

## RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES

1 **INTERROGATORY 1:**

2 **Reference(s):**           **Exhibit 1, all**

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4

5 a) For all adjustments made as part of the interrogatory process please provide a  
6 tracking table showing the adjusted revenue requirement, the category under which  
7 the adjustment is made (rate base, OM&A etc.) and a reference to the interrogatory  
8 for which that change was made. An example of this form of table is shown below.

Reference	Item	Regulated Return on Capital	Regulated Rate of Return	Rate Base	Working Capital	Working Capital Allowance	Amortization	PILs	OM&A	Service Revenue Requirement	Base Revenue Requirement	Gross Revenue Deficiency
OEB IR # 24 (a) & (b)	<b>Original Submission August 2010</b>	<b>\$10,824,124</b>	<b>7.08%</b>	<b>\$152,808,317</b>	<b>\$125,598,185</b>	<b>\$18,839,728</b>	<b>\$7,816,331</b>	<b>\$1,212,310</b>	<b>\$10,183,838</b>	<b>\$30,036,603</b>	<b>\$28,980,640</b>	<b>\$5,012,440</b>
EP IR # 13 (e)	Adjust Infrastructure Ontario Debt to 1 Day Change	\$11,168,599 \$344,475	7.31% 0.23%	\$152,808,317 \$0	\$125,598,185 \$0	\$18,839,728 \$0	\$7,816,331 \$0	\$1,212,310 \$0	\$10,183,838 \$0	\$30,381,077 \$344,475	\$29,325,115 \$344,475	\$5,356,914 \$344,475
EP TCQ # 9 & EP IR # 19 (a)	PILs Correction - Input Error - Bldg amount in Class 1b Change	\$11,168,599 \$0	7.31% \$0	\$152,808,317 \$0	\$125,598,185 \$0	\$18,839,728 \$0	\$7,816,331 \$0	\$1,213,484 \$1,175	\$10,183,838 \$0	\$30,382,252 \$1,175	\$29,326,289 \$1,175	\$5,358,089 \$1,175
EP TCQ # 9 & VECC TCQ # 1 (b) & (c)	AFUDC Rate on Capitalized Interest Change	\$11,196,054 \$27,455	7.31% \$0	\$153,183,959 \$375,642	\$125,598,185 \$0	\$18,839,728 \$0	\$7,823,920 \$7,589	\$1,213,336 -\$148	\$10,183,838 \$0	\$30,417,147 \$34,896	\$29,361,185 \$34,896	\$5,392,984 \$34,896
EP IR # 11 (b) & VECC TCQ # 1 (a)	Adjust Purchase kWh for CDM Adjmts Change	\$11,196,054 \$0	7.31% \$0	\$153,183,959 \$0	\$125,598,185 \$0	\$18,839,728 \$0	\$7,823,920 \$0	\$1,213,336 \$0	\$10,183,838 \$0	\$30,417,147 \$0	\$29,361,185 \$0	\$5,279,238 -\$113,746
EP IR # 11 (b) & VECC TCQ # 1 (a)	Adjust Purchase kWh for CDM Adjmts @ Application Power Rates Change	\$11,204,832 \$8,778	7.31% \$0	\$153,304,058 \$120,099	\$126,398,846 \$800,661	\$18,959,827 \$120,099	\$7,823,920 \$0	\$1,215,199 \$1,863	\$10,183,838 \$0	\$30,427,788 \$10,641	\$29,371,826 \$10,641	\$5,289,879 \$10,641
VECC TCQ # 1 (b) & (c)	Adjust Oct 15/10 Navigant Numbers, Power, GA & \$68.38 RPP Rates Change	\$11,202,097 -\$2,735	7.31% \$0	\$153,266,641 -\$37,417	\$126,149,397 -\$249,449	\$18,922,410 -\$37,417	\$7,823,920 \$0	\$1,214,619 -\$580	\$10,183,838 \$0	\$30,424,473 -\$3,315	\$29,368,510 -\$3,315	\$5,286,564 -\$3,315
Decision EB-2010-0002	Adjust NW & CN kW for Purchase & CDM Adjmts Change	\$11,212,740 \$10,642	7.31% \$0	\$153,412,249 \$145,608	\$127,120,117 \$970,720	\$19,068,018 \$145,608	\$7,823,920 \$0	\$1,216,877 \$2,259	\$10,183,838 \$0	\$30,437,374 \$12,901	\$29,381,412 \$12,901	\$5,299,465 \$12,901
OEB IR # 21	Adjust NW & CN kW for IESO & HONI January 1, 2011 Price Increases Change	\$11,221,588 \$8,848	7.31% \$0	\$153,533,306 \$121,057	\$127,927,161 \$807,044	\$19,189,074 \$121,057	\$7,823,920 \$0	\$1,218,755 \$1,878	\$10,183,838 \$0	\$30,448,100 \$10,726	\$29,392,137 \$10,726	\$5,310,191 \$10,726
EP IR 23 (c) / 29 (a) & (b) EP TCQ 14 (a)	OMERS increase for 2012 & 2013 Change	\$11,222,972 \$1,384	7.31% \$0	\$153,552,243 \$18,938	\$128,053,411 \$126,250	\$19,208,012 \$18,938	\$7,823,920 \$0	\$1,219,049 \$294	\$10,310,088 \$126,250	\$30,576,028 \$127,928	\$29,520,065 \$127,928	\$5,438,118 \$127,928
EP IR 40 & EP TCQ 21 (a)	Removal of Street Light Return & PILs Change	\$11,222,972 \$0	7.31% \$0	\$153,552,243 \$0	\$128,053,411 \$0	\$19,208,012 \$0	\$7,823,920 \$0	\$1,219,049 \$0	\$10,310,088 \$0	\$30,576,028 \$0	\$29,586,071 \$66,006	\$5,504,124 \$66,006
EP IR 41 / EP TCQ 21(b)	PILs - Computer Hardware to Correct CCA Account Change	\$11,222,972 \$0	7.31% \$0	\$153,552,243 \$0	\$128,053,411 \$0	\$19,208,012 \$0	\$7,823,920 \$0	\$1,193,531 -\$25,518	\$10,310,088 \$0	\$30,550,510 -\$25,518	\$29,560,553 -\$25,518	\$5,478,606 -\$25,518
	PILs - Land Rights CCA Change	\$11,222,972 \$0	7.31% \$0	\$153,552,243 \$0	\$128,053,411 \$0	\$19,208,012 \$0	\$7,823,920 \$0	\$1,192,976 -\$555	\$10,310,088 \$0	\$30,549,955 -\$555	\$29,559,998 -\$555	\$5,478,051 -\$555

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1 **RESPONSE:**

2 Please see table below. The only identified changes were a minor increase to PILs and an  
 3 increase to total Revenue Offsets.

4

5 **Summary of Changes (\$M)**

Reference	Item	Rate Base	Working Capital Allowance	Amortization	PILs	OM&A	Service Revenue Requirement	Revenue Offsets	Base Revenue Requirement	Gross Revenue Deficiency
Original Submission	23-Sep-14	3,312.4	241.7	208.2	22.4	265.1	707.3	45.1	662.2	-107.4
OEB Staff 78 Change (\$)	Changes to Ontario Small Business Tax	3,312.4	241.7	208.2	22.5	265.1	707.4	45.1	662.3	-107.5
					<b>62,680</b>		<b>62,680</b>		<b>62,680</b>	<b>62,680</b>
3-SIA-30 Change (\$)	Correction to Revenue Offsets from Specific	3,312.4	241.7	208.2	22.5	265.1	707.4	46.1	661.4	-106.6
								<b>963,700</b>	<b>-963,700</b>	<b>-963,700</b>
Revised Submission Change (\$)	14-Nov-14	3,312.4	241.7	208.2	22.5	265.1	707.4	46.1	661.4	-106.6
					<b>62,680</b>		<b>62,680</b>	<b>963,700</b>	<b>-901,020</b>	<b>-901,020</b>

## **RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES**

1 **INTERROGATORY 2:**

2 **Reference(s):** **Exhibit 1, Tab 2, Schedule 5, Appendix C**

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5 a) In its Reply Submission to the issue of confidentiality with respect to the sale of  
6 property THESL makes the following statement: “*Toronto Hydro has proposed to*  
7 *credit all net proceeds of sale from the Properties back to ratepayers.*” Yet in  
8 Attachment A of the above reference (Navigant Assessment) it states in reference to  
9 operating center moves and sales that “[N]one of the funds will be used for facilities  
10 or equipment for the delivery of electricity to THESL customers. Please explain this  
11 apparent discrepancy.

12

13

14 **RESPONSE (PREPARED BY NAVIGANT):**

15 a) There is no discrepancy as the two statements are mutually exclusive. The first  
16 statement refers to proceeds that Toronto Hydro will accrue from the sale of these  
17 properties. The second statement refers to funds for which Toronto Hydro is  
18 requesting authorization from the OEB which will be used solely for the  
19 consolidation and relocation of operating centers, and not for electric distribution  
20 investments such as overhead lines and substation equipment. Navigant’s report does  
21 not state or imply that proceeds from the sale would be used to fund the consolidation  
22 and relocation of the operating centers.

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1 **INTERROGATORY 3:**

2 **Reference(s):** **Exhibit 1A, Tab 2, Schedule 1, page 27**

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5 a) Please provide the THESL's CPI actual/forecast for each of the years 2012 through  
6 2019. Please provide the source for these figures.

7

8

9 **RESPONSE:**

10 Please refer to response to interrogatory 2A-SEC-14, part b.

## RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES

1 **INTERROGATORY 4:**

2 **Reference(s):**           **Exhibit 1A**

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5 a) Based on THESL's current forecasts please provide a chart showing the annual bill of  
6 a residential customer at 1000kWh/month for each of the years 2010 through 2019.

7 Please show the forecast/assumptions.

8 b) Please prepare a graph which compares this annual amount to the actual and forecast  
9 CPI.

10

11

12 **RESPONSE:**

13 a) The table below shows the annual bill of a residential customer at 1,000 kW from  
14 2010 to 2019:

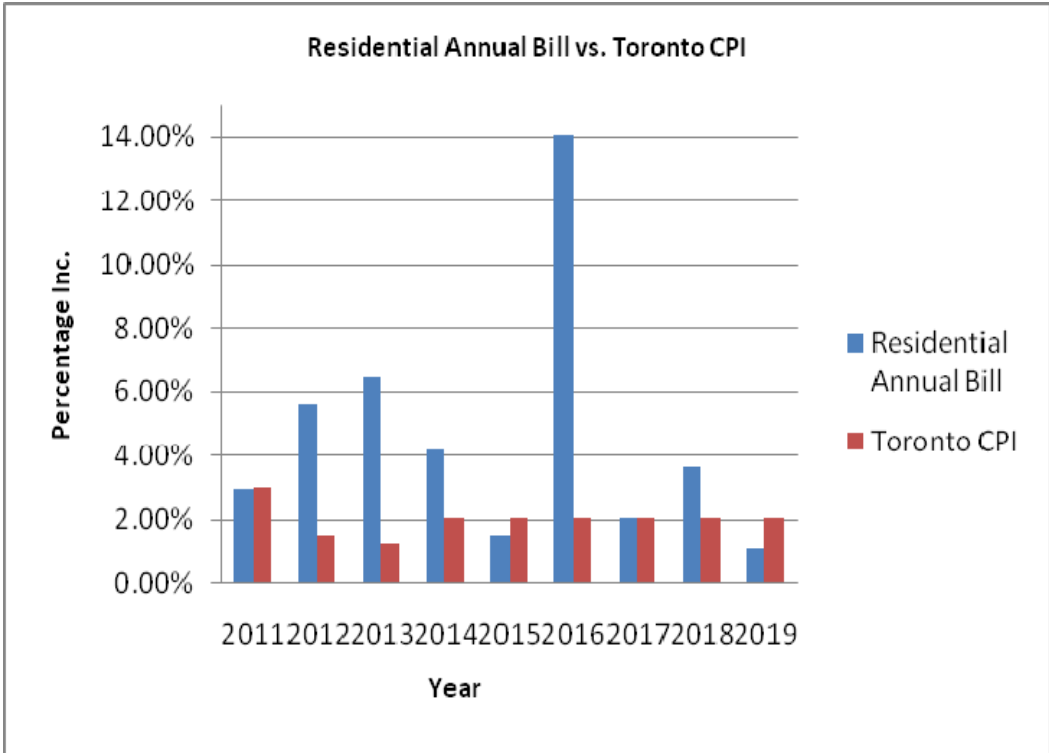
<b>Year</b>	<b>Annual Residential Bill*</b>	<b>Percentage Increase</b>
2010	\$1,615.56	N/A
2011	\$1,663.68	3.0%
2012	\$1,757.28	5.6%
2013	\$1,871.16	6.5%
2014	\$1,949.94	4.2%
2015	\$1,978.51	1.5%
2016	\$2,256.93	14.1%
2017	\$2,303.31	2.1%

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Year	Annual Residential Bill	Percentage Increase
2018	\$2,386.97	3.6%
2019	\$2,413.41	1.1%

- 1 Annual residential bills are calculated with the following assumptions:
- 2 i) Annual bill is calculated based on average Time-of-Use rates and OEB-
- 3 approved distribution rate order of the calculating year.
- 4 ii) Annual bill includes applicable taxes (GST/HST) & Ontario Clean Energy
- 5 Benefit which commenced January 1, 2011 and is assumed to expire on
- 6 December 31, 2015.
- 7 iii) Where applicable, 1,000 kWh is adjusted for the OEB-approved Total Loss
- 8 Factor of 3.76% for Toronto Hydro to obtain the appropriate billing
- 9 determinant.
- 10 iv) Global Adjustment and any OEB approved Global Adjustment rate riders are
- 11 not applicable to the Residential class on Time-of-Use rates.
- 12 v) The May 1, 2014 Time-of-Use rates are used in the calculation of the annual
- 13 bill from 2014-2019, consistent with Bill Impact tables in Exhibit 8A, Tab 7,
- 14 Schedule 1.
- 15
- 16 b) The graph below compares the Residential Annual Bill percentage increases and the
- 17 Toronto CPI percentage increases, from 2011 to 2019.

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## **RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES**

1 **INTERROGATORY 5:**

2 **Reference(s):** **Exhibit 1B, Tab 2, Schedule 5, Appendix B and**  
3 **Exhibit 1B, Tab 6, page 3, Table 1**

4

5

6 a) At section 1.4 of the PSE Benchmarking Report its notes that in many use jurisdiction  
7 weather-normalize SAIFI/SAIDI statistics (excluding major event days) in order to  
8 gauge reliability performance during normal operating conditions. Please provide the  
9 author's view of why this is done and explain any significant impact it may have  
10 when comparing Ontario to U.S. Utilities.

11 b) Using Table 1 in the Report please identify the utilities eliminated from the analysis  
12 due to the absence of having comparable SAIFI/SAIDI data.

13 c) Since THESL track outages by cause code please explain why benchmark or targets  
14 for reduction of interruptions by the defective equipment, scheduled outage or other  
15 more informative statistics were not used.

16

17

18 **RESPONSE (PREPARED BY PSE):**

19 a) Weather-normalization is often done to evaluate reliability metrics during the normal  
20 operations of the utility. Severe weather events can significantly impact reliability  
21 indexes, which is why excluding major event days is sometimes done to attempt to  
22 reduce weather impacts from the reliability metrics. PSE used U.S. data that included  
23 the major event day outages in order to make the data set consistent with the Ontario  
24 data set.

25



## **RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES**

- 1 b) All of the utilities that were not in the reliability sample but that were in the total cost  
2 sample were eliminated due to PSE's inability to locate comparable reliability data, or  
3 other data used in the model. Please see the response to interrogatory 1B-BOMA-89  
4 for additional context.
- 5
- 6 c) Comparable data for most Ontario or U.S. utilities regarding cause codes is not  
7 available.

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1 **INTERROGATORY 6:**

2 **Reference(s):** **Exhibit 1B, Tab 2, Schedule 7, Appendix B**

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4

5 a) At page 14 of the Innovative Research Group Customer Consultation Report  
6 (“Report”) it provides various responses to the workbook and subsequent survey.  
7 Please provide the actual sample size for each rate class surveyed and for whom  
8 results are shown in this Report.

9 b) Please comment on the statistical significance of the survey response vis-à-vis the  
10 population size for each class.

11 c) At page 24 of the Report it shows the outages experienced over the past 2 years  
12 Please show the actual outages for the last 2 years for the classes that were included  
13 in that response. Please explain how they compare.

14 d) At page 20 of the Report it shows customer response to the question of how THESL  
15 can improve service. The responses sum to 102%. Please explain why.

16 e) With respect to the responses on page 20 please explain how respondents were  
17 required to indicate their preference. That is, were the responses mutually exclusive  
18 or were they ranked (i.e. collectively exhaustive)?

19 f) At page 33 it asks if customers prefer to replace equipment when it breaks down even  
20 it means power outages. The response was - 73% would prefer proactive  
21 replacement. What “equipment” is being discussed in this question? What portion of  
22 outages for each of 2011 through 2013 was due to faulty equipment (i.e. non-weather  
23 or animal/human interference related)?

24 g) At page 34 it states that “*More than half (56%) of residential respondents agree that*  
25 *it is “very important” for Toronto Hydro to invest now in modernizing the grid.*”

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1       What information was provided to the respondents in order for them to understand the  
2       meaning of “modernizing the grid”?

3       h) At page 40 it indicates that 47% of respondents believe THESL should change some  
4       of the priorities. What priorities were ranked/reviewed by the respondents? Which  
5       priorities did the respondents believe need changing?

6       i) What information and questions did THESL give/ask consumers in respect to the  
7       complement or compensation of THESL employees and its executives?  
8  
9

### **10       RESPONSE (PREPARED BY INNOVATIVE RESEARCH GROUP):**

11       a) The survey questions were embedded within the workbook itself. A total of 202  
12       residential customers and seven business customers went through the entire workbook  
13       and answered all questions.  
14

15       b) This was an online survey and so a margin of error is not applicable as per the  
16       Marketing Research and Intelligence Association (MRIA). The goal of the workbook  
17       was not to collect a statistically representative sample, but rather to give all ratepayers  
18       an opportunity to share their opinions on THESL plan.  
19  
20

### **21       RESPONSE (PREPARED BY TORONTO HYDRO):**

22       c) Toronto Hydro’s outage tracking system (ITIS) does not provide the granularity  
23       required to track the two reliability methodologies presented in the figure reference  
24       by rate class.

## **RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES**

1 **RESPONSE (PREPARED BY INNOVATIVE RESEARCH GROUP):**

2 d) This is due to rounding. When creating charts, data is rounded up or down to the  
3 nearest whole number. So, when adding the whole numbers shown in the chart, the  
4 result may be greater than 100%.

5

6 e) The responses shown in the chart are coded responses to a fully open-ended question.  
7 Respondents answered in their own words, and then we coded the responses into like  
8 categories.

9

10 f) “Equipment” in this context refers to the various components that make up the  
11 electrical grid in Toronto. Respondents answered based on everything they had read  
12 about the grid up until this point in the workbook, and any knowledge they had  
13 beforehand.

