency/ Revenue at Current Rates.

4 Columns 7E - If using the Board-issued Cost Allocation model, enter Miscellaneous Revenue as it appears in Worksheet O-1, row 19.

C) Rebalancing Revenue-to-Cost (R/C) Ratios

Class	Previously Approved Ratios Most Recent Year: 2011	Status Quo Ratios (7C + 7E) / (7A)	Proposed Ratios (7D + 7E) / (7A)	Policy Range
	%	%	%	%
Residential	89%	94	95	85 - 115
GS < 50 kW	97%	90	92	80 - 120
GS 50-999 kW	118%	118	118	80 - 120
GS 1000-4999 kW	124%	101	101	80 - 120
Large User	116%	95	96	85 - 115
Street Lighting	71%	92	82	70 - 120
Unmetered Scattered Load (USL)	82%	86	89	80 - 120
Competitive Sector Multi-Unit Residential (New Rate Class in 2013)		110	100	85-115
Embedded distributor class				

Notes

1 Previously Approved Revenue-to-Cost Ratios - For most applicants, Most Recent Year would be the third year of the IRM 3 period, e.g. if the applicant rebased in 2009 with further adjustments over 2 years, the Most recent year is 2011. For applicants whose most recent rebasing year is 2006, the applicant should enter the ratios from their Informational Filing.

2 Status Quo Ratios - The Board's updated Cost Allocation Model yields the Status Quo Ratios in Worksheet O-1. Status Quo means "Before

D) Proposed Revenue-to-Cost Ratios

Class	Proposed Revenue-to-Cost Ratios			Policy Range
	0	1	2	
	%	%	%	%
Residential	95			85 - 115
GS < 50 kW	92			80 - 120
GS 50-999 kW	118			80 - 120
GS 1000-4999 kW	101			80 - 120
Large User	96			85 - 115
Street Lighting	82			70 - 120
Sentinel Lighting				80 - 120
Unmetered Scattered Load (USL)	89			80 - 120
Competitive Sector Multi-Unit Residential (New Rate Class in 2013)	100			85-115
				0
Embedded distributor class				

Note

1 The applicant should complete Table D if it is applying for approval of a revenue to cost ratio in 2014 that is outside the Board's policy range for any customer class. Table (d) will show the information that the distributor would likely enter in the IRM model) in 2014. In 2015 Table (d), enter the planned ratios for the classes that will be 'Change' and 'No Change' in 2014 (in the current Revenue Cost Ratio Adjustment Workform, Worksheet C1.1 'Decision – Cost Revenue Adjustment', column d), and enter TBD for class(es) that will be entered as 'Rebalance'.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO VULNERABLE ENERGY CONSUMERS COALITION

UNDERTAKING NO. J2.28-VECC-80:

Reference(s): **Exhibit 7**
VECC – 58
VECC – 53 d)

a) Please confirm that THESL's proposal with respect to Streetlighting will produce a Revenue to Cost ratio for Streetlighting that is further away from 100% than the 2015 status quo revenue to cost ratio for the class.

RESPONSE:

a) Yes, that is correct.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO VULNERABLE ENERGY CONSUMERS COALITION

UNDERTAKING NO. J2.28-VECC-81:

Reference(s): **Exhibit 8**

VECC – 61

a) What is THESL's best estimate as to when the updated evidence with respect to historic line losses will be completed?

RESPONSE:

Toronto Hydro cannot currently provide an estimate as to when it expects to file this evidence.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO VULNERABLE ENERGY CONSUMERS COALITION

UNDERTAKING NO. J2.28-VECC-82:

Reference(s): **Exhibit 9, Tab 2, Schedule 4, page 4, lines 11-13**
VECC – 67 a) and b)

a) With respect to VECC 67 a), please provide the historical load factors used (per page 4) to derive the forecast MW savings for the demand billed classes and explain how they were determined.

b) With respect to VECC 67 b), what were the load factors used to convert the actual MWh of CDM savings for demand billed classes to billing MW and how were they established?