14

15

16 **RESPONSE (PREPARED BY TORONTO HYDRO):**

17 f) The proportion of unplanned customer interruptions that was due to faulty equipment  
18 is as follows:

- 19 • 2011 – 39%
- 20 • 2012 – 47%
- 21 • 2013 – 38%

22

23

24 **RESPONSE (PREPARED BY INNOVATIVE RESEARCH GROUP):**

25 g) On the page in the workbook prior to that question, respondents were provided with  
26 information on Feeder Automation, Power Line Monitors, Transformer Monitors and

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1 Energy Storage. The full question wording addressed the possible implications of  
2 modernizing the grid: “Modernizing the grid can allow Toronto Hydro to improve  
3 reliability. Investments such as automated switches may allow Toronto Hydro to  
4 minimize the number of people impacted by outages and to restore electricity to most  
5 customers in a matter of seconds. Given there are many other areas of needed  
6 investment, such as connecting new customers, replacing aging equipment and  
7 expanding capacity for long-term growth, how important to you feel it is for Toronto  
8 Hydro to invest now in modernizing the grid”.

9

10 h) In the workbook, the page previous to this question included a chart which illustrated  
11 what proportion was going to spent on each of twelve areas (replacing aging and  
12 obsolete equipment, expanding capacity for long-term growth, connecting customers,  
13 improving reliability by reconfiguring circuits, updating IT infrastructure,  
14 accommodating construction projects in the city, modernizing the grid, maintaining  
15 and upgrading customer meters, building maintenance, connecting renewable  
16 generation, vehicles and equipment for crews, and accommodating electric vehicles).

17

18 Figure 1.23 on page 41 and Figure 1.24 on page 42 summarize where respondents  
19 would like to see either more or less spending. Over half (53%) would like more  
20 spent on modernizing the grid, and one in five (20%) would like less spent on non-  
21 capital expenses and major infrastructure projects. Please note that these two charts  
22 show coded results to open-ended questions.

23

24 i) This was not a part of the consultation work and so it was not investigated.

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1 **INTERROGATORY 7:**

2 **Reference(s):** **Exhibit 1B, Tab 2, Schedule 7, Appendix B**

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5 a) Beginning at page 106 of the survey result there are summaries of customer telephone  
6 surveys. The stated purpose of these surveys was “*to obtain statistically significant*  
7 *quantitative feed on the proposed DSP and to assess reaction to customer opinions*  
8 *obtained from the previous research phases.*” Were the same questions asked in both  
9 surveys? If yes, please provide a table that compares the results of the two surveys.

10

11

12 **RESPONSE (PREPARED BY INNOVATIVE):**

13 The “previous research phases” refers to the online workbook, facilitated discussions and  
14 workshops that are covered in the earlier sections of the report. There are some key  
15 questions that were asked across all phases of the research, but as the first three phases  
16 were exploratory (and qualitative in the case of the facilitated discussions and workshops)  
17 in nature, it would not be appropriate to compare the results of one research phase to  
18 another in a tabular format. The research program was designed such that all earlier  
19 phases of the research program aided in the design of the final telephone survey  
20 instrument.

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1 **INTERROGATORY 8:**

2 **Reference(s):** Exhibit 2A, Tab 1, Schedule 1, pp.7-8

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- 5 a) Please provide a breakdown of the \$66.7 in capital additions that were above the  
6 Board approved in 2011 (i.e., Stray Voltage equipment/715 Milner/Other).
- 7 b) Please explain why this amount Stray Voltage Equipment and Milner Property  
8 purchase were unknown at the time of the 2011 rebasing application.

9  
10

11 **RESPONSE:**

- 12 a) The table below details the 2011 capital additions that were above the OEB-approved  
13 amount:

Category	2011 Capex (\$M)
715 Milner	17.3
Civil & Underground	36.0
Canadian Power Survey Corporation Lease	13.4
<b>Total</b>	<b>66.7</b>

- 14 b) Amounts associated with the Stray Voltage Equipment were unknown at the time of  
15 the 2011 rebasing application because the capital lease with Canadian Power Survey  
16 Corporation was signed in the third quarter of 2013.

17

- 18 Amounts associated with the Milner Property were unknown at the time of the 2011  
19 rebasing application because Toronto Hydro had not yet made the decision to acquire  
20 a property in the eastern part of Toronto.

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1 **INTERROGATORY 9:**

2 **Reference(s):**           **Exhibit 2A, Tab 1, Schedule 2, Continuity Schedule**

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5 a) In 2011 through 2013 THESL shows significant additions and retirements to its  
6 Transportation Equipment (Account 1935). In 2014 no retirements are forecast and  
7 notwithstanding the forecast addition of 4.4 million in such equipment. Please  
8 explain why there are not retirements forecast for Transportation Equipment in 2014?

9 b) Please explain why there are no Transportation Equipment Retirements in 2015.

10  
11

12 **RESPONSE:**

13 a) As shown in Exhibit 2A, Tab 1, Schedule 2 and summarized in the table below, the  
14 historical net book value amounts for retirement/transfers for Transportation  
15 Equipment are immaterial.

		2011 CGAAP	2012 UGAAP	2013 UGAAP
Cost	Retirement	(\$7,257,634)	(\$7,623,507)	(\$832,365)
Accumulated Depreciation	Retirement	\$7,185,827	\$7,039,462	\$773,987
<b>Net Retirement</b>		<b>(\$71,806)</b>	<b>(\$584,045)</b>	<b>(\$58,377)</b>

16 Toronto Hydro did not forecast retirements for Transportation Equipment (Account  
17 1930) in 2014 under the assumption that any retirements will occur at the end of asset  
18 useful lives resulting in zero net book value.

19



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- 1 b) Please refer to the response above in part a). The assumption for Transportation
- 2 Equipment retirements in 2014 also applies in 2015.

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1 **INTERROGATORY 10:**

2 **Reference(s):** **Exhibit 2A, Tab 1, Schedule 2, Continuity Schedule**

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5 a) THEL's forecast contribution & grants for 2014 and 2015 appear to be significantly  
6 lower than past actuals (see table below). Please explain how the 2014 and 2015  
7 forecast for contributions is calculated. If it is calculated based on specific  
8 connection projects please show these.

Description	Account	2011	2012	2013	2014 (MIFRS)	2015
Capital Contributions	1995	36,381,079	22,061,046	23,083,937	17,606,991	15,285,779

9  
10

11 **RESPONSE:**

12 The capital contribution recoveries for 2014 and 2015 were forecasted using the average  
13 recovery for routine customer connection jobs during 2012 and 2013, excluding unique  
14 large projects such as Civil Install Cherry Street Realignment, West Don Lands Phase 1,  
15 and Sherway Gardens Connection that resulted in a \$45.1 million recovery in 2012-2013.  
16 At this time, Toronto Hydro does not have any signed offers to connect large projects  
17 with substantial recovery factors<sup>1</sup> in the bridge and test years. Therefore, the capital  
18 contribution recoveries for 2014 and 2015 were forecast based on the normalized  
19 historical trends for 2012 and 2013. Toronto Hydro excluded 2011 recoveries because

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<sup>1</sup> Substantial recovery occurs where the cost to expand the system to provide the customer with additional power is not offset by an increased in load revenue, therefore a higher contribution from the customer is requested to offset the cost of the expansion work.

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1 the definitions of system enhancements and expansion in its Conditions of Service were  
2 revised in January 2011. This change affected the contributed capital that was payable in  
3 2011 as a large portion of the projects in that year were based on agreements which were  
4 concluded under the previous definitions.

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1 **INTERROGATORY 11:**

2 **Reference(s):** Exhibit 2A, Tab 5, Schedule 1, pg. 17

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5 a) Please show the allocation of the \$10.9 million difference in value of transferred  
 6 street lighting assets (39.8-28.9) as between that due to normal asset evolution and  
 7 that due to valuation changes.

8

9

10 **RESPONSE:**

11 a) Please see the table below for a breakdown.

	<u>in millions</u>
<b>Value of Assets Eligible to be Transferred as per Valuation Decision</b>	<b>28.9</b>
<b><u>Valuation Changes</u></b>	
Valuation Changes of 2010 Base Assets	13.0
2011-2014 Depreciation of 2010 Base Assets	(7.6)
<b>Net Valuation Change</b>	<b>5.4</b>
<b><u>Normal Asset Evolution</u></b>	
2011-2014 Additions	5.7
2011-2014 Depreciation on New Additions	(0.2)
<b>Net Asset Evolution</b>	<b>5.5</b>
<b>Value of Transferred Streetlighting Assets</b>	<b>39.8</b>

## **RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES**

1 **INTERROGATORY 12:**

2 **Reference(s):** **Exhibit 2A, Tab 6, Schedule 1, p. 2**

3

4

5 a) Why did THESL change the interest rate used for CWIP to the weighted average cost  
6 of borrowing (from Board approved rate)?

7

8 What is the cost difference in 2015 of these methodologies? Given the short-term  
9 nature of project financing why would THESL's (Board's) cost of short-term not be  
10 more appropriate than the weighted costs?

11

12

13 **RESPONSE:**

14 Toronto Hydro changed the interest rate used for CWIP on transition to MIFRS. The  
15 weighted average cost of debt was applied under MIFRS to comply with Article 410 of  
16 the Accounting Procedures Handbook for Electricity Distributors, which states:

17

18 The Board will continue to publish interest rates for Construction Work in  
19 Progress (CWIP). Where incurred debt is acquired on an arm's length basis, the  
20 actual borrowing costs should be used for determining the amount of carrying  
21 charges to be capitalized to CWIP for rate making during the period, in  
22 accordance with IFRS.

23

24 The cost difference between these methodologies in 2015 is approximately \$1.2 million.

25 It would not be appropriate to use the OEB-approved rate because it does not comply  
26 with MIFRS requirements and the Accounting Procedures Handbook.

## **RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES**

1 **INTERROGATORY 13:**

2 **Reference(s):** **Exhibit 2A, Tab 6, Schedule 2, Appendix 2-AA**

3

4

5 a) Please explain the category Contingency Enhancement that begins in 2015.

6 b) Please explain the category of General Plant costs called “Inflation” is included in the  
7 capital budget.

8

9

10 **RESPONSE:**

11 a) The objective of the Contingency Enhancement program is to make improvements to  
12 feeders in the existing distribution systems that are currently unable to quickly restore  
13 power to affected customers under a contingency situation. Please refer to Exhibit  
14 2B, Section E7.1 for more information about this program.

15

16 b) As indicated in Exhibit 2B, Section E4.2.5 (Other Capital Expenditures Spending  
17 Profile), the inflation category captures inflation costs for expenditures in 2016  
18 through 2019. Please also refer to Toronto Hydro’s response to interrogatory 2A-  
19 SEC-14.

## **RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES**

1 **INTERROGATORY 14:**

2 **Reference(s):** **Exhibit 2A, Tab 6, Schedule 2, Appendix 2-AA**

3 **Exhibit 2A, Tab 1, Schedule 1**

4

5

6 a) Please explain the reasons for the large drop in capital/additions/spending in 2012 as  
7 compared to the previous and subsequent years.

8

9

10 **RESPONSE:**

11 a) The drop in 2012 is attributable to the immediate ramp-down of the capital program  
12 following the OEB's decision in EB-2011-0144. This ramp-down had a direct impact  
13 on the scheduling and execution of the capital program, and the resulting spending  
14 levels, in 2012.

## **RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES**

1 **INTERROGATORY 15:**

2 **Reference(s):** **Exhibit 2A, Tab 10, Schedule 2, page 4**

3

4

5 Pre-amble:

6 The purpose of these questions is to better understand how MEDs are defined and used  
7 by THESL.

8

9 a) Please explain how a Major Event Day (“MED) thunderstorm is delineated from a  
10 “regular” thunderstorm. Are there certain conditions under which equipment  
11 flooding is categorized as part of a MED and others when it is not? Please explain  
12 how THESL divines the difference between a “major event day” and “something  
13 major that happens on a day”

14

15

16 **RESPONSE:**

17 Toronto Hydro uses the IEEE Standard 1366-2012 2.5 Beta method for calculating an  
18 MED threshold, which is then used to determine which days are considered a “major  
19 event day”. This method is a SAIDI-based threshold and each year’s MED threshold  
20 would be based on the past five years of data. As an example, if Toronto Hydro’s daily  
21 MED threshold is ten minutes, a day would be considered to be an MED if the sum of all  
22 the events for a single day exceeds a SAIDI of ten minutes.



## **RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES**

1 **INTERROGATORY 16:**

2 **Reference(s):** **Exhibit 2A, Tab 5, Schedule 1, p.6**  
3 **Exhibit 2B, Section D2, Overview of Assets Managed, p.13 and**  
4 **Exhibit 4A, Tab 2, Schedule 1, p.**  
5  
6

- 7 a) In the discussion regarding streetlighting assets it states that the OIP study shows  
8 approximately 27% of poles were older than 1970. The table at 2B/Section D2, page  
9 13 appear to show wood poles with an age of about 40%. At Exhibit 4A its states that  
10 31% of poles will exceed 45 years. Are the findings of the Distribution plan similar  
11 or different than those for similar assets done for the streetlighting transfer?  
12 b) Does the estimate of pole age have a bearing on THESL's pole replacement program?  
13  
14

15 **RESPONSE:**

- 16 a) Toronto Hydro confirms that proportions of poles that exceed 45 years of age are  
17 relatively similar for distribution poles (i.e., 31% for Exhibit 4A, Tab 2, Schedule 1,  
18 page 8) and for poles that are part of the streetlighting transfer (i.e., 27% for Exhibit  
19 2A, Tab 5, Schedule 1, page 6).  
20  
21 b) Yes, the estimate of pole age is one of the determining factors for pole replacement  
22 decisions.

## **RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES**

1 **INTERROGATORY 17:**

2 **Reference(s):** **Exhibit 2B, Section D, Appendix A – 2014 Asset Condition**  
3 **Assessment Audit**

4

5

6 a) Please explain how THESL is responding to recommendation 6 of the Audit:

7 *“Consider adopting the recommended Health Index formulations presented in the*  
8 *Kinectrics 2010 Audit. If required, continue refining the recommended Health*  
9 *Index formulations and determine what is feasible from an operational*  
10 *perspective”.*

11

12

13 **RESPONSE:**

14 a) Please refer to Toronto Hydro’s response to interrogatory 2B-EP-33.

## **RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES**

1 **INTERROGATORY 18:**

2 **Reference(s):** **Exhibit 2B, Section E8.3, pg. 23**

3

4

5 a) Please update the ERP spending for 2014 to show the actual spending to date.

6 b) Has THESL completed its selection of a vendor(s) for this project? If not when is this  
7 expected to occur?

8

9 **RESPONSE:**

10 a) Actual 2014 ERP Program spending as of September 30, 2014 is \$0.5 million.

11

12 b) Toronto Hydro has not completed its selection of an ERP System Vendor for the ERP  
13 Program. The selection process will be completed only if and when this Application  
14 process is completed.

## RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES

1 **INTERROGATORY 19:**

2 **Reference(s):** **Exhibit 2B, Section E8.1**

3 **Exhibit 1A, Tab 6, Schedule 2, Appendix 2-AA**

4  
5

6 a) Based on the preliminary budget of \$52.1 million, please provide the annual 2015 to  
 7 2019 capital improvement budgets that are included in the rate plan for the Rexdale  
 8 property.

9 b) When does THESL expect to have a detailed budget for renovation of this property?

10 c) Please reconcile the “Facilities” line for 2014-2019 (1<sup>st</sup> table) with Table B (2<sup>nd</sup> table)  
 11 from the Distribution Plan showing OCCP capital expenditures.

<b>System Service Investments Sub-Total</b>	<b>104.1</b>	<b>86.8</b>	<b>56.5</b>	<b>62.5</b>	<b>49.5</b>	<b>73.9</b>
Fleet and Equipment Services	2.6	3.9	3.2	3.7	3.5	3.6
Facilities	90.3	53.8	24.2	2.0	2.0	1.9
IT Hardware	5.2	5.9	8.0	7.4	9.8	5.6
IT Software	10.1	15.5	16.2	15.8	16.8	16.8
Radio Project	-	6.7	13.7	-	-	-
ERP*	0.9	17.7	33.6	-	-	-
Program Support	0.4	1.2	0.5	-	-	-
<b>General Plant Investments Sub-Total</b>	<b>109.5</b>	<b>104.6</b>	<b>99.4</b>	<b>28.9</b>	<b>32.1</b>	<b>27.9</b>

Year	Historical Spending					Future Spending				
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
<b>CAPEX (\$M)</b>	<b>0.0</b>	<b>17.3</b>	<b>0.0</b>	<b>7.7</b>	<b>82.7</b>	<b>37.4</b>	<b>14.8</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

## RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES

1   **RESPONSE:**

- 2   a) Toronto Hydro forecasts the capital expenditures for the Rexdale facility are  
 3       estimated to be \$18.8 million in 2015 and \$14.4 million in 2016.  
 4
- 5   b) Toronto Hydro expects to have a detailed budget for the Rexdale facility by 2014Q4.  
 6
- 7   c) The “Facilities” line in the schedule noted above for 2014 – 2019 (Exhibit 2A, Tab 6,  
 8       Schedule 2) includes both Facilities Management and Security and Operating Centres  
 9       Consolidation Programs. Please refer to the table below for the 2014 to 2019  
 10       “Facilities” capital expenditures breakdown. Facilities Management and Security  
 11       capital expenditures in the table below agree to Exhibit 2B, Section E8.2, Table C and  
 12       the OCCP capital expenditures in the table below agree to Exhibit 2B, Section E8.3,  
 13       Table B.

<b>PROGRAM</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
Facilities Management and Security	\$7.5	\$16.5	\$9.4	\$2.0	\$2.0	\$1.9
Operating Centers Consolidation Program	\$82.7	\$37.4	\$14.8	\$-	\$-	\$-
<b>Total</b>	<b>\$90.3</b>	<b>\$53.8</b>	<b>\$24.2</b>	<b>\$2.0</b>	<b>\$2.0</b>	<b>\$1.9</b>

## **RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES**

1 **INTERROGATORY 20:**

2 **Reference(s):** **Exhibit 3, Tab 1, Schedule 1, pages 3-4**  
3 **OEB Exh3\_T01\_S01\_Modelling Input Data**  
4  
5

6 **Preamble:**

7 The text on page 3 (lines 7-8) indicates that historical cumulative CDM impacts are  
8 added back to system purchased energy. The text on page 4 (lines 14-16) goes on to  
9 explain the load forecast models are developed on a class basis.  
10

- 11 a) Please confirm that the dependent kWh/day variable was based on the purchased  
12 energy for each customer class?
- 13 b) If purchased energy was the basis, please explain why it was used as opposed to using  
14 delivered energy by class.
- 15 c) If based on purchased energy, how were the monthly purchased energy values  
16 determined for each class (i.e., what loss factor was applied to the delivered energy  
17 for year/class)?
- 18 d) For those customer classes where calendar month based meter readings and,  
19 therefore, actual energy use were not available for all of the historical period (2002-  
20 2013), please explain how the kWh for each calendar month were established in order  
21 to derive the kWh/day dependent variable.
- 22 e) Please provide the data file (with formulae intact) that calculates the purchased  
23 kWh/day as set out in the file referenced above based on the monthly usage by class,  
24 where this monthly usage by class reconciles (for the years 2009-2013) with the  
25 actual annual usage by class set out in Table 3 (Exhibit 3/Tab 1/Schedule 1,  
26 Attachment B-1, page 1).

## **RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES**

1   **RESPONSE:**

- 2   a) Toronto Hydro confirms that the dependent kWh/day variable was based on the  
3       purchased energy for each customer class.  
4
- 5   b) As filed and approved by the OEB in previous rate applications, Toronto Hydro  
6       continues to use purchased energy as the basis for the dependent kWh/day because it  
7       represents the most reliable calendarized data available.  
8
- 9   c) Purchased energy is allocated by customer class by month based on historical billed  
10       kWh percentages. The process of purchased energy allocation consists of the  
11       following steps. First, historic billed consumption is collected for each customer  
12       class. Second, billed kWh for each customer class are prorated to the months of  
13       actual consumption. Third, the percentages of the prorated consumption by class to  
14       the total prorated consumption for each month are calculated. Fourth, the derived  
15       percentages are applied to historic total purchased energy to get purchased energy by  
16       customer class.  
17
- 18   d) Please see response to part (c).  
19
- 20   e) The requested data file is provided in 3\_VECC\_20E.xlsx.

## **RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES**

1 **INTERROGATORY 21:**

2 **Reference(s):** **Exhibit 3, September 23, 2014 Update Letter**

3

4

5 a) With respect to page 13, please explain what the sources and effect of the “updated”  
6 CDM estimates are (i.e., what was the source of the update and what years’ values  
7 were impacted?).

8 b) Please explain how/why this update affected the estimation of the forecast models set  
9 out in Appendix A-2.

10

11

12 **RESPONSE:**

13 a) The development of the LRAMVA and load forecasts was dependent on Toronto  
14 Hydro CDM results from the OPA. The report provided by the OPA was an  
15 unverified version, which was subsequently updated in August 2014.

16

17 At the same time, Toronto Hydro’s CDM project tracking system was updated to  
18 allow for improved rate class and monthly allocations. The CDM team recognized an  
19 opportunity to further enhance the accuracy of the LRAMVA claim by making  
20 additional changes to the original application to incorporate this improved  
21 information. With this new information, Toronto Hydro felt it was also appropriate to  
22 apply the new assumptions to each historical year. So while the update to the 2013  
23 CDM results did not impact total CDM results prior to 2013, the more accurate class  
24 allocation assumptions were applied to historical results for the September update,  
25 where appropriate.

26



## **RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES**

- 1 b) The update of the CDM historical allocation by class by month had an effect on the
- 2 kWh per day used as the dependent variable in the regression model and hence, on the
- 3 outcome of the forecast models set out in Appendix A-2.

**RESPONSES TO VULNERABLE ENERGY CONSUMERS  
 COALITION INTERROGATORIES**

1 **INTERROGATORY 22:**

2 **Reference(s): Exhibit 3**  
 3 **E3/T1/S1, page 3 and page 12**  
 4 **OEB Exh3\_T01\_S01\_Modelling Input Data**  
 5  
 6

7 **Preamble:**

8 The referenced data file contains historical CDM kWh/day for each customer class.  
 9

- 10 a) Please confirm that the cumulative CDM impacts used in the data file are “purchased  
 11 energy impacts“ and provide the relevant loss factors used for each class (by year).  
 12 b) Please provide a schedule that sets out the total gross CDM savings impact of each  
 13 historic year’s CDM programs on that year’s and subsequent years’ purchased energy  
 14 in the following format:  
 15

Program Year	CDM Impact (Gross) by Calendar Year (MWh)							
	2006	2007	2008	2009	2010	2011	2012	2013
2006								
2007	X							
2008	X	X						
2009	X	X	X					
2010	X	X	X	X				
2011	X	X	X	X	X			
2012	X	X	X	X	X	X		
2013	X	X	X	X	X	X	X	
Total								

**RESPONSES TO VULNERABLE ENERGY CONSUMERS  
 COALITION INTERROGATORIES**

- 1 c) Please provide either copies of the reports (or links to the OEB/OPA/THESL web-  
 2 sites where they can be found) that support/validate the values set out in response to  
 3 part (b) along with specific references to where in each document the relevant data is  
 4 sourced from.
- 5 d) Please explain how the cumulative annual savings for each year were translated into  
 6 monthly savings and illustrate the process using 2013 data.
- 7 e) Please explain more fully why, as indicated on page 12, THESL believes that gross  
 8 CDM savings numbers are the correct values to apply in its load forecast modelling.
- 9 f) Has THESL undertaken any load forecast analyses using net CDM values? If so,  
 10 please provide the models and the associated forecasts for 2015-2019.
- 11 g) If THESL has not undertaken load forecast analysis using net CDM values, please  
 12 undertake the following:
- 13 i) provide a revised data file with net CDM kWh/day by class (as opposed to gross  
 14 CDM kWh/day by class);
- 15 ii) provide revised load forecast equations for each class using this data;
- 16 iii) provide forecasts for 2015-2019 by customer class using these models.

17  
 18

**RESPONSE:**

- 19  
 20 a) Toronto Hydro confirms that the cumulative CDM impacts in the data file are  
 21 “purchased energy impacts“. The table below shows the Loss Factors by customer  
 22 class used for all years.

Residential	GS<50kW	GS 50-999kW	GS 1000-4999 kW	Large Use	Street Lighting	USL
1.0376	1.0376	1.0376	1.0376	1.0187	1.0376	1.0376

## RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES

1  
2  
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14

b) The table below includes the total gross CDM savings impact of each historic year's CDM programs on that year's and subsequent years' purchased energy.

Year	CDM impact (gross) by calendar year (MWh)*							
	2006	2007	2008	2009	2010	2011	2012	2013
2006	22,643	56,010	56,010	56,010	37,395	9,964	9,630	9,138
2007		105,464	297,429	234,304	226,833	226,830	166,548	40,551
2008			120,179	197,018	195,627	195,318	191,709	185,485
2009				102,547	193,516	183,543	183,516	182,780
2010					269,774	390,962	376,500	376,474
2011						120,256	325,476	325,235
2012							62,073	148,720
2013								73,090
Total	22,643	161,474	473,617	589,879	923,145	1,126,872	1,315,452	1,341,473

\*CDM loads are excluding losses

c) The historical annual gross savings are taken from two different sources:

1) 2006 – 2010 Annual Gross Savings: *2006-2010 Final OPA CDM Results – Toronto Hydro-Electric System Limited* (a copy of the data file has been attached as 3\_VECC\_22C.xlsx).

2) 2011 – 2013 Annual Gross Savings: *Draft Verified Annual 2013 CDM Report – Toronto Hydro-Electric System Limited* (a copy has been filed as Exhibit 9, Tab 2, Appendix B). Please refer to the net savings in the table on page 4, and the net-to-gross conversion factors in the table on page 6.

## **RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES**

1 d) To translate the annual gross savings into monthly savings, the following steps were  
2 taken:

3  
4 1) Each month was assigned a percentage of the annual savings that would be  
5 considered initiated in that month, and thus, projects beginning in that month  
6 would continue to produce savings for the next 12 consecutive months in order to  
7 achieve their percentage of the annual total. For example, for the portion of  
8 projects that initiated in January of a given year, annual savings would be realized  
9 by December of the same year. However, for the portion of total projects which  
10 were considered initiated in June of a given year, annual savings would be  
11 realized by May of the following year. As a result of this application, the savings  
12 reported by the OPA for any given calendar year would actually span that given  
13 year as well as the next, in a similar but more comprehensive manner to the “half-  
14 year” rule. The percentages assigned to each month were developed from the  
15 project completion records in Toronto Hydro’s Customer Resource Management  
16 (CRM) system.

17  
18 2) Typical program measures were assessed for their pattern of annual savings, so as  
19 not to allocate the same level of peak demand or consumption savings each  
20 month, without discretion. For example, peak demand and consumption savings  
21 related to programs involving cooling loads were considered 100% realized in the  
22 hottest months (July and August). However, the savings resulting from these  
23 projects were reduced accordingly in the shoulder and heating months. The  
24 primary resource for determining the seasonal allocation of savings was the  
25 OPA’s Conservation Program Resource Planning Tool V3.3.

26

**RESPONSES TO VULNERABLE ENERGY CONSUMERS  
COALITION INTERROGATORIES**

- 1 e) Toronto Hydro believes that “gross“ historical and estimated CDM savings are the  
2 correct values to apply in to the load forecast, because it represents the real impact on  
3 the load used to develop the rates used to collect the Revenue Requirement.  
4
- 5 f) Toronto Hydro has not undertaken load forecast analysis using Net CDM values.  
6
- 7 g) Please refer to the attached data file: 3\_VECC\_22G.xlsx.

## **RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES**

1 **INTERROGATORY 23:**

2 **Reference(s):** **Exhibit 3, Tab 1, Schedule 1, page 5 (lines 6-10)**

3

4

5 a) Did THESL undertake any similar analysis to determine whether 18 degrees Celsius  
6 was the appropriate balance point for the CDD measure?

7 b) If not, why not?

8 c) If yes, please provide the results.

9

10

11 **RESPONSE:**

12 a) Yes, a similar analysis was performed to make sure that 18 degrees Celsius was the  
13 appropriate temperature balance point for CDD measure.

14

15 b) Not applicable.

16

17 c) Figure 2, page 5 of Exhibit 3, Tab 1, Schedule 1 graphically displays the relationship  
18 between Toronto Hydro's historic purchased energy and average temperature. While  
19 the left hand side of the plotted relationship indicates the appropriate balance point  
20 for the HDD calculation, the right hand side illustrates the fact that the "cooling" load  
21 "builds up", displaying a clear linear relationship with average temperature at the  
22 point of 18 degrees and higher.

23

24 When Toronto Hydro originally developed the HDD10 measure, statistical analysis  
25 was performed on the appropriate base temperatures for both HDD and CDD.

26 CDD18 was determined to be appropriate.

## RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES

1

2 As an example of such analysis, the table below illustrates the “goodness of fit” of the  
3 regression models for all classes when CDD18 is replaced by CCD20 (CDD  
4 calculated based on the 20 degrees Celsius base temperature). In all cases, the models  
5 exhibit a poorer statistical fit.

Customer class	Adjusted R <sup>2</sup> with CDD18 (models as filed)	Adjusted R <sup>2</sup> with CDD20 (CDD base temperature of 20 degrees Celsius)
Residential	93.7%	85.8%
GS<50 kW	93.0%	89.7%
GS 50-1000 kW	95.2%	91.6%
GS 1-5 MW	87.0%	83.9%
Large Users	74.2%	71.4%



## RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES

1 **INTERROGATORY 24:**

2 **Reference(s):** **Exhibit 3, Tab 1, Schedule 1, page 6**

3

4

5 a) Please document and/or illustrate the change in trend for the GS<50 and Large Use  
6 classes as between the 2002-2009 period and the 2010-2013 period.

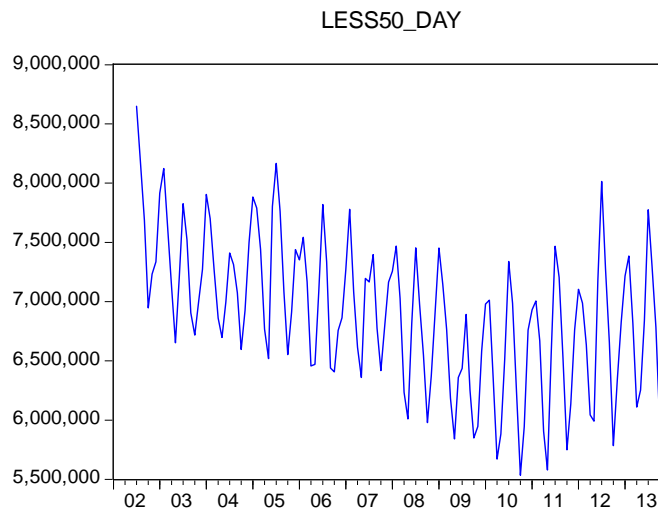
7 b) Please demonstrate that such a change in “trend” does not exist for the Residential  
8 and GS>50 classes.

9

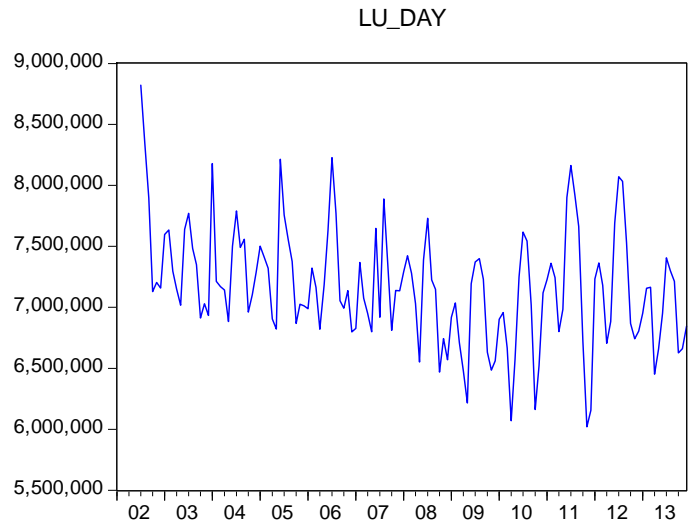
10

11 **RESPONSE:**

12 a) The graphs below clearly illustrate the change in load trends for GS<50 kW and  
13 Large Users classes between 2009 and 2010 years.



## RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES



- 1 The tables below contain an alternative forecast made based on a “standard” Linear
- 2 Trend variable for the GS<50 kW and Large User classes. The comparison of the
- 3 outcomes with the filed forecasts clearly demonstrates that linear trends are unreasonably
- 4 lowering the forecasts values and not properly reflecting the latest tendencies in the
- 5 explanatory variables.

**Table 1: GS<50 kW Annual Delivered kWh**

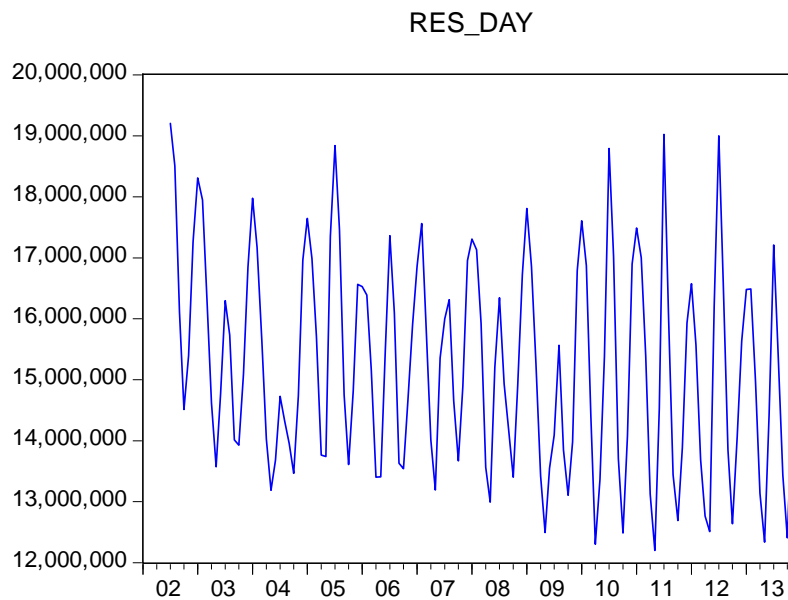
Year	Model as filed with Spline Trend	Model with Basic Linear Trend	Variance, %
2014	2,134,640,222	2,115,142,100	-0.9%
2015	2,118,402,162	2,075,471,386	-2.0%
2016	2,101,996,032	2,033,423,521	-3.3%
2017	2,058,843,341	1,964,927,570	-4.6%
2018	2,016,610,061	1,897,875,782	-5.9%
2019	1,986,965,125	1,843,277,270	-7.2%

## RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES

**Table 2: Large Users Annual Delivered kWh**

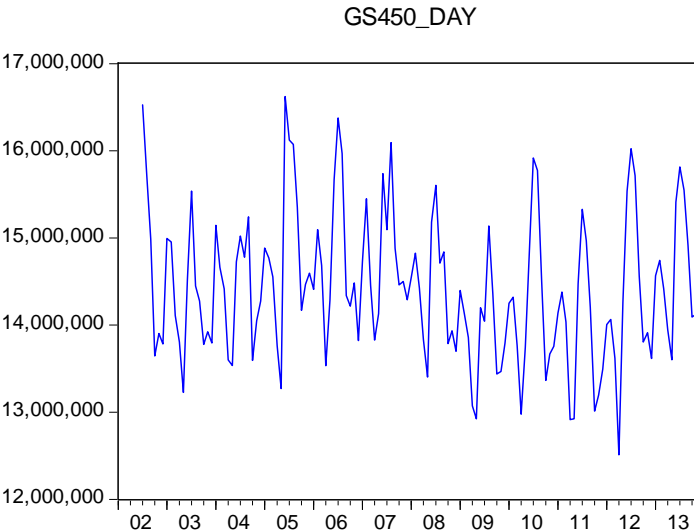
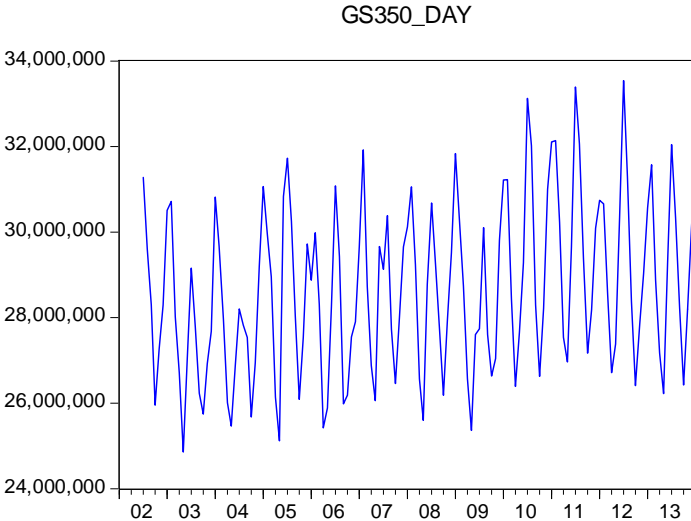
Year	Model as filed with Spline Trend	Model with Basic Linear Trend	Variance, %
2014	2,246,880,155	2,190,829,571	-2.5%
2015	2,228,386,374	2,155,421,973	-3.3%
2016	2,234,712,907	2,138,125,601	-4.3%
2017	2,229,642,449	2,114,551,592	-5.2%
2018	2,225,220,101	2,087,670,503	-6.2%
2019	2,229,610,682	2,072,396,458	-7.1%

- 1 b) The graphs below illustrate the persistence of a declining trend in Residential load
- 2 since July 2002.



# RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES

1 No trends were used in the GS 50-1000 kW and GS 1-5 MW class models.



## **RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES**

1 **INTERROGATORY 25:**

2 **Reference(s):** **Exhibit 3, Tab 1, Schedule 1, page 7**

3

4

5 a) Given there is demonstrable trend in HDD and CDD why didn't THESL use the 20-  
6 year trend for each for purposes of its load forecast?

7

8

9 **RESPONSE:**

10 a) Toronto Hydro has used the 10-year average as its basis for the weather forecast  
11 in its previous filings. This approach was approved by the OEB in Toronto  
12 Hydro's prior rate applications. Additionally, based on its research as well as  
13 discussions with meteorological services, Toronto Hydro continues to believe that  
14 the usage of the 10-year average is relevant for the purposes of load forecasting.

15

16 However, as required by the OEB Filing Requirements, Toronto Hydro has also  
17 filed the alternative load forecast based on the 20-year HDD and CDD trend (refer  
18 to Table 1. Exhibit 3, Tab 1, Schedule 1, Appendix F-2). The variances presented  
19 in column 4 of the table clearly demonstrate that the difference in load forecasts  
20 based on the 10-year weather averages vs. 20-year trend is immaterial.