RESPONSE:

a) The load factors from the 2011 Board-approved Load Forecast (EB-2010-0142) were used for the MW determination. The factors are coefficients calculated based on the historic billing determinants from the billing system. Please see the table below for more details.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO VULNERABLE ENERGY CONSUMERS COALITION

	GS 50-1000 kW	GS 1000-4999 kW	Large Use
	Load Factors	Load Factors	Load Factors
Jan	61.11%	68.39%	72.78%
Feb	66.11%	76.43%	81.23%
Mar	58.61%	67.89%	71.24%
Apr	58.99%	67.37%	71.40%
May	55.47%	64.94%	69.31%
Jun	55.34%	65.88%	71.22%
Jul	56.18%	65.57%	72.31%
Aug	56.23%	64.09%	70.00%
Sep	57.15%	67.79%	72.22%
Oct	55.30%	66.77%	68.19%
Nov	59.95%	70.95%	74.37%
Dec	58.28%	67.13%	70.02%

b) The actual CDM MW savings are taken directly from the 2013 OPA draft verified report. There was no conversion from the energy values.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO CANADIAN UNION OF PUBLIC EMPLOYEES LOCAL ONE

UNDERTAKING NO. J2.29:

Reference(s):

To respond to CUPE Technical Conference questions posed in Exhibit No. TCK2.3.

RESPONSE:

The responses are provided as Schedules J2.29-CUPE-6 to J2.29-CUPE-19.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO CANADIAN UNION OF PUBLIC EMPLOYEES LOCAL ONE

UNDERTAKING NO. J2.29-CUPE-6:

Reference(s): CUPE Interrogatory 2 a)

With reference to Exhibit2B, Section C, C3.4 pages 22-25, "Construction Efficiency: Internal vs. Contractor Cost"

a) Please provide a numerical example of the 'Comparison Methodology' outlined in C3.4.1.1 pages 23-24

1) The table provided has not given any clarity regarding the comparison methodology employed by THESL. For instance, it is not clear what specific cost of capital assumptions are being employed and how this would compare to the D&C contractor's actual costs. Please provide a non- redacted numerical example with nominal numbers along with the detailed calculation methodology for each entry so the comparison methodology can be objectively examined.
2) How long has this arrangement with 6 external contractors been in place?
3) Under the contracts, as structured, what freedom do the contractors enjoy to change their prices annually?
4) How does THESL prevent collusion between the contractors in terms of price fixing?

RESPONSE:

1) Toronto Hydro has filed a non-redacted numerical example in confidence on November 5, 2014, and has objected to CUPE's request to access this information for the reasons set out in the utility's November 11, 2014 letter to the OEB.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO CANADIAN UNION OF PUBLIC EMPLOYEES LOCAL ONE

As to the specific question regarding the cost of capital assumptions, Toronto Hydro reviewed the property, plant, and equipment ("PPE") directly employed in the construction program (inclusive of vehicles and computer hardware), segregating the net book values related to these assets. The ROE embedded in Toronto Hydro's current base rates was then applied to derive an expected return on PPE employed in construction work. This value was then divided by the value of the internal capital program for an approximated cost of capital.

2) The existing contractual arrangements have been in place since January 2012.

3) During the RFP process, contractors are asked to provide unit prices for the full term of the contract. Price adjustments are not allowed without a signed amendment to the contract.

4) Contractors are selected through competitive procurements. All competitive procurements, including the unit price RFP, are bound by standard Toronto Hydro terms and conditions ("T&Cs"). Contained in those T&Cs are explicit requirements that respondents prepare their responses without any "connection, knowledge, comparison of information, or arrangement with any other respondent". Failure to abide by those rules can result in disqualification.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO CANADIAN UNION OF PUBLIC EMPLOYEES LOCAL ONE

UNDERTAKING NO. J2.29-CUPE-7:

Reference(s): CUPE Interrogatory 2 b)

b) is this comparison methodology used to determine whether the work will be awarded to a contractor or done with internal resources? If not, what is the criteria and basis of awarding a contract?

Response from THESL is: No, the comparison methodology is not used to determine whether the work will be awarded to a contractor or performed with internal resources. The comparison is done on the basis of already completed projects, and as such cannot be used as a tool. Toronto Hydro awards contracts to design and construction contractors through the Request for Proposal process and the associated criteria.

1) Please provide the relevant RFPs.
2) Please also provide the associated selection criteria.

RESPONSE:

1) The RFPs have been filed in confidence as Appendix A to this response.