## **RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES**

1 **INTERROGATORY 26:**

2 **Reference(s):** **Exhibit 3, Tab 1, Schedule 1, page 8**

3

4

5 a) What is the source for the historic population and unemployment values used in  
6 developing the load forecast models?

7 b) Does this historic data differ (in terms of definition) from the forecast values  
8 produced by the Conference Board of Canada? If so, how was this accounted for in  
9 the load forecast?

10 c) Please provide the Conference Board forecast used and indicate the date it was  
11 published.

12 d) Is there a more recent Conference Board forecast now available? If so, please  
13 provide.

14 e) Why was it necessary to “derive” the unemployment and population forecasts used in  
15 load forecast analysis as opposed to directly using the forecasts from the Conference  
16 Board of Canada?

17 f) Please explain in more detail how the unemployment and population forecasts were  
18 “derived”.

19 g) What “loss factors” were used for each customer class to translate the 2015-2019  
20 forecasts by customer class from “purchased” to “delivered energy”?

21 h) Please provide a data file that shows for 2015-2019:

22 i) The calculation of the “purchased kWh/day by class (before CDM adjustments)  
23 using the load forecast model proposed for each.

24 ii) The derivation of the annual kWh by class, as set out in Table 3 (Exhibit 3/Tab  
25 1/Schedule 1, Attachment B-1, page 1).

26

## **RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES**

1   **RESPONSE:**

- 2   a) Toronto Hydro used two sources of data for Unemployment Rate and Population: the  
3       Conference Board of Canada (quarterly historic and forecast data) and the Labour  
4       Force Study data from the City of Toronto (monthly historic data). City of Toronto  
5       data was used as independent social and economic variables in the class models  
6       because the data frequency match the load data, and more closely matches Toronto  
7       Hydro's operating area. The Conference Board of Canada data was used to derive the  
8       forecast for the City of Toronto Population and Unemployment data.  
9
- 10   b) The historic population data provided by the City of Toronto includes only City of  
11       Toronto residents. The Conference Board of Canada data includes the population for  
12       the entire Toronto Census Metropolitan Area, which expands beyond the City of  
13       Toronto. A linear correlation between the two data sets was used to produce the  
14       forecast of the City of Toronto population variable for class load models.  
15
- 16   c) The Conference Board of Canada data used for the forecast was obtained on February  
17       3, 2014. Please refer to the attached electronic data file: 3\_VECC\_26CandD.xlsx.  
18
- 19   d) The most recent Metropolitan Data by the Conference Board of Canada are dated  
20       August 26, 2014. Please refer to the attached electronic data file:  
21       3\_VECC\_26CandD.xlsx.  
22
- 23   e) The Conference Board of Canada data is quarterly annualized and includes  
24       population outside of Toronto, whereas Toronto Hydro's modelling is done on a  
25       monthly basis. Therefore, Toronto Hydro believes that using monthly historic data  
26       for the City of Toronto results in better explanatory properties of the models.

## RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES

1

2 f) The population and unemployment rate forecasts were built using regression  
3 modelling. Simple pair regression models were built to estimate the relationship  
4 between the City of Toronto data and the Conference Board of Canada data. The  
5 significance of the regressions/coefficients and high  $R^2$  values provide a high level of  
6 confidence to produce the forecasts of the City of Toronto population and  
7 unemployment rate based on the corresponding forecasts provided by the Conference  
8 Board of Canada.

9

10 g) The total loss factors used to convert class purchased energy kWh into “delivered  
11 kWh” are presented in the table below.

Customer class	Loss factor value
Residential	1.0376
GS<50 kW	1.0376
GS 50-999 kW	1.0376
GS 1000-4999 kW	1.0376
Large Use	1.0187
Street Lighting	1.0376
USL	1.0376

12 h) The requested data file is provided as 3\_VECC\_26H.xlsx.



## **RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES**

1 **INTERROGATORY 27:**

2 **Reference(s):** **Exhibit 3, Tab 1, Schedule 1, page 10**  
3 **OEB Exh3\_T01\_S01\_Modelling Input Data**  
4  
5

6 **Preamble:**

7 Although the CSMUR class was not created until 2013 it is noted that historical values  
8 are reported starting in December 2007.  
9

- 10 a) Since there has been no analysis presented relating CSMUR usage with weather,  
11 please explain how the CSMUR usage for 2012 was “weather corrected”.
- 12 b) Do the historical Residential kWh/day values for the period prior to December 2007  
13 include any usage by customers that would now be classified as CSMUR?
- 14 c) If so, doesn’t this distort the data used to develop the Residential load forecast model?  
15  
16

17 **RESPONSE:**

18 a) The basis for the CSMUR average usage data was the analysis presented in Toronto  
19 Hydro’s EB-2010-0142 case (the basis for establishing this new class). In order to  
20 put this average use on the same CDD/HDD forecast basis as the other classes, this  
21 usage was normalized to the current ten-year historical average of HDD 10 and CDD  
22 18.  
23

24 b) Toronto Hydro believes there are no customers and corresponding usage that would  
25 fall under the definition of the CSMUR class prior to December 2007.  
26

**RESPONSES TO VULNERABLE ENERGY CONSUMERS  
COALITION INTERROGATORIES**

- 1 c) Not applicable.

## RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES

1 **INTERROGATORY 28:**

2 **Reference(s):** **Exhibit 3, Tab 1, Schedule 1, page 10**

3

4

5 a) Please confirm that the forecast monthly peak demand referred to at lines 18-19 is the  
6 forecast billing peak demand for the class as opposed to the class' Non-Coincident or  
7 Coincident peak demand.

8 b) Please provide the "historic relationship between energy and demand" used for each  
9 class (per lines 19-20) and indicate how it was determined.

10 c) Please clarify which of the following approaches is used to calculate the billing  
11 demand for the relevant customer classes (net of CDM):

- 12 • Approach 1: First, forecast billed energy by class (prior to removing CDM); then  
13 second, apply historic relationship between energy and billed demand to  
14 determine billed demand (prior to removing CDM) and, finally, remove  
15 cumulative CDM impacts on billing demand (per Table 5), OR  
16 • Approach 2: First forecast billed energy by class (prior to removing CDM); then  
17 second, remove the cumulative energy CDM impacts and, finally, apply historic  
18 relationship between energy and billed demand to determine billed demand (with  
19 CDM removed).

20 d) If Approach 1 was used please set out how the cumulative demand impacts (per Table  
21 5) were calculated. In particular, where they determined by applying the historic  
22 energy-demand relationship for the class to the cumulative energy impacts in Table  
23 4? If not, please provide a schedule that sets out the determination of the values in  
24 Table 5.

25

26

## RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES

1   **RESPONSE:**

2   a) Confirmed.

3

4   b) The historic relationships between energy and demand are quantified using “billing  
 5   factors”. Billing factors are coefficients calculated based on historic billing  
 6   determinants (the data from the billing system):

- 7           • Hours used is defined as billed kWh divided by billed kW
- 8           • Power Factor is defined as billed kW divided by billed kVA

9

10       A three-year average is used for each billing factor as an approximation of the  
 11       expected relationship between billed energy and demand. The table below contains  
 12       the estimated billing factor values for the forecasting horizon for each customer class.

	GS 50-999 kW		GS 1000-4999 kW		Large Use	
	Hours Used	Power Factors	Hours Used	Power Factors	Hours Used	Power Factors
Jan	449	94%	516	93%	481	93%
Feb	458	94%	524	93%	487	93%
Mar	431	93%	513	92%	485	93%
Apr	422	92%	491	92%	471	93%
May	418	90%	488	91%	462	92%
Jun	413	90%	485	91%	451	92%
Jul	443	90%	500	91%	463	92%
Aug	432	90%	499	91%	474	92%
Sep	409	90%	480	91%	455	92%
Oct	415	91%	493	91%	467	92%
Nov	441	93%	517	92%	476	93%
Dec	437	93%	496	92%	461	93%

## **RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES**

1 c) Toronto Hydro confirms that Approach 1 was used to calculate the billing demand for  
2 the relevant customer classes (net of CDM).

3

4 d) The CDM demand reduction forecast was determined by applying the 2013 historic  
5 energy-demand savings relationships taken from current CDM programs, rather than  
6 the rate class billing factors. As the current CDM forecasting efforts are focused on  
7 energy savings, ratios were developed to produce the forecasted demand savings.  
8 Since the historical verified CDM results include both energy and demand savings  
9 attributed to each program, the relationship between these two values was used to  
10 determine the forecast demand savings associated with future energy savings from  
11 each historical programs.

12

13 However, the forecast also includes savings allocated to potential new programs for  
14 2015-2020, which at the time were not fully developed. In these cases, the average of  
15 the energy-demand ratios taken from the historical verified results for the appropriate  
16 sector (Residential or General Service) were applied.

## **RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES**

1 **INTERROGATORY 29:**

2 **Reference(s):** **Exhibit 3, Tab 1, Schedule 1, page 11**

3

4

5 a) Are the 7 TWh provincial total and THESL's share of 1.5 TWh Gross CDM or Net  
6 CDM values? If net, what is the "gross" equivalent and how was it calculated?

7

8

9 **RESPONSE:**

10 a) Both the provincial CDM total and Toronto Hydro's share are net CDM values. To  
11 determine the gross equivalent, best estimates of overall residential and non-  
12 residential net-to-gross ratios were derived from the 2013 historical verified results  
13 and these conversion factors were applied to all 2014 to 2019 future savings.

**RESPONSES TO VULNERABLE ENERGY CONSUMERS  
 COALITION INTERROGATORIES**

1 **INTERROGATORY 30:**

2 **Reference(s):** **Exhibit 3, Tab 1, Schedule 1, pages 12-14**

3  
 4

5 a) Please complete the following schedule:

CDM Program Year	Forecast Gross CDM Impact by Calendar Year (MWh)					
	2014	2015	2016	2017	2018	2019
2006						
2007						
2008						
2009						
2010						
2011						
2012						
2013						
2014						
2015	x					
2016	x	x				
2017	x	x	x			
2018	x	x	x	x		
2019	x	x	x	x	x	
Total						

6 In doing so please ensure:

- 7 • The annual totals for 2014 to 2019 match those set out in Table 4 (Exhibit  
 8 3/Tab 1/Schedule) or explain why they do not.

## **RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES**

- 1           • The table entries for the 2014-2019 program years match those set out in  
2           Table 6 or explain why they do not.
- 3   b) Please explain more fully how the values in Tables 5 and 7 were derived.
- 4   c) Please provide a schedule that sets out for each customer class and for the THESL  
5    overall for the individual years 2006-2013:
- 6    i) The annual delivered energy (net of CDM) – consistent with Appendix B-1, Table  
7      1
- 8    ii) The annual purchased energy (net of CDM) (i.e., (i) adjusted for losses)
- 9    iii) The historic cumulative CDM savings for each year (at the purchase level)  
10    consistent with the modelling data input.
- 11   iv) The annual purchases (grossed up by CDM) consistent with the modelling input  
12    data (i.e. (ii) + (iii)).
- 13   d) Please provide a schedule that sets out for each customer class and for THESL overall  
14    for the years 2014-2019:
- 15    i) The forecast of annual purchased energy (grossed up for CDM) based on the  
16    forecasting models.
- 17    ii) The assumed cumulative CDM savings for each year (at the purchase level)  
18    consistent with the modeling data input (i.e. Table 4).
- 19    iii) The assumed annual purchases net of CDM (i.e., (i) – (ii))
- 20    iv) The forecast total delivered energy – consistent with Appendix B-1, Table 1.
- 21



## RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES

1 **RESPONSE:**

2 a) Please see the table below:

Year	Forecast Gross CDM Impact by Calendar Year, MWh					
	2014	2015	2016	2017	2018	2019
<b>2006</b>	8,922	8,604	8,418	8,145	8,145	8,145
<b>2007</b>	40,551	33,385	17,469	14,397	12,062	12,062
<b>2008</b>	169,730	143,832	123,978	100,935	88,060	87,072
<b>2009</b>	179,820	173,975	163,892	132,442	91,029	66,835
<b>2010</b>	375,417	338,368	275,829	242,065	218,757	137,182
<b>2011</b>	324,863	323,128	320,221	316,837	311,448	307,827
<b>2012</b>	148,038	147,848	146,996	144,351	139,794	141,633
<b>2013</b>	171,597	169,593	165,585	159,644	151,130	140,527
<b>2014</b>	92,021	227,454	224,889	219,698	211,783	200,718
<b>2015</b>		99,619	246,300	243,546	237,924	229,353
<b>2016</b>			120,946	298,801	295,377	288,559
<b>2017</b>				147,823	365,202	359,874
<b>2018</b>					141,104	348,601
<b>2019</b>						127,665
<b>Total</b>	1,510,960	1,665,807	1,814,523	2,028,684	2,271,814	2,456,053

3 b) The cumulative forecast CDM demand impacts in Table 5 (Exhibit 3, Tab 1,  
 4 Schedule 1) consist of incremental CDM savings for the current years plus the  
 5 conservation and efficiency measure persistence from the prior years. The total gross  
 6 forecast CDM demand impacts in Table 7 (Exhibit 3, Tab 1, Schedule 1) include  
 7 incremental and persistence CDM savings starting from 2014 only. Please refer to  
 8 Toronto Hydro's response to 3-VECC-28 part (d) for more details.

## RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES

1 c)

2 i) Annual Delivered energy (net of CDM), MWh

Year	Total	Residential	CSMUR	GS <50 kW	GS 50-999 kW	GS 1000- 4999 kW	Large Use	Street Lighting	Unmetered Scattered Load
2006	25,518,717	5,298,514	13	2,453,136	9,814,888	5,184,936	2,600,460	110,621	56,150
2007	25,754,686	5,328,009	2,759	2,446,284	10,068,862	5,191,114	2,549,634	111,053	56,971
2008	25,141,414	5,167,623	9,068	2,315,274	10,000,241	5,009,791	2,471,249	111,324	56,846
2009	24,349,729	5,002,032	23,823	2,180,476	9,844,681	4,786,396	2,343,906	112,001	56,414
2010	24,751,657	5,156,666	50,171	2,095,766	10,191,135	4,829,372	2,263,690	112,750	52,107
2011	24,701,254	5,091,639	81,040	2,085,498	10,275,861	4,670,666	2,340,746	113,045	42,759
2012	24,564,922	5,033,529	112,183	2,124,568	9,978,193	4,794,684	2,367,028	113,595	41,142
2013	24,424,304	4,951,919	140,700	2,157,353	9,842,128	4,905,371	2,272,056	113,644	41,132

3 ii) Annual Purchased Energy (net of CDM), MWh

Year	Total	Residential	CSMUR	GS <50 kW	GS 50-999 kW	GS 1000- 4999 kW	Large Use	Street Lighting	Unmetered Scattered Load
2006	26,429,072	5,497,738	13	2,545,374	10,183,928	5,379,890	2,649,089	114,780	58,262
2007	26,674,874	5,528,342	2,862	2,538,265	10,447,451	5,386,300	2,597,313	115,229	59,113
2008	26,040,025	5,361,926	9,408	2,402,328	10,376,250	5,198,159	2,517,461	115,510	58,983
2009	25,220,979	5,190,109	24,719	2,262,462	10,214,841	4,966,364	2,387,737	116,212	58,535
2010	25,639,535	5,350,556	52,057	2,174,567	10,574,322	5,010,957	2,306,021	116,989	54,067
2011	25,585,782	5,283,085	84,088	2,163,913	10,662,233	4,846,283	2,384,518	117,295	44,367
2012	25,443,826	5,222,790	116,401	2,204,452	10,353,373	4,974,964	2,411,291	117,866	42,689
2013	25,299,716	5,138,111	145,991	2,238,470	10,212,192	5,089,813	2,314,544	117,917	42,679

## RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES

1           iii) Historic cumulative CDM savings (adjusted for losses), MWh

Year	Total	Residential	CSMUR	GS <50 kW	GS 50-999 kW	GS 1000- 4999 kW	Large Use
2006	23,495	23,495	-	-	-	-	-
2007	167,263	104,575	-	15,462	16,547	15,481	15,199
2008	490,133	207,361	-	69,389	72,762	70,957	69,664
2009	609,966	184,883	83	100,173	104,202	107,827	112,798
2010	954,133	214,509	333	173,242	178,181	187,255	200,613
2011	1,164,865	216,524	680	223,917	252,944	234,869	235,932
2012	1,360,360	240,781	1,270	261,313	350,447	261,136	245,412
2013	1,387,802	250,110	1,582	265,269	404,035	245,249	221,557

2           iv) Annual Purchased Energy (gross of CDM), MWh

Year	Total	Residential	CSMUR	GS <50 kW	GS 50-999 kW	GS 1000- 4999 kW	Large Use	Street Lighting	Unmetered Scattered Load
2006	26,452,567	5,521,232	13	2,545,374	10,183,928	5,379,890	2,649,089	114,780	58,262
2007	26,842,137	5,632,917	2,862	2,553,727	10,463,998	5,401,781	2,612,511	115,229	59,113
2008	26,530,158	5,569,287	9,408	2,471,717	10,449,012	5,269,115	2,587,125	115,510	58,983
2009	25,830,945	5,374,992	24,802	2,362,635	10,319,043	5,074,191	2,500,535	116,212	58,535
2010	26,593,668	5,565,065	52,390	2,347,809	10,752,502	5,198,211	2,506,634	116,989	54,067
2011	26,750,647	5,499,608	84,767	2,387,829	10,915,177	5,081,152	2,620,450	117,295	44,367
2012	26,804,186	5,463,571	117,671	2,465,765	10,703,820	5,236,100	2,656,703	117,866	42,689
2013	26,687,518	5,388,221	147,573	2,503,739	10,616,227	5,335,062	2,536,100	117,917	42,679

## RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES

1 d)

2 i) Purchased Energy Forecast (Gross of CDM), MWh

Year	Total	Residential	CSMUR	GS <50 kW	GS 50-999 kW	GS 1000- 4999 kW	Large Use	Street Lighting	Unmetered Scattered Load
2014	26,581,918	5,378,058	180,243	2,518,809	10,695,430	5,127,551	2,520,962	118,186	42,679
2015	26,717,287	5,351,790	223,444	2,537,647	10,821,824	5,112,373	2,509,148	118,383	42,679
2016	26,905,646	5,341,944	267,914	2,554,735	10,919,365	5,141,575	2,518,347	118,970	42,796
2017	26,941,980	5,299,322	303,788	2,557,026	10,955,323	5,144,351	2,520,715	118,776	42,679
2018	27,049,338	5,273,101	341,067	2,564,451	11,022,230	5,159,298	2,527,540	118,973	42,679
2019	27,154,864	5,246,882	380,388	2,572,330	11,086,803	5,170,422	2,536,190	119,170	42,679

3 ii) Cumulative CDM forecast (adjusted for losses), MWh

Year	Total	Residential	CSMUR	GS <50 kW	GS 50-999 kW	GS 1000- 4999 kW	Large Use
2014	1,563,466	259,277	1,919	303,907	500,871	265,428	232,066
2015	1,724,005	257,279	2,314	339,593	602,901	282,827	239,091
2016	1,878,262	251,873	2,780	373,704	711,116	296,944	241,845
2017	2,100,335	265,213	3,312	420,770	843,607	318,055	249,378
2018	2,352,397	285,173	3,888	472,016	986,638	343,974	260,708
2019	2,543,486	293,070	4,471	510,655	1,109,236	361,168	264,886

## RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES

1           iii) Purchased Energy Forecast (Net of CDM), MWh

Year	Total	Residential	CSMUR	GS <50 kW	GS 50-999 kW	GS 1000-4999 kW	Large Use	Street Lighting	USL
2014	25,018,451	5,118,781	178,325	2,214,903	10,194,559	4,862,123	2,288,897	118,186	42,679
2015	24,993,282	5,094,510	221,130	2,198,054	10,218,923	4,829,546	2,270,057	118,383	42,679
2016	25,027,385	5,090,072	265,134	2,181,031	10,208,249	4,844,631	2,276,502	118,970	42,796
2017	24,841,644	5,034,108	300,476	2,136,256	10,111,716	4,826,296	2,271,337	118,776	42,679
2018	24,696,941	4,987,928	337,179	2,092,435	10,035,592	4,815,323	2,266,832	118,973	42,679
2019	24,611,378	4,953,811	375,917	2,061,675	9,977,567	4,809,255	2,271,304	119,170	42,679

2           iv) Delivered Energy Forecast (Net of CDM), MWh

Year	Total	Residential	CSMUR	GS <50 kW	GS 50-999 kW	GS 1000-4999 kW	Large Use	Street Lighting	USL
2014	24,152,773	4,933,289	171,862	2,134,640	9,825,134	4,685,931	2,246,880	113,903	41,132
2015	24,128,179	4,909,898	213,117	2,118,402	9,848,615	4,654,536	2,228,386	114,093	41,132
2015	24,161,161	4,905,620	255,526	2,101,996	9,838,327	4,669,074	2,234,713	114,659	41,245
2015	23,982,059	4,851,685	289,588	2,058,843	9,745,293	4,651,403	2,229,642	114,472	41,132
2015	23,842,519	4,807,178	324,961	2,016,610	9,671,928	4,640,828	2,225,220	114,662	41,132
2015	23,760,137	4,774,298	362,294	1,986,965	9,616,006	4,634,979	2,229,611	114,851	41,132

## RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES

1    **INTERROGATORY 31:**

2    **Reference(s):**            **Tab 1, Schedule 1, page 14 and Appendix C1**

3  
4

- 5    a) Please explain more fully how the customer count for each class was “extrapolated”  
6        from historic levels.
- 7    b) Please explain how the separate customer count forecasts for the Residential and  
8        CSMUR classes were developed.
- 9    c) Please explain the basis for the 2014 Large Use class customer count.
- 10   d) Please provide the customer count for each class as of June 30, 2014.

11  
12

13    **RESPONSE:**

- 14   a) Customer forecasts are based on linear and non-linear trend models, as well as  
15       information on customer reclassification, where available. Different trend models  
16       were tested and the models producing the best fit and forecast were used. For the  
17       CSMUR class, projections for new customers were based on internal estimates of  
18       new and retrofit activities. The following table summarizes the models used for each  
19       class.

<b>Customer Class</b>	<b>Model Used</b>
Residential	Linear Trend
CSMUR	Internal Estimates
GS< 50 kW	Linear Trends, plus reclass information
GS 50-999 kW	Combination of Linear and Non-linear trends, plus reclass information
GS 1000-4999 kW	Linear Trend plus reclass information

## RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES

<b>Customer Class</b>	<b>Model Used</b>
Large Use	Linear Trend plus reclass information
Street-lighting	Linear Trend
Unmetered Scattered Load	Flat forecast

- 1 b) For the purposes of Residential class forecasting, the historic monthly CSMUR  
 2 customers were subtracted from the Residential customer counts (which originally  
 3 included CSMUR customers). A linear trend was then applied to the historical  
 4 residential customers only. The CSMUR class, as noted in part (a) above, was  
 5 forecasted based on internal estimates of new and retrofit activities.  
 6
- 7 c) The expected number of large user customers in 2014 is lower than 2013 due to  
 8 customer reclassification.  
 9
- 10 d) Please see the table below:

<b>Customer class</b>	<b>Number of customers as of June 30, 2014</b>
Residential	609,928
Competitive Sector Multi-Unit Residential	43,022
GS<50 kW	69,078
GS 50-1000 kW	11,852
GS 1-5 kW	447
Large Users	47
Street Lighting (Devices)	163,810
USL (customers)	888
USL (connections)	11,754

## RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES

1 **INTERROGATORY 32:**

2 **Reference(s):** **Exhibit 3, Tab 1, Schedule 1, page 12**

3

4

5 a) Is THESL aware of any other Ontario electricity distributor that has based its load  
6 forecast CDM adjustments on estimates of “gross” CDM savings?

7 b) Please explain why, if the CDM adjustments made by THESL are based on “gross”  
8 CDM savings the LRAMVA should only be based on “net” CDM savings.

9 c) For each of the years 2015-2019 please set out THESL’s proposal, by customer class,  
10 for the CDM savings (kWh or kW as applicable) that it views should be used as the  
11 basis for calculating the LRAMVA.

12

13

14 **RESPONSE:**

15 a) Toronto Hydro does not know whether other electricity distributors use net or gross  
16 savings for the purposes of their distribution load forecasts. Toronto Hydro maintains  
17 that the load forecast that is used to determine distribution rates most appropriately  
18 includes gross CDM savings, since these will contribute to the loads that the  
19 distributor ultimately charges rates on.

20

21 b) Toronto Hydro believes that LRAMVA savings should properly be based on gross  
22 CDM savings, and in a previous LRAM application provided its LRAM amounts on  
23 that basis. However, Toronto Hydro also understands that the LRAMVA guidelines  
24 clearly indicate that LRAMVA is to be based on net CDM savings, and accepts that  
25 for the purposes of LRAMVA claims. However, Toronto Hydro maintains that for



## RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES

- 1 the purposes of load forecasts used to develop distribution rates, gross CDM savings  
 2 are most appropriately reflected in the forecast.
- 3 c) The table below shows the “net” incremental CDM estimates, which correspond with  
 4 the gross CDM amounts used in the load forecast.

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		73.1		238.2		417.2		588.4		736.2
GS 1000-4999 kW		19.8		64.4		112.8		159.1		199.1
Large Use		19.1		62.1		108.9		153.5		192.1
<b>Total</b>	<b>22,479</b>	<b>112.0</b>	<b>81,119</b>	<b>364.7</b>	<b>153,366</b>	<b>638.9</b>	<b>237,213</b>	<b>901.0</b>	<b>312,843</b>	<b>1,127.4</b>

## **RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES**

1 **INTERROGATORY 33:**

2 **Reference(s):** **Exhibit 3, Tab1, Schedule 1, Appendix A-1**

3

4

5 a) Please provide an electronic version of Appendix A-1 where the forecast monthly  
6 2014-2019 values for columns 2-9 are included and the calculation of the annual  
7 delivered energy by customer class (per Appendix B-1, Table 1) is performed.

8

9

10 **RESPONSE:**

11 Please refer to the electronic file 3\_VECC\_26H.xlsx provided as part of Toronto Hydro's  
12 response to interrogatory 3-VECC-26.

## **RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES**

1    **INTERROGATORY 34:**

2    **Reference(s):**           **Exhibit 3, Tab 2, Schedule 1, pages 1-7**

3

4

5    a) Please confirm that the values shown in Tables 1 & 2 are in millions of dollars and  
6       the Appendix 2-H values are in thousands of dollars.

7    b) With respect to page 2 (lines 18-23) does the \$8.1 M cover all of the OM&A costs  
8       incurred by THESL for the maintenance street-lighting assets? If not, what is the  
9       difference?

10   c) Please confirm that the interest income shown excludes any interest income/expense  
11       associated with deferral or variance accounts.

12

13

14    **RESPONSE:**

15    a) The values shown in Table 1 are in millions of dollars. The values shown in Table 2  
16       and Appendix 2-H are in thousands of dollars.

17

18    b) Yes. The \$8.1 million covers all of the OM&A costs incurred by Toronto Hydro for  
19       the maintenance street-lighting assets. Please refer to Exhibit 2A, Tab 5, Schedule 1,  
20       page 23 for details.

21

22    c) Confirmed. The interest income shown excludes any interest income/expense  
23       associated with deferral or variance accounts.

## **RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES**

1 **INTERROGATORY 35:**

2 **Reference(s):** **Exhibit 3**

3 **Exhibit 8, Tab 1, Schedule 1, p. 7**

4

5

6 a) Where are the customers, loads and revenues from THESL's Standby Power Service  
7 Classification reflected in Exhibit 3? Please address separately the revenues from the  
8 Service Charge and the revenues from the Distribution Volumetric Rate.

9 b) Please provide a schedule that sets out for each of the years 2010-2013 the following:

10 i) The number of Standby Power customers,

11 ii) The billed kW (by customer class)

12 iii) The annual revenues from Standby Power charges.

13 c) What are the forecast billing quantities and associated revenues for 2014 and 2015?

14

15

16 **RESPONSE:**

17 a) The historic and forecast customers, loads and revenues in Exhibit 3 do not include  
18 any loads or revenue from the Standby Volumetric rate. The standby volumetric rate  
19 is only applicable if a co-generation unit has been operational for an entire billing  
20 cycle and the customer has not utilized standby facilities. Historically, Toronto  
21 Hydro's Standby customers have utilized the standby facilities each month of each  
22 billing cycle, and have not incurred any volumetric standby charges. Their historical  
23 and forecast loads and revenues are included in the rate classes the customer resides  
24 in. Based on historical information, Toronto Hydro does not forecast any standby  
25 revenue.

26

**RESPONSES TO VULNERABLE ENERGY CONSUMERS  
 COALITION INTERROGATORIES**

1 b)

2 i) There are four customers with load displacement co-generations.

3

4 ii) For the billed kW/kVA (by customer class) please see table below. As noted in  
 5 part (a) above, the billed kVA amounts were billed under the standard distribution  
 6 rates, not under the Standby rates.

Year	Annual Billed kVA GS - 1000 to 4999 kW	Annual Billed kVA LU
2010	48,152	658,768
2011	47,464	589,676
2012	46,331	544,921
2013	34,546	527,095

7 iii) Please see the table below for the Standby customers annual distribution revenue.

8 The only revenue from the Standby service is the monthly Standby Service  
 9 Charge.

Year	Customer Charge	Standby Service Charge	Distribution Charge	Standby Volumetric Charge	Total
2010	\$ 84,474	\$ 9,632	\$2,420,051	\$ -	\$2,514,157
2011	\$ 87,639	\$ 9,632	\$2,511,806	\$ -	\$2,609,077
2012	\$ 106,640	\$ 9,651	\$2,762,775	\$ -	\$2,879,066
2013	\$ 118,851	\$ 9,672	\$2,668,590	\$ -	\$2,797,113

10 c) Please see part (a).

## RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES

1 **INTERROGATORY 36:**

2 **Reference(s):** Exhibit 4A, Tab 2, Schedule 1, page 13

3

4

5 a) It states on page 13 that in 2013 there were a total of 252 incidents of overhead asset  
6 failures – excluding major day events. Please provide the equivalent figures for 2010  
7 through 2014 to-date.

8

9

10 **RESPONSE:**

11 a) Please see Table below.

Year	Number of Overhead Asset Failure Incidents
2014 (Up to October 21 <sup>st</sup> )	247
2013	252
2012	218
2011	299
2010	325

## **RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES**

1 **INTERROGATORY 37:**

2 **Reference(s):** **Exhibit 4A, Tab 2, Schedule 1, page 34**

3

4

5 a) It is unclear as to whether Table 5 represents the vegetation management budget of  
6 THESL for 2011 through 2015. If not please provide this. If there is a projected  
7 increase in the 2015 vegetation management budget from 2014 please explain this in  
8 light of the extraordinary amount of tree trimming that was done due to the 2013/14  
9 ice-storm.

10 b) In 2014 THESL renewed its tree pruning service contract at a 16% increase. Please  
11 quantify the impact this had on 2015 vegetation management. Please identify how  
12 long this contract is for. In renewing this contract explain whether the post ice-storm  
13 demand for vegetation management had an impact of the service contract.

14

15

16 **RESPONSE:**

17 a) Table 5 represents Toronto Hydro's Vegetation Management budget for 2011 through  
18 2015. The increase in expenditures in 2015 is attributed to two factors: (1) an  
19 increase in market prices provided by contractors; and (2) a need to increase  
20 accomplishments to mitigate safety, system reliability and financial risks, especially  
21 during severe weather.

22

23 The forestry work that was executed in response to the 2013 ice storm can be  
24 categorized as follows: (1) removal of fallen tree limbs and branches on primary  
25 conductors, secondary buses and service wires, and (2) cutting and removal of  
26 damaged tree limbs and branches that may have broken and further impacted the

## **RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES**

1 overhead distribution system. The work performed was of emergency nature and  
2 focused exclusively on the trees that sustained damage. No cycle pruning activities  
3 that comprise typical vegetation maintenance work took place as part of the ice storm  
4 response. The increase in the 2015 budget is not related to the ice storm.

5

6 b) The 16% increase to Toronto Hydro's tree trimming contract resulted in an  
7 approximate overall increase of \$0.6 million to the 2015 planned expenditures. This  
8 increase is included in the \$4.4 million (2015) budget. The duration of Toronto  
9 Hydro's Vegetation Management contract is six years.

10

11 The post-ice storm demand did not have an impact on the service contract. The  
12 competitive bidding process was commenced prior to the ice storm.



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1 **INTERROGATORY 38:**

2 **Reference(s):** **Exhibit 4A, Tab 2, Schedule 1, p.71**

3

4

5 a) THESL states that the failure rate of smart meters is 1.5%. How does this compare to  
6 the failure rate of the previous generation of conventional meters that were replaced?  
7 What is THESL's estimate of the incremental cost of smart meter maintenance as  
8 compared to the previous generation of thermal meters?

9

10

11 **RESPONSE:**

12 a) Records from prior to Toronto Hydro's smart meter program indicate that failure rates  
13 for conventional meters were below 0.5%. More recent or precise failure rates are not  
14 available as conventional meter failures were not tracked and recorded as these  
15 meters were upgraded to smart meters regardless of the status of the meter.

16

17 Smart meters are equipped with meter health detection and alarms. This enables  
18 Toronto Hydro to quickly and more accurately detect meter failures, as opposed to  
19 conventional meters which were typically only investigated if billing thresholds were  
20 surpassed or customer complaints existed. This ability to more accurately detect a  
21 meter failure will result in a higher number of failures being reported.

22

23 As a cost comparison, Toronto Hydro's average maintenance costs for conventional  
24 meters prior to the smart meter program (i.e., in years 2004 and 2005) was \$1.0  
25 million compared to \$0.4 million for smart meters in 2015.

## RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES

1 **INTERROGATORY 39:**

2 **Reference(s):** **Exhibit 4A, Tab 2, Schedule 2, page 7**

3

4

5 Pre-amble:

6 With respect to Corrective Maintenance, the evidence states:

7 *Historic expenditures have shown a downward trend due to an increasing emphasis in*  
8 *recent years on planned capital and preventative maintenance activities, particularly on*  
9 *distribution assets, and more efficient corrective work execution practices.*

10

11 a) Yet Table 2 shows an increase in 2015 in this category and notwithstanding the  
12 proposed major increases in the capital budget. Please explain the reason for this.

13

14

15 **Reference:** **Exhibit 4A, Tab 2, Schedule 3**

16

17 b) Please articulate the difference between the Emergency Response program (\$15.3  
18 million) and the Disaster Preparedness Management Program (\$2.4 million).

19

20

21 **RESPONSE:**

22 a) The increase in corrective maintenance spending in 2015 is primarily attributed to the  
23 inclusion of \$1.6 million for corrective maintenance of assets that were formerly part  
24 of the street lighting system. More information is found on page 8 of Exhibit 4A,  
25 Table 2, Schedule 2, which states:

26

## **RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES**

1 “Despite the above, reduction in expenditures to the level experienced in 2013 are  
2 not sustainable in the short term. As described in the Preventative & Predictive  
3 Maintenance program, Toronto Hydro continues to identify a large number of  
4 deficiencies on both distribution and stations assets. Furthermore, significant  
5 proportions of these assets have surpassed their expected lives and are at an  
6 increasing risk of failure. As a result of this combination of factors, Toronto  
7 Hydro is forecasting that corrective expenditures will exceed 2013 levels in 2014  
8 and 2015.

9  
10 Corrective Maintenance expenditures are well below the levels experienced in  
11 2011 and 2012.”

- 12  
13 b) The Emergency Response program funds the utility’s emergency response activities  
14 related to addressing unplanned events involving Toronto Hydro’s distribution system  
15 assets. Response coverage is provided on a 24-hour, 7 days a week, 365 days a year  
16 basis. Activities include the planning, communication, coordination, and execution of  
17 work to address system emergencies. Emergency response is required for a wide  
18 variety of reasons including but not limited to equipment failure, severe weather,  
19 power quality issues, motor vehicle accidents, dig-ins, equipment isolations and  
20 Toronto Emergency Services needs (police, fire and ambulance).

21  
22 The Disaster Preparedness Management (“DPM”) program supports Toronto Hydro’s  
23 Emergency Response program by enhancing the planning, communication and  
24 coordination of work prior to, during and after major events, across the utility and in  
25 relation to customers and key stakeholders. A key focus of the DPM program is  
26 ensuring that the utility can operate safely, efficiently and effectively for an extended

## **RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES**

1 period of time under conditions of major duress, To accomplish this objective, the  
2 program entails a range of planning, training and simulation exercise activities, along  
3 with negotiation of Mutual Aid Agreements with utilities with similar service areas. .  
4 Please refer to Exhibit 4A, Table 2, Schedules 3 to 4 for more information about these  
5 programs.

**RESPONSES TO VULNERABLE ENERGY CONSUMERS  
 COALITION INTERROGATORIES**

1 **INTERROGATORY 40:**

2 **Reference(s):** **Exhibit 4A, Tab 2, Schedule 14, pages 38-43**

3  
 4

5 a) Please provide the training and conference budgets for THESL for the years 2011  
 6 through 2015 in the following format:

- 7 • Technical/engineering training;
- 8 • Other training;
- 9 • Executive /senior management training/conferences & travel

10  
 11

12 **RESPONSE:**

13 Please see table the below:

<b>Category (\$M)</b>	<b>2011 Actual</b>	<b>2012 Actual</b>	<b>2013 Actual</b>	<b>2014 Bridge</b>	<b>2015 Test</b>
Technical/Engineering Training	0.23	0.07	0.12	0.21	0.25
Other Training	0.99	1.09	1.21	1.12	1.12
Executive /Senior management training/conferences & travel	0.01	0.04	0.17	0.04	0.04
<b>Total</b>	<b>1.23</b>	<b>1.19</b>	<b>1.49</b>	<b>1.36</b>	<b>1.40</b>

**RESPONSES TO VULNERABLE ENERGY CONSUMERS  
 COALITION INTERROGATORIES**

1 **INTERROGATORY 41:**

2 **Reference(s):** **Exhibit 4A**

3  
4

- 5 a) Please provide the EDA membership fees paid or forecast to be paid by THESL for  
 6 2011 through 2015. Please provide separately other corporate memberships.  
 7 b) Does THESL procure insurance through the MEARIE Group? If yes please provide  
 8 the premiums paid for 2011 through 2015 (forecast). Were all property liability  
 9 insurance services provided for through a tender or other competitive process or were  
 10 they sole sourced?