2) Proposals are evaluated according to the following criteria, the weighting of which have been filed in confidence:
   - Cost – [redacted]%;
   - Operational Sustainment (staffing, fleet, warehousing capabilities etc) – [redacted]%;
   - Environment, Health and Safety – [redacted]%;

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO CANADIAN UNION OF PUBLIC EMPLOYEES LOCAL ONE

- Experience – [redacted]%

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO CANADIAN UNION OF PUBLIC EMPLOYEES LOCAL ONE

UNDERTAKING NO. J2.29-CUPE-8:

Reference(s): CUPE Interrogatory 2 c)

c) what is the threshold for "construction efficiency" where there is no real advantage to using D&C contractors rather than internal resources?

1) This question is not on the comparison methodology per se, but on the cost threshold where it is cheaper to use internal resources or there is no financial advantage of using external resources. Please answer the question asked: What is the threshold for construction efficiency where there is no real advantage to using D&C contractors rather than internal resources? Is this 5% or 10% or 15%?

RESPONSE:

1) Please refer to Toronto Hydro's response to 2B-CUPE-2 part (c), where Toronto Hydro has stated that there is no construction efficiency threshold that applies to comparisons between internally and externally executed construction projects. The utilization of design and construction contractor services enables the utility to complete the requisite volume of capital work in a safe and efficient manner, while providing the resourcing scalability and flexibility to account for changing capital funding levels.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO CANADIAN UNION OF PUBLIC EMPLOYEES LOCAL ONE

UNDERTAKING NO. J2.29-CUPE-9:

Reference(s): CUPE Interrogatory 2 e)

e) further to CUPE Interrogatory 2d), with the expectation of increasing prices, would it not be more economically prudent for Toronto Hydro to limit new D&C contracts for 2015-2016 rather than 2015-2018? As external D&C resources are facing high demand in the GTA due to construction related to the Pan-Am and mass transit investment it would seem that demand exceeding supply would inflate prices paid for these services in the 2015 and 2016 period.

In its response to this IR, THESL states: "the high demand for qualified services currently experienced in Toronto's electrical construction market is expected to remain a significant factor throughout the duration of the Request for Proposal term."

1) What annual price increases will be built into these 4 year contracts?
2) First principles of economic theory would dictate that, with "the high demand for qualified services" remaining a significant factor through the contract period, there will be rising costs for the contractors over time. How is this to be reflected in the contracts to be signed?
3) With the continuing expectation that the cost of capital will rise through this period, how will this be reflected in the contract terms?
4) What will THESL do as the cost to get the work done externally exceeds the costs of having the work done internally?

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO CANADIAN UNION OF PUBLIC EMPLOYEES LOCAL ONE

RESPONSE:

1) As the contracts for the 2015-2018 period have not been finalized, Toronto Hydro is not in a position to provide the requested information at this time. However, Toronto Hydro undertakes to file this information on a confidential basis following the execution of contacts in early 2015.

2) Please see the response to 1) above.

3) Toronto Hydro cannot meaningfully comment on the speculative observation that "the cost of capital will rise through this period".

4) Toronto Hydro also declines to comment on this hypothetical situation. If it were to occur, Toronto Hydro would assess the situation and evaluate the available options.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO CANADIAN UNION OF PUBLIC EMPLOYEES LOCAL ONE

UNDERTAKING NO. J2.29-CUPE-10:

Reference(s): CUPE Interrogatory 2 f)

f) does this "Construction Efficiency" factor include the rework and correction by Toronto Hydro staff of projects done by D&C contractors? If yes, what is the impact of this additional corrective work on the "Construction Efficiency" factor? If no, why not?

Response from THESL: All design and construction contractors are required to comply with Toronto Hydro's certified Distribution Construction Standards and the Electrical Distribution Safety Regulation. In addition, all design and construction contractor projects are covered by a two-year warranty period; any rework required would be at the cost of the contractor (i.e., no additional costs to the utility).