11  
12

13 **RESPONSE:**

14 a) Please see the table below:

	2011 Actual	2012 Actual	2013 Actual	2014 Bridge	2015 Test
<b>EDA</b>	\$0.11M	\$0.11M	\$0.14M	\$0.13M	\$0.13M
<b>CEA</b>	\$0.07M	\$0.07M	\$0.08M	\$0.08M	\$0.08M

- 15 b) The Mearie Group provides Life Insurance benefits to Toronto Hydro employees. A  
 16 summary of annual amounts paid to the Mearie Group is provided below:

	2011 Actual	2012 Actual	2013 Actual	2014 Bridge	2015 Test
Mearie	\$2.9M	\$3.1M	\$3.0M	\$2.0M	\$2.0M

## **RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES**

1 All Toronto Hydro's property insurance brokerage services are currently provided by  
2 Willis Canada Inc. ("Willis"), whose contract has been awarded following an RFP  
3 process. Willis provides and prepares insurance renewal submissions and negotiates  
4 the terms of subsequent coverage agreements on behalf of the utility.

## **RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES**

1 **INTERROGATORY 42:**

2 **Reference(s):** **Exhibit 4A, Tab 2, Schedule 6, page 2**

3

4

- 5 a) Table 2 shows “Damage prevention” rising from \$1.6 million in 2013 to a forecast of  
6 \$4.7 million in 2015. The accompanying explanations (beginning on page 7)  
7 describes how the sub-costs for this category (cable locates) have increased from  
8 2011 to 2013. However, the overall costs for this category actually decreased from  
9 2011 to 2013. That is, the reasons provided do not appear to support the increase  
10 from 2013 to 2015. Please explain why these costs are more than doubling between  
11 2013 and 2014.
- 12 b) Please provide the actual amounts spent on Damage Prevention as of the end of 3<sup>rd</sup>  
13 quarter of 2014.

14

15

16 **RESPONSE:**

- 17 a) As described in Exhibit 4A, Tab 2, Schedule 6, pages 8-9, Toronto Hydro realized  
18 significant cost efficiencies from 2011 to 2013 through initiatives such as contracting  
19 out all locates and the execution of Alternate Locate Agreements. Although Toronto  
20 Hydro is continuously looking for efficiencies, it does not expect further cost  
21 efficiencies in 2014 and 2015 in the Damage Prevention segment. Due to this factor,  
22 and for reasons that include the following information, Damage Prevention costs are  
23 expected to more than double between 2013 (i.e., \$1.6 million actual expenditure) and  
24 2015 (i.e., \$4.7 million forecast):

25



## **RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES**

- 1       i) \$1.7 million is attributed to locate requests related to assets that were formerly  
2       part of the City of Toronto's street lighting system (Exhibit 4A, Tab 2, Schedule  
3       6, page 12);
- 4       ii) \$0.3 million is attributed to a one-time credit that was provided by a third party  
5       locate provider in 2013 that is not expected to re-occur (Exhibit 4A, Tab 2,  
6       Schedule 6, page 11);
- 7       iii) \$0.5 million is attributed to higher levels of locate requests than historically seen  
8       due to increased awareness of Ontario One Call (Exhibit 4 A, Tab 2, Schedule 6,  
9       page 12); and
- 10      iv) \$0.3 million for incremental overhead line cover oversight and damage prevention  
11      claim investigations.
- 13
- 14    b) Toronto Hydro is unable to provide actual amounts spent on Damage Prevention as of  
15      the end of 3<sup>rd</sup> quarter of 2014 as finalized amounts were not available at the time that  
16      this interrogatory response was prepared. As of the end of the 2<sup>nd</sup> quarter, the actual  
17      amounts totalled \$1.3 million.

## **RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES**

1    **INTERROGATORY 43:**

2    **Reference(s):**           **Exhibit 4A, Tab 2, Schedule 8, p .9**

3

4

5    a) Table 3 shows both the total capital expenditures for 2011 through 2015 and the  
6       Preventative and Predictive Maintenance OM&A budgets for the same period. The  
7       accompanying evidence appears draw a relationship between the increase in the  
8       OM&A budgets and the accompanying increase in the capital budgets. Is THESL  
9       suggesting there a positive correlation – that is an increase in capital budgets is  
10      associated with an increase in OM&A (in this or any other OM&A category)?

11   b) If yes please explain why. Specifically, please address the question as to why  
12      renewal of assets does not lead to lower preventative OM&A (and other) budgets.  
13      Please also explain what capital related activities directly related to capital  
14      expenditures cannot be capitalized.

15   c) Table 3 appears to show that OM&A is in fact inversely related to capital budgets.  
16      That is, it shows an increase in preventative maintenance in 2012 when the capital  
17      budget declined significantly. Please comment.

18   d) Please provide Table 3 so as to show the same categories for 2008 through 2011.

19

20

21    **RESPONSE:**

22    a) The intent of Table 3 referenced in the Interrogatory is solely to show that the OM&A  
23      expenditures of the Work Execution Management and Support program, are  
24      directionally aligned to the size of the combined Capital and Maintenance  
25      expenditures, while the ratio remains consistent in the low 1% range. Toronto Hydro

## **RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES**

1 did not intend to convey any information regarding the correlation between capital  
2 and maintenance programs.

3

4 b) As stated above, the table referenced in sub (a) was not intended to suggest the  
5 existence of any correlation between capital and preventative and predictive  
6 maintenance programs. For further discussion regarding the relationship between  
7 Capital and OM&A spending, please refer to the response to Interrogatory 2B-EP-24.

8

9 c) Exhibit 4A, Tab 2, Schedule 1, page 3 explains the increases and decreases in the  
10 Preventative & Predictive Maintenance Program during the historical period. For  
11 example, the increases in 2012 over 2011 are attributed to increases in the Overhead  
12 Switch Maintenance, Below-Grade Equipment Maintenance, and Customer Location  
13 Maintenance segments. Work that occurs in these segments is not directly related to  
14 a general reduction in the capital program in a given year.

15

16 d) The table below provides the requested capital and maintenance expenditures in  
17 2008-2011. Toronto Hydro is unable to provide the requested historical expenditures  
18 for the Work Execution Management and Support program for the referenced period  
19 due to insufficient granularity in the historical data.

	<b>2008 Actual</b>	<b>2009 Actual</b>	<b>2010 Actual</b>	<b>2011 Actual</b>
Total Capital Expenditures	\$205.7M	\$241.7M	\$381.1M	\$445.5M
Preventative & Predictive Maintenance	\$9.9M	\$11.4M	\$14.2M	\$13.7M

## **RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES**

1 **INTERROGATORY 44:**

2 **Reference(s):** **Exhibit 4A, Tab 2, Schedule 13, page 3**

3

4

- 5 a) Please provide an estimate of the increase/decrease in billing, collection and customer  
6 care costs if THESL were to move all customers to monthly billing.
- 7 b) Please explain what offset in working capital might be expected.
- 8 c) If THESL has not previously undertaken any study of this issue please provide the  
9 best estimate and a general or directional explanation.

10

11

12 **RESPONSE:**

13 a) Costs are projected to increase incrementally over the current operating budget by a  
14 total amount of approximately \$6.1 million. This can be further categorized as an  
15 increase in the costs of Billing of \$4.3 million, costs of Collections of \$0.9 million  
16 and costs of Customer Care of \$0.9 million. In addition, one-time costs to facilitate  
17 the transition are forecasted to be \$3.0 million in capital costs and \$2.2 million in  
18 operating expenditures.

19

20 b) Toronto Hydro estimates the offset in working capital in the amount of approximately  
21 \$1.9 million.

22

23 c) Please see the response to Interrogatory 4A-CCC-34.

## **RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES**

1 **INTERROGATORY 45:**

2 **Reference(s):** **Exhibit 4A, Tab 2, Schedule 13, page 27**

3

4

5 a) Please explain the rationale for “Communications and Public Affairs” as a ratepayer  
6 as opposed to shareholder cost.

7

8

9 **RESPONSE:**

10 The Communications and Public Affairs costs have historically been in Toronto Hydro’s  
11 and other utilities rate recoverable costs, and should continue to be recovered through  
12 rates. The Communications and Public affairs segment performs a number of crucial  
13 functions that allow the utility to:

- 14
- 15 • Keep customers informed and engaged (directly and through mass media) on the  
16 scope of planned and ongoing work performed by the utility, changes to customer  
17 bills stemming from OEB and other decisions, range of services offered by the  
18 utility, and important information pertaining to service outages and estimated  
19 restoration times.
  - 20 • Address the emerging and ongoing concerns of customer groups and other  
21 stakeholders whose plans and/or interests may be affected by Toronto Hydro’s  
22 activities.
  - 23 • Maintain a productive relationship with the City of Toronto on matters affecting  
24 both parties’ planned and ongoing operating activities.
  - 25 • Provide assistance to Toronto Hydro’s most vulnerable customers.

## **RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES**

1 The above-noted examples and other activities performed under the Communications and  
2 Public Affairs reflect the “Customer Service” pillar of Toronto Hydro’s Corporate  
3 Strategy (see Exhibit 1C, Tab 3, Schedule 1) and are in alignment with the OEB’s  
4 Customer Focus outcome under the renewed Regulatory Framework for Electricity  
5 (RRFE). Based on the above considerations, Toronto Hydro submits that the  
6 expenditures associated with this segment continue to be an appropriate ratepayer cost.

**RESPONSES TO VULNERABLE ENERGY CONSUMERS  
 COALITION INTERROGATORIES**

1 **INTERROGATORY 46:**

2 **Reference(s):** **Exhibit 4A, Tab 2, Schedule 17, Appendix A**  
 3 **Exhibit 4A, Tab 2, Schedule 18, pages 1-4**  
 4

- 5 a) Please reconcile the one-time regulatory costs of \$3,543,366 shown in Appendix 2-M  
 6 with \$3,193,366 in one-time costs related to the CIR application (shown in the table  
 7 below)  
 8 b) Please provide a breakdown on the legal fees of \$1,726,047 by type of activity (e.g.,  
 9 hearing, pre-application, etc.).  
 10 c) How many practicing lawyers does THESL currently employ?  
 11

12 **RESPONSE:**

- 13 a) Amounts shown for 2015 on lines 5 and 6 of the top table in Appendix 2-M include  
 14 forecast legal and consulting amounts which are not included as direct one-time CIR  
 15 related costs in the lower table.  
 16  
 17 b) Please refer to the table below for the requested breakdown:

<b>Type of Activity</b>	<b>Cost</b>
<b>Main Application</b>	
Pre-Application	\$454,000
Post-Filing + Oral Hearing	\$620,000
Post Hearing	\$153,000
<b>ICM True-UP</b>	
Pre-Application	\$160,000
Post-Filing + Oral Hearing	\$269,000
Post-Hearing	\$70,000
<b>Total</b>	<b>\$1,726,000</b>

**RESPONSES TO VULNERABLE ENERGY CONSUMERS  
COALITION INTERROGATORIES**

- 1 c) Toronto Hydro currently employs two practicing regulatory lawyers.



## **RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES**

1 **INTERROGATORY 47:**

2 **Reference(s):** **Exhibit 4A, Tab 1, Schedule 1, page 4**

3

4

5 a) Please revise/update Table 1: (Historical,Bridge, Test Year OM&A by Program) to  
6 show in new columns

- 7 • 2014 3<sup>rd</sup> quarter actuals;  
8 • remaining quarter forecast spend.  
9 • 2013 3<sup>rd</sup> quarter results  
10 • any flow through update to 2015 OM&A costs

11

12

13 **RESPONSE:**

14 a) As noted in Exhibit 4A, Tab 1, Schedule 1, page 2, adopting a program-based  
15 approach as per the OEB's July 2013 update of Chapter 2 Filing Requirements entails  
16 a transition period for the utility. Toronto Hydro notes that its work in developing a  
17 meaningful program/Segment OM&A presentation involved a significant amount of  
18 assumptions and complex analytic work (discussed further in the response to  
19 interrogatory 4A-OEBStaff-43), given that Toronto Hydro's internal OM&A tracking  
20 procedures do not fully lend themselves to the approach contemplated by the OEB.

21

22 It is for this reason that Toronto Hydro's quarterly actuals (2013 and 2014) are not  
23 readily available in the requested Table 1 format. The table below represents a best-  
24 effort basis to produce the requested information using Toronto Hydro's departmental  
25 expenditure structure. For further details on the mapping of departments to programs,  
26 please refer to the response to Interrogatory 4A-SIA-31 part c. Moreover, Toronto

## RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES

1 Hydro is not currently in a position to provide Q3 results for 2013, as audited figures  
 2 are not presently available. Accordingly, Toronto Hydro is providing 2014 YTD  
 3 results up to the end of Q2. To enable consistent past year comparison, 2013 Q2 data  
 4 are provided instead of the requested Q3 results, along with the year-end 2014 Bridge  
 5 forecast.

6

7 **Table 1 – 2Q OM&A by Division (\$M)**

Toronto Hydro Department	2013 2nd Quarter Actuals	2014 2nd Quarter Actuals	2014 Bridge
Engineering & Construction	17.4	17.2	35.1
Electric Operations	32.7	33.8	63.0
Fleet and Equipment Services	4.4	5.5	8.4
Facilities Management	12.4	14.2	27.2
Supply Chain Services	4.5	5.4	10.3
Customer Care	19.2	20.9	42.2
Human Resources and Safety	8.0	7.8	15.3
Finance	6.6	8.6	17.0
Information Technology	16.0	15.6	33.4
Rates and Regulatory Affairs	4.0	3.5	6.4
Legal Services	4.2	3.0	5.3
Charitable Donations (LEAP)	0.3	0.3	0.7
Common Costs and Adjustments	0.0	1.0	2.3
Allocations and Recoveries	(11.6)	(11.5)	(19.9)
<b>Total OM&amp;A</b>	<b>118.2</b>	<b>125.4</b>	<b>246.6</b>

## **RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES**

1     **NOTES:**

2     The table above uses assumptions to arrive at the 3Q 2013 and 3Q 2014 OM&A. The  
3     OEB does not require that Toronto Hydro publish quarterly actuals, annual RRR  
4     reconciliations are provided as per the guidelines. Therefore, this quarterly view is  
5     purely prepared on a best-effort basis using assumptions to derive OM&A which is  
6     different than the published Financial Statement OPEX reported externally. Further,  
7     the format above is based on Toronto Hydro's internal departmental view, not the  
8     program view as this view is again not available by quarter at this time.

## **RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES**

1 **INTERROGATORY 48:**

2 **Reference(s):** **Exhibit 4A, Tab 4, Schedule 2, Appendix 2-K**

3 **Exhibit 4A, Tab 4, Schedule 5, page 1**

4

5

6 a) Please update Appendix 2-K and Table 1 (Overtime and Incentive Pay) to show  
7 separately: Union and non-union, Management and Executive (VP and above).

8

9

10 **RESPONSE:**

11 Please refer to Appendix A to this response.

	2011 Actuals	2012 Actuals	2013 Actuals	2014 BRIDGE	2015 TEST
<b>Number of Employees (FTEs including Part-Time)<sup>1</sup></b>					
Executive	9.2	7.4	8.0	6.3	6.0
Management (excluding Executive)	52.7	45.6	47.2	48.2	49.0
Non-Management (Non-Union)	462.4	442.9	458.5	509.3	533.5
Non-Management (Union)	1,212.8	1,104.9	1,013.7	972.8	975.0
Total	1,737.0	1,600.8	1,527.4	1,536.6	1,563.5
<b>Total Salary and Wages (including overtime and incentive pay)</b>					
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
Non-Management (Non-Union)	\$ 48,004,982	\$ 47,222,946	\$ 48,661,644	\$ 54,545,454	\$ 58,152,615
Non-Management (Union)	\$ 117,596,782	\$ 102,500,089	\$ 99,308,906	\$ 97,986,475	\$ 99,602,175
Total	\$ 177,105,689	\$ 160,207,891	\$ 158,887,502	\$ 163,889,738	\$ 169,431,152
<b>Total Benefits (Current + Accrued)</b>					
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
Non-Management (Non-Union)	\$ 15,372,984	\$ 15,506,703	\$ 17,144,667	\$ 18,400,258	\$ 18,485,032
Non-Management (Union)	\$ 38,398,376	\$ 36,651,732	\$ 37,288,451	\$ 34,651,697	\$ 33,794,760
Total	\$ 57,472,066	\$ 55,365,832	\$ 57,930,489	\$ 56,674,344	\$ 55,866,316
<b>Total Compensation (Salary, Wages, &amp; Benefits)</b>					
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
Non-Management (Non-Union)	\$ 63,377,966	\$ 62,729,649	\$ 65,806,311	\$ 72,945,712	\$ 76,637,647
Non-Management (Union)	\$ 155,995,158	\$ 139,151,820	\$ 136,597,357	\$ 132,638,172	\$ 133,396,935
Total	\$ 234,577,755	\$ 215,573,723	\$ 216,817,992	\$ 220,564,082	\$ 225,297,468

## **RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES**

1 **INTERROGATORY 49:**

2 **Reference(s):** **Exhibit 5**

3 **Exhibit 1C, Tab 4, Schedule 7, Appendix A**

4

5

6 a) Please provide the adjusted funds from operations (AFFO)-to-debt ratios for 2012,  
7 2013 and the forecast for 2014.

8 b) Under the 5 year plan please provide THESL's projection for the AFFO/debt ratio for  
9 each year of the plan. Please show your assumptions.

10

11

12 **RESPONSE:**

13 a) Adjusted funds from operations (AFFO)-to-debt ratios are as follows: 15.3% (2012),  
14 15.4% (2013), and 12.3% (2014 forecast). In calculating these ratios, Toronto Hydro  
15 made standard adjustments to financial statement data that management believes  
16 better reflect the underlying economics of certain transactions. See supporting  
17 schedules for adjustments made and detailed calculations provided as Appendix A to  
18 this Schedule.

19

20 b) The projected AFFO/debt ratio for 2015 is 12.3%.

21

22 Toronto Hydro has not calculated the AFFO/debt ratio for 2016-2019 as detailed  
23 plans for those years are not available.

24

## **RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES**

- 1 As noted in the response to part a), Toronto Hydro made certain standard adjustments
- 2 to financial statement data in calculating these ratios. See supporting schedules for
- 3 adjustments made and detailed calculations provided as Appendix A to this Schedule.