1) How much re-work has had to be done annually over the past five years?
2) How have the project completion delays resulting from rework impacted upon system reliability, THESL costs and customer satisfaction?
3) How are contract compliance and job quality verified?
4) Are audits done on these elements in all externally contracted D&C work? If so, what actions are taken regarding non-compliance?
5) If no independent audits are done, then how can this be objectively verified?
6) How are contract "extras" dealt with?
7) How many D&C contracts were amended after they were awarded over the past five years? Please provide both the annual number and the total impact on contract costs in $ and % terms.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO CANADIAN UNION OF PUBLIC EMPLOYEES LOCAL ONE

RESPONSE:

1) As described in Toronto Hydro's response to Interrogatory 2B-CUPE-2 part (f), all design and construction contractor projects are covered by a two-year warranty period; any rework required would be at the cost of the contractor. Given this arrangement, Toronto Hydro does not possess the historical records required to provide the requested information.

2) Toronto Hydro is unable to answer this question, as it does not track the relationship between contractor project delays (if any) and reliability or customer satisfaction.

3) Please see Toronto Hydro's response to Interrogatory 4A-CCC-42.

4) Audits are performed on all externally contracted Design and Construction work. Toronto Hydro is notified with respect to any instances of non-compliance, and appropriate actions are taken in accordance to the terms specified in the contracts.

5) Please see response to question 3.

6) Toronto Hydro is not aware of any provisions for "extras" associated with the contracts in question.

7) No contract amendments have taken place since the current Design and Construction contracts were executed in 2012.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO CANADIAN UNION OF PUBLIC EMPLOYEES LOCAL ONE

UNDERTAKING NO. J2.29-CUPE-11:

Reference(s): CUPE Interrogatory 2 g)

g) Provide the total annual costs for D&C contractors paid by Toronto Hydro for 2011 to 2019 split between capitalized costs and expensed costs. Include separately the annual contract administration costs which Toronto Hydro incurs and the total annual amount of Toronto Hydro incurred costs for rework and correction by Toronto Hydro staff of projects done by D&C contractors.

1) Please provide the requested information for 2016-2019 as annual capex has been provided for these years in evidence. [ref. Exhibit 1A Tab 2 Schedule 1 page 15]
2) What costs are covered in "Operating and Overhead"? How were they determined? That is, are they tracked separately or is this a ballpark estimate? [the Operating & Overhead values are ~1.5% of the capex]
3) Where are audit costs included in this table? Please separate them out or provide them if not included.
4) Do these costs capture all costs incurred annually by Toronto Hydro due to the use of D&C contractors? If not explain why not and please provide.

RESPONSE:

1) As stated in the response to Interrogatory 2B-CUPE-2, the 2016-2019 annual costs for the D&C contractors will depend on a number of factors, including the nature and volume of approved work. Accordingly, Toronto Hydro is not in a position to provide the requested information.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO CANADIAN UNION OF PUBLIC EMPLOYEES LOCAL ONE

2) As stated in the table provided in the response to Interrogatory 2B-CUPE-2 (g) the operating and overhead costs represent the actual costs for the years 2011-2013, forecasted year-end 2014 costs, and planned 2015 Operating and Overhead costs.

3) Consistent with the treatment of audit costs for internally executed projects, the audit costs for the work executed by design and construction contractors are included in the CAPEX component of the table provided in response to Interrogatory 2B-CUPE-2 (g). Please see the table below for the D&C contractor audit costs:

$M	2011	2012	2013	2014
Audit Costs	$3.3	$2.0	$4.4	$5.6

4) Please refer to Toronto Hydro response to Interrogatory 2B-CUPE-2 (g).

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO CANADIAN UNION OF PUBLIC EMPLOYEES LOCAL ONE

UNDERTAKING NO. J2.29-CUPE-12:

Reference(s): CUPE Interrogatory 2 i)

i) For 2011 to 2019, please provide the annual percentage of these external contractor projects which are overspent [ie exceed the original contract cost] along with the total annual overspend in dollar and percentage terms of total spend on contracted projects.

1) Please confirm then that there is no contingency for overspending and that for 2011 to 2013 all contracted costs did NOT exceed original signed contract levels. Please provide audit confirmation of such.

RESPONSE:

1) Toronto Hydro confirms that there is no contingency for overspending with respect to Design and Construction contractors and that for 2011 to 2013 all contracted costs did not exceed original signed contract levels. To the extent that further information is sought in this question, Toronto Hydro declines to produce it on the basis of relevance.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO CANADIAN UNION OF PUBLIC EMPLOYEES LOCAL ONE

UNDERTAKING NO. J2.29-CUPE-13:

Reference(s): CUPE Interrogatory 2 j)

j) For 2011 to 2019, please provide the annual percentage of these external contractor projects which have to be redone [whether by the same or another contractor or internal staff] along with the total resulting annual spend in dollar and percentage terms of total spend on contracted projects.