## Calculation of FFO for THESL Regulated Operations

Year ended December 31 <i>in thousands of Canadian dollars</i>	Historical 2012 \$	Historical 2013 \$	Bridge 2014 \$	Test 2015 \$
Revenue	2,834,404	3,181,497	3,295,530	3,428,278
Cost of purchased power	(2,275,209)	(2,567,512)	(2,691,734)	(2,751,934)
Operating expenses	(231,949)	(258,416)	(256,627)	(278,084)
<b>EBITDA</b>	<b>327,246</b>	<b>355,569</b>	<b>347,169</b>	<b>398,260</b>
Interest expense:				
Interest Income	(734)	(2,065)	(1,360)	(1,010)
Interest expense	76,672	70,796	66,502	79,551
<b>Net financing charges</b>	<b>75,938</b>	<b>68,731</b>	<b>65,142</b>	<b>78,541</b>
<b>Current tax</b>	<b>6,011</b>	<b>5,265</b>	<b>16,644</b>	<b>13,708</b>
<b>FFO - Regulated Operations</b>	<b>245,297</b>	<b>281,572</b>	<b>265,383</b>	<b>306,011</b>
Operating Leases	15,055	5,990	5,128	5,291
Post-retirement benefits	(1,088)	(3,244)	(4,441)	(4,561)
Capitalized Interest	(994)	(1,306)	(2,651)	(2,576)
Asset Retirement Obligations	65	(114)	-	-
<b>Adjusted FFO - Regulated Operations</b>	<b>258,335</b>	<b>282,898</b>	<b>263,418</b>	<b>304,165</b>
Notes Payable	1,470,249	1,493,199	1,692,507	1,931,505
Other Financing	-	150,000	263,344	338,180
<b>Total Debt</b>	<b>1,470,249</b>	<b>1,643,199</b>	<b>1,955,851</b>	<b>2,269,685</b>
Post-retirement benefits	253,890	238,792	243,040	251,561
Tax adjustment	(67,281)	(63,280)	(64,406)	(66,664)
<b>Net Post-retirement benefits</b>	<b>186,609</b>	<b>175,512</b>	<b>178,634</b>	<b>184,897</b>
Operating Leases	29,435	17,515	12,566	7,260
Asset Retirement Obligations	3,678	4,592	1,088	1,056
<b>Adjusted Debt</b>	<b>1,689,971</b>	<b>1,840,818</b>	<b>2,148,140</b>	<b>2,462,898</b>
<b>FFO/Debt Ratio</b>	16.7%	17.1%	13.6%	13.5%
<b>A-FFO/Adjusted Debt Ratio</b>	15.3%	15.4%	12.3%	12.3%



## **RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES**

1 **INTERROGATORY 50:**

2 **Reference(s):** **Exhibit 7, Tab 1, Schedule 1, page2**

3

4

5 a) What is the basic service allowance that is funded through rates (per lines 15-17)?  
6 Also, please indicate where in THESL's Conditions of Service the basic service  
7 allowance is set out and established as a common standard for all customer classes  
8 (except Street Lighting and USL).

9 b) The Application states that the cost of "services" is directly collected from the USL  
10 and Street Lighting classes. Please confirm that this "direct collection" is by way of a  
11 customer capital contribution as opposed to via a direct allocation in the Cost  
12 Allocation model.

13

14

15 **RESPONSE:**

16 a) Please see Exhibit 2B, Section E5.2, page 12. Please also refer to Table 5 (pages 89  
17 to 95) of Toronto Hydro's Condition of Service, provided in response to 1A-BOMA-  
18 9.

19

20 b) Confirmed, the cost of "services" for the USL and Street Lighting rate classes is  
21 collected through a capital contribution.

## **RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES**

1    **INTERROGATORY 51:**

2    **Reference(s):**           **Exhibit 7, Tab 1, Schedule 3, pp. 2-5**

3

4

- 5    a) Please confirm the date of the study for Toronto Hydro referenced in Table 1.
- 6    b) Please confirm that the Toronto Hydro referenced in Table 1 is pre-amalgamation.
- 7    c) What was the kW/customer capability for the Toronto Hydro minimum system  
8       referenced in Table 1?
- 9    d) Why has Toronto Hydro not undertaken to complete (either on its own or with the aid  
10       of an appropriate consultant) a new THESL-specific minimum system study?
- 11   e) Please confirm that at page 3, line 5 the text should read “greater than 60 customers  
12       per kilometer”.
- 13   f) What is the impact on the status quo revenue to cost ratios of using the minimum  
14       system definition as proposed by THESL as opposed to using the OEB Cost  
15       Allocation model values? As part of the response, please provide a copy of the CA  
16       model with the OEB prescribed value for density.

17

18

19    **RESPONSE:**

20    a) The study for Toronto Hydro referenced in Table 1 was completed in 1999.

21

22    b) The study was completed for the post amalgamation Toronto Hydro.

23

24    c) The minimum load used was a 100-Watt light bulb.

25

## RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES

- 1 d) The undertaking of a minimum system study would likely be a significant expense for  
 2 Toronto Hydro. It is clear that Toronto Hydro’s density is well above the OEB  
 3 model’s default threshold for high density, and the since the current thresholds were  
 4 based on evidence provided as part of the initial Cost Allocation consultation,  
 5 Toronto Hydro has used the most relevant information contained in that study as a  
 6 value for the density factors.  
 7
- 8 e) Confirmed, the text should read “greater than 60 customers per kilometer”.  
 9
- 10 f) The following table compares the revenue to cost ratios using the OEB’s default high-  
 11 density input compared to the ratios as filed by Toronto Hydro. An electronic version  
 12 of the CA model is being provided as IR\_7\_VECC\_51\_CAModel\_20141105.xlsx.

	Residential	Competitive Sector Multi-Unit Residential	GS<50	GS - 50 to 999	GS - 1000 to 4999	Large Use >5MV	Street Light	Unmetered Scattered Load
Rev to Cost Ratio (OEB value for density)	89%	96%	95%	127%	108%	100%	90%	81%
Rev to Cost Ratio (THESL value for density)	93%	107%	90%	118%	101%	95%	105%	90%

## RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES

1 **INTERROGATORY 52:**

2 **Reference(s):** **Exhibit 7, Tab 1, Schedule 3, p. 5**

3

4

5 a) Please provide a schedule that itemizes each of directions from the OEB's EB-2010-  
6 0142 Decision that THESL considered (per lines 8-10) and, for each, describe why no  
7 revisions to its cost allocation model were required.

8 b) If not addressed in part (a), please indicate how THESL has addressed the following  
9 direction from the OEB's EB-2010-0142 Decision (page 13):

10

11 The Board recognizes the submission by the SSMWG that the composite allocators in  
12 the model should be adjusted to ensure that the applicable costs are allocated to the  
13 Quadlogic class appropriately. In particular, this would mean that the composite  
14 allocators based on Net Fixed Assets (NFA and NFA ECC) would need to be  
15 increased to the Quadlogic class if its meter costs were to be directly allocated  
16 using the Board's current model. Similarly, the composite allocators based on  
17 operating and maintenance costs (O&M and OM&A) would need to be increased if  
18 there were direct allocation of certain other costs elsewhere in this Decision.

19

20 While recognizing that the lump sum adjustment of \$400,000 proposed by the  
21 SSMWG is correct directionally, the Board finds that changes to the cost allocation  
22 model would be required to yield a reliable adjustment to the composite allocators  
23 and the Board does not consider it appropriate to make such changes in this  
24 proceeding. The Board would consider it appropriate for changes of this kind to be  
25 considered during the next review of the cost allocation model (emphasis added).

26

Once the necessary changes to the cost allocation model have been made, the

## **RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES**

1 approach proposed by the SSMWG can be considered in a subsequent proceeding.  
2 While a new rate class is being created in this proceeding, the Board is of the view  
3 that the development of this new rate class will be an iterative process that is likely to  
4 span more than one proceeding. The Board accordingly directs that THESL will not  
5 alter the cost allocation model's calculation of the composite allocators for the  
6 purpose of this proceeding.

7

8 c) If not addressed in part (a), please indicate how THESL has addressed the following  
9 direction from the OEB's EB-2010-0142 Decision (page 15)

10

11 The Board notes that THESL agreed that the appropriate weighting factor should be  
12 0.064 and also notes that no empirically based alternatives were presented. The  
13 Board therefore finds that THESL should use a service drop factor of 0.064 for 2012,  
14 as proposed by VECC and the associated logic to derive this allocation factor when  
15 the cost allocation study is next updated.

16

17 Specifically, the Board directs THESL to derive the service drop allocation factor  
18 when the cost allocation study is next updated by taking the weighting factor of 10  
19 used for services for the GS 50- 599 and GS 1,000-4,999 classes divided by the  
20 average number of Quadlogic customers per building. (emphasis added)

21

22 d) If not addressed in part (a), please indicate how THESL has addressed the following  
23 direction from the OEB's EB-2010-0142 Decision (page 18)

24

25 The Board expects that THESL will incorporate the distinction between the  
26 secondary and primary systems in future cost allocation studies, and that it will

## **RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES**

1 include the appropriate proportions within each class where some customers are  
2 served from the secondary system and the rest are served from the primary system.

3  
4

5 **RESPONSE:**

6 a) The full paragraph in Toronto Hydro's evidence which is referenced by this  
7 interrogatory reads as follows:

8

9 In its EB-2010-0142 decision with respect to the new CSMUR  
10 class, the OEB required the utility to review each of the  
11 assumptions set out in the decision and note any that may require  
12 revision at the time of its next Cost of Service filing. Toronto  
13 Hydro has reviewed the directions from that decision, and has not  
14 determined a need for any revisions. Allocations to the CSMUR  
15 class have been based on the same assumptions as set out in the  
16 OEB's decision

17

18 That paragraph references the OEB's Decision in EB-2010-0142 (page 29) where the  
19 OEB stated:

20

21 The Board therefore directs THESL to review each of the  
22 assumptions set out in the Decision and Order when its cost  
23 allocation study is refreshed for its next COS application. THESL is  
24 directed to note any assumptions that would require revisions and  
25 provide explanations for any such revisions at that time.

26

## **RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES**

1 Toronto Hydro's evidence clearly states that Toronto Hydro has reviewed the  
2 current OEB's CAM and has not seen any need to diverge from the model to  
3 properly incorporate the findings on the CSMUR class for the 2015 filing.  
4

5 b) Toronto Hydro's interpretation of the referenced finding was that the OEB intended  
6 to review the Cost Allocation model and its logic as part of a generic review of the  
7 model. To Toronto Hydro's knowledge, this particular component of the model has  
8 not been altered by the OEB, and Toronto Hydro (as well as other LDCs) continues to  
9 rely on the current version.

10

11 c) For this filing, Toronto Hydro has used the same methodology as directed by the  
12 OEB to derive the CSMUR service allocations.

13

14 d) A more complete version of the OEB findings in the EB-2010-0142 Decision is as  
15 follows (page 18):

16

17 The Board is of the view that in the absence of a move to more  
18 detailed based asset-based cost allocation, which the Board does not  
19 presently plan to adopt; it would not be possible to appropriately  
20 allocate such costs.

21

22 The Board directs that the secondary load of the Quadlogic class will  
23 be the same as the primary load.

24

25 The Board expects that THESL will incorporate the distinction  
26 between the secondary and primary systems in future cost allocation

**RESPONSES TO VULNERABLE ENERGY CONSUMERS  
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1 studies, and that it will include the appropriate proportions within  
2 each class where some customers are served from the secondary  
3 system and the rest are served from the primary system.

4  
5 Toronto Hydro identified three out of 215 buildings in the CSMUR class that served  
6 from the secondary system. The 123 units in these three buildings make up 0.2% of  
7 the 56,966 units in the CSMUR rate classes. Since this figure represents an  
8 insignificant proportion of the CSMUR units served, Toronto Hydro maintained the  
9 OEB's direction to allocate the secondary load the same as the primary load in the  
10 2015 COS model.



## **RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES**

1 **INTERROGATORY 53:**

2 **Reference(s):** **Exhibit 7**

3 **Cost Allocation Model, Sheet I9 – Direct Allocation**

4

5

6 a) Please explain how the costs to be directly allocated to Street Light and USL for each  
7 of the following USOA accounts were established:

8 i. 1830

9 ii. 1835

10 iii. 1840

11 iv. 1845

12 v. 1850

13 vi. 1860

14 b) Given there are asset costs for Poles and Conductors (#1830 & #1835), Line  
15 Transformers (#1850) and Meters (#1860) directly allocated to Street Light and USL,  
16 why are there no directly allocated costs to these classes for the following associated  
17 expense accounts:

18 i. 5020

19 ii. 5025

20 iii. 5035

21 iv. 5040

22 v. 5045

23 vi. 5055

24 vii. 5065

25 viii. 5125

26 ix. 5130

## **RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES**

- 1       x.    5135
- 2       xi.   5150
- 3       xii.   5160
- 4       xiii.  5175
- 5   c) Given there is no direct allocation from the “expenses” accounts noted in part (b) to
- 6       Street Lighting and USL, are the directly allocated asset costs for Street Light and
- 7       USL included in the allocation bases for these accounts where applicable?
- 8   d) Please explain basis for the costs/credits directly allocated to Street Light and USL
- 9       for accounts #5085 and #5096.
- 10   e) Are the asset costs of the actual Street Light devices included in THESL’s costs? If
- 11       so, in which USOA account are they recorded and directly allocated?
- 12   f) How were the Meter and Meter Reading costs that are directly allocated to the
- 13       CSMUR class established?
- 14   g) How were the asset-related costs that were directly allocated to the GS>50-999;
- 15       GS1,000-4999 and LU classes for accounts #1840 and #1845 determined?
- 16   h) Why are there no costs from the expense accounts #5145 and #5150 directly allocated
- 17       to the GS>50-999; GS1,000-4999 and LU classes – given there are associated asset
- 18       costs that are directly allocated?
- 19   i) Given there is no direct allocation from these two accounts (i.e., #5145 and #5150)
- 20       for these customer classes, are the directly allocated asset costs for GS>50-999;
- 21       GS1,000-4999 and LU classes included in the allocation base for accounts #1840 and
- 22       #1845 where applicable?
- 23   j) Do the assets that are directly allocated attract a share of the amortization associated
- 24       with General Plant to customer classes involved? If so, please indicate how this
- 25       accomplished in the Cost Allocation model.
- 26

## RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES

1   **RESPONSE:**

- 2   a) Costs directly allocated for the noted accounts were established based on Toronto  
 3       Hydro’s records for these assets.  
 4
- 5   b) Expense items for Streetlighting were rolled into accounts 5085, 5096 and 5145 for  
 6       direct allocation.  
 7
- 8   c) Please see response to part (b).  
 9
- 10   d) Expense costs directly related to the incremental Street Light assets were rolled into  
 11       accounts 5085 and 5096 as noted in the response to part (b).  
 12

13       Upon further review, Toronto Hydro has identified an incorrect calculation for the  
 14       amounts directly assigned in account 5085. The correct amount should be \$180,242.  
 15       The changes in the revenue to cost ratios as a result of this correction are shown in the  
 16       table below:

	Residential	Competitive Sector Multi-Unit Residential	GS<50	GS - 50 to 999	GS - 1000 to 4999	Large Use >5MV	Street Light	Unmetered Scattered Load
Rev TO Cost - Profile	93.4%	106.7%	89.9%	117.6%	100.9%	95.2%	105.5%	89.8%
Rev TO Cost- Revised	93.8%	106.9%	90.4%	118.3%	101.4%	95.6%	92.2%	86.5%

## **RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES**

1 Although, the Streetlighting revenue to cost ratio has changed, it does not change the  
2 proposed 2015 Streetlighting rates since Toronto Hydro has proposed to hold these  
3 rates constant at 2014 levels. Changes to the revenue to cost ratios for the remaining  
4 classes are minor.

5

6 e) No. In accordance with the OEB's ruling, the Street Light "devices" are not to be  
7 included in Toronto Hydro's costs.

8

9 f) Rate class meter capital costs for the CSMUR class are calculated as the number of  
10 meters in the class multiplied by the rate class cost per meter.

11

12 Meter reading costs for the CSMUR class are calculated as the meter reading cost per  
13 meter multiplied by the number of meters multiplied by the number of reads. Upon  
14 further review, Toronto Hydro discovered an incorrect calculation of this amount.

15 The correction results in a reduction in directly allocated CSMUR meter reading costs  
16 from \$1,115,520 to \$659,338 (a difference of \$456K) which would increase the  
17 CSMUR revenue to cost ratio from 106.7% to 110.2%.

18

19 g) The directly assigned asset related costs to the GS>50-999, GS1,000-4999 and LU  
20 classes for accounts 1840 and 1845 are based on the estimated replacement costs for  
21 the dedicated feeders serving these customers. The ratio of these costs to the  
22 replacement cost of all feeders is then applied to the 2015 amounts in accounts 1840  
23 and 1845 to establish the direct assignment values.

24

25 h) All costs associated with underground maintenance are grouped into account 5150.

26

## **RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES**

1       Upon review, Toronto Hydro has identified amounts, totalling \$253,274, for account  
2       5150 which should be directly allocated to the GS > 50-999 kW, GS 1,000-4999 kW  
3       and LU rate classes. Correcting for this amount has an immaterial impact on the  
4       revenue to cost ratios.

6

7       i) Please see response to part (h) above.

8

9       j) Based on Toronto Hydro's understanding of the CAM logic, it does not appear that  
10       the assets that are directly allocated attract a proportional share of the amortization  
11       associated with General Plant.

## **RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES**

1 **INTERROGATORY 54:**

2 **Reference(s):** **Exhibit 7, Tab 1, Schedule 2, page 7 (corrected)**  
3 **Cost Allocation Model, Tab I6.2-Customer Data**

4

5

6 a) Please explain the source of the 1.8:1 ratio of devices to connections used in the Cost  
7 Allocation model.

8 b) Please explain how this value was established and whether/how it has changed from  
9 previous Cost Allocation results filed by THESL.

10

11

12 **RESPONSE:**

13 a) The 1.8:1 ratio of devices to connections is based on information provided as part of  
14 the initial Cost Allocation filing in 2006 (EB-2006-0247). Data samples on devices  
15 and relays across Toronto Hydro's operating areas were used to derive the 1.8:1 ratio  
16 for the system as a whole. The ratio takes into account that some streetlight devices  
17 are connected in a daisy chain configuration and others are directly connected. This  
18 value has been used in each of Toronto Hydro's cost of service based rate filings  
19 since 2008.

20

21 b) Please see response to part (a).

**RESPONSES TO VULNERABLE ENERGY CONSUMERS  
 COALITION INTERROGATORIES**

1 **INTERROGATORY 55:**

2 **Reference(s):** **Exhibit 7, Tab 2, Schedule 1, pp. 2-3**

3  
4

5 a) Please explain how the revenue deficiency from reducing the CSMUR R/C ratio to  
 6 100% and holding the Street Light rates at 2014 levels was assigned to the remaining  
 7 customer classes in order to yield the results set out in parts (B) and (C).

8 b) Please provide an alternative version of parts (B) and (C) where the R/C ratio for  
 9 Street Light is maintained at 104%.

10  
11

12 **RESPONSE:**

13 a) The allocator for redistribution of revenue deficiency is the revenue shortfall from the  
 14 rate classes that are below a 100% Revenue to Cost Ratio in the OEB's Cost  
 15 Allocation Model.

	<b>Revenue Shortfall from COS Model</b>	<b>% of Total Shortfall</b>
RESIDENTIAL	\$(19,911,971)	62%
GS < 50 kW	(10,408,329)	32%
LARGE USER	(1,537,315)	5%
SMALL SCATTER LOAD	(433,423)	1%
<b>Total</b>	<b>(32,291,040)</b>	<b>100%</b>

## **RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES**

1       The revenue deficiency from maintaining the CSMUR class at 100% and holding  
2       Street lighting rates constant – an amount of \$4.1M – is redistributed based on the  
3       class percentages derived from the above table.

	<b>Rev Recovery</b>
RESIDENTIAL	\$2,520,965
GS < 50 kW	\$1,317,751
LARGE USER	\$194,633
SMALL SCATTER LOAD	\$54,874
	<hr/> <b>\$4,088,222</b>

4       b) An alternative version of Tables (B) and (C), where the revenue to cost ratio for the  
5       Street Lighting class is maintained at 104%, is attached as Appendix A to this  
6       response.