1) How much rework has had to be done on work done by external contractors during the ice storm?
2) Have the external contractors had to absorb the entire costs of the rework? If not, what is the expected total incremental cost for 2014 and 2015 in $ terms and % of contract costs?

RESPONSE:

1) Toronto Hydro is unable to answer this question, as it has not tracked the storm restoration rework in a manner that would allow it to provide the requested information. Moreover, as discussed in Toronto Hydro's response to Interrogatory 2B-CUPE-2 part (g), the costs of any rework are the responsibility of the contractor.

2) As discussed in Toronto Hydro's response to Interrogatory 2B-CUPE-2 part (g), there are no additional costs to the utility for any rework, if required.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO CANADIAN UNION OF PUBLIC EMPLOYEES LOCAL ONE

UNDERTAKING NO. J2.29-CUPE-14:

Reference(s): CUPE Interrogatory 3 a)

With reference to Exhibit 28, Section C, C3.4.1

a) Please provide for 2011 to 2019 the annual OM&A cost for all external contract services, such as consultants or vegetation management services, and including D&C contractors. Also provide the percentage this represents of total annual OM&A expenditures.

THESL reply: "For the 2016-2019 period, Toronto Hydro is not in a position to provide a specific forecast at this time, but expects results consistent with 2015 Test Year, subject to changes driven by the nature and volume of required work."

1) The external contract costs have increased by 50% between 2011 & 2015. Consistent with 2015 costs, will 2019 external contractor costs be 50% higher?
2) Please breakout the annual external contract services costs by category e.g., consultants, vegetation management etc.

RESPONSE:

1) The 50% increase referenced in the question refers to the aggregate cost of work performed by external contractors, and is predominantly driven by the increase in the *volume of work* performed by external contractors over the recent years.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO CANADIAN UNION OF PUBLIC EMPLOYEES LOCAL ONE

2) Please see the table below:

$M	2011 Actual	2012 Actual	2013 Actual	2014 Bridge	2015 Test
Design & Construction Contractors	5.2	5.0	9.2	10.0	10.3
Vegetation Management	2.4	2.5	2.7	2.5	4.2
Temporary Staff	6.7	6.0	6.5	5.2	6.9
Maintenance Contracts	13.6	13.8	16.1	18.6	21.5
Administrative Fees & Purchased Services	23.1	21.2	22.5	22.5	25.3
Contracted Services	8.1	8.8	15.8	14.5	20.8
LEAP	0.4	0.1	0.2	0.2	0.2
Total	**59.5**	**57.5**	**72.9**	**73.5**	**89.2**

Toronto Hydro notes that the table referenced in the Undertaking request (Table 1 in 2B-CUPE-3) required corrections. The corrected table is provided below, and has been filed as an update to the interrogatory response.

Table 1: External OM&A Contractor Costs

Category	2011Actual	2012Actual	2013Actual	2014Bridge	2015Test
External OM&A Costs	$59.4M	$57.5M	$72.9M	$73.5M	$89.2M
% Total OM&A	25%	27%	30%	30%	33%

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO CANADIAN UNION OF PUBLIC EMPLOYEES LOCAL ONE

UNDERTAKING NO. J2.29-CUPE-15:

Reference(s): CUPE Interrogatory 3 b)

b) Please provide for 2011 to 2019 the annual capital expenditures cost for all external contract services including consultants and D&C contractors as well as the percentage this represents of total annual capital expenditures.

THESL reply: "For the 2016-2019 period, Toronto Hydro is not in a position to provide a specific forecast at this time, but expects results consistent with the 2015 Test Year. The actual results, however, will depend on a number of factors, including the nature and volume of approved work."

1) Please breakout the annual external contract services costs by category e.g., consultants, D&C contractors etc.
2) Please provide the requested information for 2016-2019 as annual capex has been provided for these years in evidence. [ref. Exhibit 1A Tab 2 Schedule 1 page 15]

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO CANADIAN UNION OF PUBLIC EMPLOYEES LOCAL ONE

RESPONSE:

1) Please see the following table for the 2011-2015 expenditures by category:

$M	2011 Actual	2012 Actual	2013 Actual	2014 Bridge	2015 Test
Design & Construction Contractors	140.6	70.8	129.8	191.5	176.1
Road Cut Repairs	20.0	16.9	19.3	17.1	15.8
Contracted Services	38.5	28.9	94.4	153.7	82.7
Administrative Fees & Purchased Services	13.1	11.9	13.0	7.3	19.8
Temporary Staff	8.3	5.3	5.1	7.1	6.5
	220.5	**133.7**	**261.6**	**376.7**	**300.8**

2) Please see response to the Undertaking J2.29-CUPE-2 (1).

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO CANADIAN UNION OF PUBLIC EMPLOYEES LOCAL ONE

UNDERTAKING NO. J2.29-CUPE-16:

Reference(s): CUPE Interrogatory 4

With reference to Exhibit 4A, Tab 4, Schedule 3, page 11, where THESL states:
To limit the rate increases for the upcoming rate period, Toronto Hydro proposes to continue to replace employees as they retire on a "Just in time" basis. This is not the optimal approach to workforce renewal, given the time that is required to safely and effectively train new workforce entrants to work on Toronto Hydro's distribution system. It was adopted, however, to constrain costs over the 2015 to 2019 period. As a long- term strategy, this approach is not preferred because it may compromise Toronto Hydro's ability to satisfy its commitments.

Please explain:
d) Why "as a long term strategy, this approach is not preferred because it may compromise Toronto Hydro's ability to satisfy its commitments."

THESL Reply: The rationale for this statement is that sustained use of the "just-in-time" approach may not allow enough time to provide for knowledge transfer and integrate employees into the workforce on a long term basis. In addition, based on the challenges in the Canadian utility sector as cited in the Conference Board of Canada report, Toronto Hydro may have difficulty recruiting employees with the necessary skills and experience from the external labour market when they are required.

1) With reference to this reply, and THESL's reply to part f), please explain how this approach of not allowing enough time for knowledge transfer and employee integration into the workforce will not impact productivity?

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO CANADIAN UNION OF PUBLIC EMPLOYEES LOCAL ONE

2) Please also explain why it makes sense to THESL not to hire the staff they need now and have proper knowledge transfer etc., but rather leave it to the future when in its own words "Toronto Hydro may have difficulty recruiting employees with the necessary skills and experience from the external labour market when they are required".

RESPONSE:

1) As indicated in its response to interrogatory 4A-CUPE-4 part (f) at this time, the "Just in Time" approach is not expected to impact productivity since it is possible to utilize this approach for knowledge transfer while there is still a cohort of senior and experienced certified and skilled trades employees available. The use of senior and experienced employees to transfer knowledge occurs while less experienced employees work alongside employees that are more seasoned to broaden their knowledge of the Toronto Hydro's plant.

2) Toronto Hydro acknowledges that this approach is not optimal from a utility perspective, however as detailed throughout its evidence, this approach represents a balancing of various objectives and considerations, including rate impacts. Importantly, this approach allows for proper knowledge transfer by leveraging 1) the utility's existing cohort of senior and experienced certified and skilled trades employee to train and mentor less experienced employees, and 2) partnerships with colleges and universities (Exhibit 4A, Tab 4, Schedule 3, page 20, lines 11 to 19).

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TOCANADIAN UNION OF PUBLIC EMPLOYEES LOCAL ONE

UNDERTAKING NO. J2.29-CUPE-17:

Reference(s): CUPE Interrogatory 4

e) The knowledge transfer strategy for "'just in time' replacement of employees as they retire".

1) Please confirm whether the following is correct: in effect, what THESL is saying in its response is that rather than utilizing the retiring employees "to transfer corporate and technical knowledge to newly hired employees", instead it will use the senior and experienced employees who are not retiring to do this. This is in place of these experienced staff spending their time doing core work.
2) So THESL will have a double loss of productivity and effectiveness hit by using this approach i.e., the existing staff who remain and the new hires will not be as productive and effective. Is this how THESL looks to effectively constrain costs?

RESPONSE:

1) The use of senior and experienced employees to transfer knowledge is not a separate program. The knowledge transfer occurs as part of the core work program, as less experienced employees work alongside employees that are more seasoned.

2) This approach is not expected to impact productivity. It is possible to utilize this approach for knowledge transfer while there is still a cohort of senior and experienced certified and skilled trades employees available now. The use of senior and experienced employees to transfer knowledge occurs when less experienced employees work alongside employees who are more seasoned.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO CANADIAN UNION OF PUBLIC EMPLOYEES LOCAL ONE

UNDERTAKING NO. J2.29-CUPE-18:

Reference(s): CUPE Interrogatory 4

f) Since date of implementation until 2019, please provide the annual gross and net cost savings from "just in time" replacement of employees as they retire along with the number of retired employees who have been replaced in this manner.

THESL reply: "Toronto Hydro has not quantified the precise annual cost savings of "just in time" hiring model."

1) Precise annual cost savings are not necessary to address this question. Please provide a ballpark estimate of savings. Please utilize the staff retirement figures provided in 4A-CUPE-5 part a) to estimate these savings.

RESPONSE:

1) A rough estimate of the projected cost avoidance of the "just in time" hiring model in 2015 is $7.5M. This estimate was calculated using the 2019 CUPE retirement projections provided in the response to interrogatory 4A-CUPE-5 part (a), based on the assumption that Toronto Hydro would hire the staff to fulfill these retirement vacancies in 2015 to allow for a four-year lead time training period that is typically required for certified and skilled trades.

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO CANADIAN UNION OF PUBLIC EMPLOYEES LOCAL ONE

UNDERTAKING NO. J2.29-CUPE19:

Reference(s): CUPE Interrogatory 4

With reference to evidence on staff retirement levels at Exhibit 4A, Tab 4, Schedule 3, page 16, Table 4 "Toronto Hydro Retirement Projections (2014-2019)"

b) Provide on an annual basis the actual retirements for 2007 to 2013 broken down by the categories in a) above.
c) external staff hires [of new permanent staff on the Toronto Hydro payroll] resulting from retirements for 2007 to 2019. Also provide the number of these who were engaged initially as temporary staff by Toronto Hydro.

THESL Response to both parts b) & c):
The table below provides a breakdown of actual retirements by the requested categories, for 2011 to 2013. Toronto Hydro objects, on the basis of relevance, to providing pre-2011 actual retirements as this information predates the utility's last rebasing application (EB-2010-0142), and has no probative value to deciding the issues in this Application.

1) Provide the 2007-2010 data as has been requested. THESL has provided data for 2007 to 2010 in assorted points in submitted evidence as noted below.

   Clearly, the data for this period is relevant to the issues to be determined in the application and THESL has itself relied on the data in respect of this period. Data starting in 2006 or 2007 is provided & discussed in evidence at numerous points including the following:

TECHNICAL CONFERENCE UNDERTAKING RESPONSE TO CANADIAN UNION OF PUBLIC EMPLOYEES LOCAL ONE

- Exhibit 1B, Tab 2, Schedule 5, page 32 D16 – Safety Gains [occupational injury costs since 2007]
- Exhibit 1B Tab 2 Schedule 5 Appendix A "THESL Historic Performance and Productivity Initiatives From Amalgamation to Present" [the period beginning 2007 is discussed]
- Exhibit 2B Section E2 page 10 [capex since 2006 is presented & discussed]
- Exhibit 2B Section E6.1 pgs 19, 20, 24, 25, 27, 28 [underground equipment failures are presented & discussed]
- Exhibit 2B Section E6.7 pg 16 table 5 HISTORICAL RELIABILITY FOR FEEDERS PROPOSED FOR CONVERSION [data beginning in 2007 is provided]
- Exhibit 4A, Tab 4, Schedule 3, page 2, Figure 1 provides staffing and capex for 2007 to 2019

RESPONSE:

Toronto Hydro declines, on the basis of relevance, to provide the requested breakdown for 2007 to 2010, as this information predates the utility's last rebasing application. Toronto Hydro's position is that the aggregate figures already provided are reasonably appropriate for the 2007 to 2010 time period. The level of detail requested for the 2007 to 2010 period was examined by the OEB and interested parties in four previous rate applications, namely: EB-2007-0582, EB-2007-0680, EB-2009-0139 and EB-2010-0142.