## 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%	\$ 300,574,607	42.50%
GS < 50 kW	\$ 74,280,097	13.55%	\$ 103,048,743	14.57%
GS 50-999 kW	\$ 136,457,707	24.90%	\$ 165,834,091	23.45%
GS 1000-4999 kW	\$ 38,493,073	7.02%	\$ 58,526,202	8.27%
Large User	\$ 20,035,803	3.66%	\$ 32,008,512	4.53%
Street Lighting	\$ 17,331,487	3.16%	\$ 22,419,560	3.17%
Unmetered Scattered Load (USL)	\$ 4,627,832	0.84%	\$ 4,253,100	0.60%
Competitive Sector Multi-Unit Residential (New Rate Class in 2013)		0.00%	\$ 20,618,388	2.92%
		0.00%		0.00%
Embedded distributor class		0.00%		0.00%
<b>Total</b>	<b>\$ 548,065,426</b>	<b>100.00%</b>	<b>\$ 707,283,203</b>	<b>100.00%</b>

### 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	L.F. X current approved rates X	LF X proposed rates	Miscellaneous Revenue
Residential	\$ 214,465,673	\$ 255,976,588	\$ 262,655,243	\$ 19,071,920
GS < 50 kW	\$ 69,430,402	\$ 82,869,007	\$ 85,242,953	\$ 7,953,908
GS 50-999 kW	\$ 158,177,191	\$ 188,793,186	\$ 188,618,199	\$ 6,383,816
GS 1000-4999 kW	\$ 52,894,930	\$ 63,133,011	\$ 58,138,327	\$ 897,088
Large User	\$ 27,857,584	\$ 33,249,560	\$ 30,233,172	\$ 320,212
Street Lighting	\$ 12,284,580	\$ 14,662,323	\$ 14,646,487	\$ 8,660,640
Unmetered Scattered Load (USL)	\$ 2,673,863	\$ 3,191,403	\$ 3,284,569	\$ 558,279
Competitive Sector Multi-Unit Residential (New Rate)	\$ 17,001,339	\$ 20,292,034	\$ 19,348,161	\$ 1,270,227
Embedded distributor class				
<b>Total</b>	\$ 554,785,562	\$ 662,167,112	\$ 662,167,112	\$ 45,116,090

**Notes:**

- 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 Transformer Ownership Allowance. Exclude revenue from rate adders and rate riders.
- Columns 7C and 7D - Column total in each column should equal the Base Revenue Requirement
- 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.
- 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	Status Quo Ratios	Proposed Ratios	Policy Range
	Most Recent Year: 2011	$(7C + 7E) / (7A)$	$(7D + 7E) / (7A)$	
	%	%	%	%
Residential	89%	92	94	85 - 115
GS < 50 kW	97%	88	90	80 - 120
GS 50-999 kW	118%	118	118	80 - 120
GS 1000-4999 kW	124%	109	101	80 - 120
Large User	116%	105	95	85 - 115
Street Lighting	71%	104	104	70 - 120
Unmetered Scattered Load (USL)	82%	88	90	80 - 120
Competitive Sector Multi-Unit Residential (New Rate C		105	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

**D) Proposed Revenue-to-Cost Ratios**

Class	Proposed Revenue-to-Cost Ratios			Policy Range
	0	1	2	
	%	%	%	%
Residential	94			85 - 115
GS < 50 kW	90			80 - 120
GS 50-999 kW	118			80 - 120
GS 1000-4999 kW	101			80 - 120
Large User	95			85 - 115
Street Lighting	104			70 - 120
Sentinel Lighting				80 - 120
Unmetered Scattered Load (USL)	90			80 - 120
Competitive Sector Multi-Unit Residential (New Rate)	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'.

**RESPONSES TO VULNERABLE ENERGY CONSUMERS  
COALITION INTERROGATORIES**

1 **INTERROGATORY 56:**

2 **Reference(s):** **Exhibit 8, Tab 1, Schedule 1, pages 1 and 5**

3

4

5 a) Please provide a schedule that sets out the calculation of the current fixed variable  
6 split for each customer class (i.e., based on 2014 rates and the 2015 load forecast).

7

8

9 **RESPONSE:**

10 a) Please see Exhibit 8, Tab 1, Schedule 2, page 1.

**RESPONSES TO VULNERABLE ENERGY CONSUMERS  
 COALITION INTERROGATORIES**

1 **INTERROGATORY 57:**

2 **Reference(s):** Exhibit 8, Tab 1, Schedule 1, p. 6

3  
4

- 5 a) Please confirm that the CA Model values set out in Table 2 are “monthly values”  
 6 whereas the THESL current and proposed rates are based on “30 days”.
- 7 b) If part (a) is confirmed, please restate Table 2 with the CA model values converted to  
 8 their 30 day equivalent.

9  
10

11 **RESPONSE:**

- 12 a) Confirmed. The CA Model (“CAM”) values in Table 2 are “monthly values”  
 13 whereas Toronto Hydro’s current and proposed rates are based on “30 days”.
- 14
- 15 b) The table below provides an update to Table 2 with CAM values converted to their 30  
 16 days equivalent.

	Residential	CSMUR	GS<50 kW	GS 50- 999 kW	GS 1000- 4999 kW	Large Use	Streetlighting	USL
CA Model Floor	4.14	3.35	13.48	42.21	78.97	-38.40	0.24	9.41
CA Model Ceiling	19.14	9.24	31.14	84.39	238.25	203.48	10.60	19.15
Current (2014)	18.63	17.35	24.8	36.29	700.68	3,071.47	1.32	4.94
Proposed (2015)	22.94	19.74	30.71	44.1	839.98	3,701.04	1.32	6.13

## **RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES**

1 **INTERROGATORY 58:**

2 **Reference(s):** **Exhibit 8, Tab 1, Schedule 1, pp. 4-5**

3 **City of Hamilton Motions Re: Streetlighting Rates as filed in**  
4 **EB-2013-0416 and EB-2014-0002**

5

6

7 a) Please comment on the similarities/differences between THESL's proposal regarding  
8 Streetlight rates and the recent requests by the City of Hamilton as filed in its motions  
9 in the Hydro One Networks' EB-2013-0416) and Horizon's (EB-2014-0002) 2015-  
10 2019 rate application proceedings.

11 b) Given the Board's disposition of the City of Hamilton motions in these proceedings,  
12 does THESL consider its proposal to "freeze" Streetlighting rates subject to the  
13 completion of the Board's EB-2012-0383 process to be still be appropriate? If so,  
14 why?

15

16 **RESPONSE:**

17 a) and b)

18 Toronto Hydro proposes a "final" rate for 2015 for the Streetlighting class, and  
19 requests that this final rate be the same as the current 2014 rate for the Streetlighting  
20 class. As noted in Exhibit 8, Tab 1, Schedule 1, pages 5, with 2015 rates at the same  
21 level as 2014, the Streetlighting class revenue to cost ratio is well within the OEB's  
22 guideline range for this class. Toronto Hydro proposes that if any directives arising  
23 from the OEB's consultation on the device to connection issue occur before the  
24 conclusion of the current hearing, than those directives would be incorporated in  
25 determining final rates for this class. If the conclusion of that consultation occurs

**RESPONSES TO VULNERABLE ENERGY CONSUMERS  
COALITION INTERROGATORIES**

- 1 after the conclusion of Toronto Hydro's current application, the proposed rates would
- 2 be considered final for 2015.



## **RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES**

1 **INTERROGATORY 59:**

2 **Reference(s):** **Exhibit 8, Tab 1, Schedule 1, p. 7**

3 **Exhibit 8, Tab 3, Schedule 3, p. 7**

4

5

6 a) Schedule 1 states (lines 13-14) that the Standby rate is a three-part charge that  
7 consists of a monthly administration charge, a fixed monthly charge and a volumetric  
8 rate. However, Schedule 3 only includes two charges: a monthly service charge and  
9 a volumetric rate. Please reconcile.

10 b) If a customer has a 1,500 kW generator, normally has a monthly peak load of 500 kW  
11 on the THESL system when the generator is operating (i.e., total plant peak load is  
12 2,000 kW) and its average monthly peak load on THESL's system (taking into  
13 account standby requirements) is 900 kW please address the following:

14 i) To which customer class would the customer be assigned (GS 50-999 or  
15 GS1,000-4,999)?

16 ii) What would be the contracted level of standby power?

17 iii) How would THESL determine when Standby power was required/utilized?

18 iv) What Standby volumetric rate would be applicable in those months when Standby  
19 power is not provided (i.e. the GS 50-999 or the GS 1,000-4,999 volumetric  
20 rate)?

21 v) If the customer's peak demand in a given month was 1,200 kW, would the  
22 volumetric Standby rate be applied and, if so, to what volume of kW would it be  
23 applied?

24 vi) Is the monthly Standby Service Charge applied even in months when Standby  
25 Power is provided?

26 c) Please explain why Standby volumes are not subject to any of the following:

## **RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES**

- 1 i) Rate Riders as applicable to other classes  
2 ii) RTSRs  
3 iii) Regulatory Charges (i.e., RRRP and Wholesale Market Service rates)  
4  
5

6 **RESPONSE:**

- 7 a) In a situation where a customer with co-generation facilities does not draw on the  
8 standby facilities (i.e., the co-generation unit is operational all month and fully  
9 displaces a customer's monthly load requirement) the standby charges include: a  
10 monthly fixed charge (from the standard rate class tariff), the monthly Standby  
11 Service Charge, and the appropriate variable standby rate.  
12  
13 b)  
14 i) The customer would be classed into the GS 1,000-4,999 rate class based on  
15 anticipated load in the absence of generation.  
16  
17 ii) The default contract level of standby power would be 1,500 kW (name plate value  
18 on the generator) however the customer has the option of selecting 0 to 1,500 kW  
19 based on their unique standby power requirements as part of a contract.  
20  
21 iii) Monthly customer meter readings are used to establish if the standby distribution  
22 facility reserved for their usage was utilized. When a generator is down for  
23 scheduled or unscheduled maintenance, there is an obvious spike in the demand  
24 recorded on the meter, which implies that the standby facilities were utilized for  
25 that month.  
26

## **RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES**

- 1       iv) The standby volumetric rate that would be applicable in those months when  
2             Standby power is not provided would be the GS 1,000-4,999 volumetric rate.  
3
- 4       v) Generally, installed co-generation facilities are expected to run 100% of the name  
5             plate values. If the customer's peak demand in this month was 1,200 kW (when it  
6             is normally 500 kW – all things being equal), Toronto Hydro would assume that  
7             the co-generation was not operational for at least an hour, the displaced load  
8             contributed to the customer's billed demand, and the customer was able to shed  
9             some load to avoid the expected 2,000 kW (co-generation capacity of 1,500 kW  
10            plus 500 kW normal load). In this situation, the volumetric Standby rate would  
11            not be applied.
- 12
- 13       vi) Yes, the monthly Standby Service Charge is applied in months when Standby  
14             Power is provided.
- 15
- 16       c) Given that these standby rates were interim and additional regulatory charges (rate  
17             riders, RTSRs and other regulatory charges) were not part of the initial submission in  
18             2005, Toronto Hydro does not believe that the OEB's interim approval includes the  
19             application of these additional charges to standby load.

## **RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES**

1 **INTERROGATORY 60:**

2 **Reference(s):** **Exhibit 8, Tab 1, Schedule, page 8 (lines 1-5)**

3

4

5 a) Please provide a schedule that sets out, by year, the Standby Power revenues that  
6 THESL has collected based on “interim rates”.

7 b) In the same schedule please also include the total revenues collected from customers  
8 with Standby service in each of these years.

9

10

11 **RESPONSE:**

12 a) Because the 2005 to 2009 billing data have been archived, it would require significant  
13 effort and time to extract the requested details. However, Toronto Hydro notes that as  
14 part of its response to interrogatory 3-VECC-35, it has provided a table with the  
15 revenue information covering the 2010 to 2013 calendar years.

16

17 b) Please see response to part (a), and refer to Toronto Hydro’s response to interrogatory  
18 3-VECC-35.

## **RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES**

1 **INTERROGATORY 61:**

2 **Reference(s):** **Exhibit 8**

3 **Tab 1, Schedule 1, pages 11-12**

4

5

6 a) Please provide an update on the status of THESL's evaluation of its historic line  
7 losses and its compliance with the EB-2012-0064 Settlement Agreement.

8

9

10 **RESPONSE:**

11 Toronto Hydro has made progress in its approach to evaluate historic line losses.

12 However, the quantification of the impact to Account 1588 RSVA Power has not been  
13 completed at the present time. Toronto Hydro intends to file the updated evidence as  
14 soon as it is available.

## **RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES**

1 **INTERROGATORY 62:**

2 **Reference(s):** **Exhibit 8, Tab 1, Schedule 1, p. 14**

3

4

5 Preamble:

6 By letter dated September 18, 2014 the Board made the following comments:

7 The other proposed policy amendment considered by the working group was the  
8 elimination of the effect of the half year rule on test year capital additions for the  
9 IR years. The Board intends to do further analysis on this issue before  
10 determining next steps. Accordingly, this ACM Report is limited to the  
11 establishment of the ACM and the refinement of the ICM criteria.

12

13 a) In view of the Board's decision that further analysis is required on the issue of  
14 eliminating the ½ year rule on test year capital additions, is THESL's request for  
15 relief as part of its current Application still appropriate? If so, why?

16

17

18 **RESPONSE:**

19 Toronto Hydro's request for relief relates to operation of the ICM model during the 2012-  
20 2014 period for Toronto Hydro. While Toronto Hydro believes the comments quoted  
21 above indicate the OEB's acknowledgement of the issue, Toronto Hydro does not believe  
22 that analysis contemplated by the OEB for future ACM and ICM criteria prevents the  
23 OEB from determining the issue in this application based on the evidence provided in  
24 Exhibit 8, Tab 1, Schedule 1.

## **RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES**

1 **INTERROGATORY 63:**

2 **Reference(s):** **Exhibit 8, Tab 2, Schedule 1, page 3**

3

4

5 a) Based on THESL's proposals (per lines 3-22), under what circumstances and with  
6 what frequency will THESL provide account history to its customers without a  
7 charge?

8

9

10 **RESPONSE:**

11 Toronto Hydro proposes to charge customers for any formal account history request  
12 which would involve extensive data gathering or which would require efforts to  
13 summarize the data for the customers' end use. Toronto Hydro would continue not to  
14 charge for any limited scope requests that do not require extensive data gathering or that  
15 can be completed with relative ease.

16

17 Toronto Hydro also notes that as an alternative, all its residential customers can continue  
18 to access their account history information free of charge through Toronto Hydro's  
19 customer web portal.

## **RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES**

1 **INTERROGATORY 64:**

2 **Reference(s):** **Exhibit 8, Tab 2, Schedule 1, pages 3-4**

3

4

5 a) Given that THESL is proposing to “charge” customers for missed appointments, is  
6 THESL willing to compensate (i.e. pay customers) in the event that its crews fail to  
7 attend at an arranged appointment time? If not, why not?

8 b) When THESL makes an appointment, how broad is the window for the appointment  
9 time?

10

11

12 **RESPONSE:**

13 a) Toronto Hydro does not believe it would be appropriate to reimburse customers for  
14 appointments missed by its crews. Toronto Hydro is subject to various rules and  
15 regulations governing appointment scheduling, notification, and rescheduling. As an  
16 example, Toronto Hydro must schedule an appointment within a five-day window  
17 (Distribution System Code, s.7.3), must attend the appointment within a four-hour  
18 window (Distribution System Code, s.7.4), and must notify the customer in advance  
19 of the appointment if the appointment is going to be missed (Distribution System  
20 Code, s.7.5).

21

22 For greater clarity, this charge would only apply to missed appointments when the  
23 customer agreed to a specific appointment date and time. It would not apply to  
24 appointments that were cancelled by the customer in advance of the appointment  
25 date.

26



## **RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES**

- 1 b) The window of time for an appointment varies depending on the service being  
2 provided and the circumstances of when the appointment is made (e.g., whether well  
3 in advance of an appointment date or shortly before). In all cases, Toronto Hydro  
4 offers appointments in windows no broader than four hours (in accordance with s.7.4  
5 of the Distribution System Code), but aims to offer more specific windows of time  
6 when this is possible.

## **RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES**

1 **INTERROGATORY 65:**

2 **Reference(s):** **Exhibit 8, Tab 2, Schedule 1, Appendix B**

3

4

5 a) At page 6, the Application states that both THESL and telecommunication users can  
6 use the clearance space for their equipment (emphasis added). Please clarify this  
7 statement – can either party actually use this space on the pole or must it remain  
8 unused in order to provide appropriate clearance.

9

10

11 **RESPONSE:**

12 The “clearance space” is defined as the space on the pole from the ground level to the  
13 “communication space”. While this space is required to be clear of hanging wireline and  
14 other obstructive attachments (hence “clearance”), it can and is used by both Toronto  
15 Hydro and other attachers to locate supporting wiring and equipment. For example,  
16 Toronto Hydro would run wiring inside conduits along this space whenever transitioning  
17 from an overhead to an underground service, or vice versa. Similarly, telecommunication  
18 attachers occasionally locate supporting communication equipment (e.g., amplifier units)  
19 within this space. Those attachers may also run grounding wires from their equipment in  
20 the “communication space” along this “clearance” length of the pole.

**RESPONSES TO VULNERABLE ENERGY CONSUMERS  
 COALITION INTERROGATORIES**

1 **INTERROGATORY 66:**

2 **Reference(s):** **Exhibit 9, Tab 2, Schedule 5, pages 4-5**

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 13

- a) What is the source of the actual historical CDM savings used in the regression analysis (per page 3, line 10)?
- b) Are the historical values used for first year’s impact of CDM programs: i) “annualized values” (as reported by the OPA) or ii) estimates of the actual impact in the first year of implementation?
- c) Please complete the following chart based on actual (annualized) net CDM savings and provide the relevant references to the sources for the data used.

Program Year	Annualized CDM Impact (Net) by Calendar Year (MWh)							
	2006	2007	2008	2009	2010	2011	2012	2013
2006								
2007	X							
2008	X	X						
2009	X	X	X					
2010	X	X	X	X				
2011	X	X	X	X	X			
2012	X	X	X	X	X	X		
2013	X	X	X	X	X	X	X	
Total								

- d) If the historical data used was not based on “annualized” first year impacts, please also complete the following chart setting out the CDM savings as used in the analysis.

## RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES

1 e)

Program Year	Actual CDM Impact (Net) by Calendar Year (MWh)							
	2006	2007	2008	2009	2010	2011	2012	2013
2006								
2007	X							
2008	X	X						
2009	X	X	X					
2010	X	X	X	X				
2011	X	X	X	X	X			
2012	X	X	X	X	X	X		
2013	x`	x	x	x	x	x	x	
Total								

2 f) Please provide the data file with the historical data used to perform the regression  
 3 analysis outlined on page 3 (lines 8-18) and the resulting regression equation and  
 4 statistics.

5 g) Please provide a schedule that clearly outlines how the regression equation results  
 6 were used to estimate the cumulative CDM in the 2011 load forecast (per page 3,  
 7 lines 15-16) and the cumulative savings for 2010 year end (per page 4, lines 4-5).

8 h) Please re-estimate the regression equation without the spring/fall period variable(s)  
 9 and provide the resulting regression equation, regression statistics and results for  
 10 Tables 2 and 3.

11  
 12

## RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES

1 **RESPONSE:**

2 a) Toronto Hydro used the savings provided by the OPA in a file titled, “2006-2010  
 3 Final OPA CDM Results – Toronto Hydro-Electric System Limited”.

4  
 5 b) The historical values used for first year’s impact of CDM programs are estimates of  
 6 the actual impact in the first year of implementation.

7  
 8 c) The table below includes 2006-2013 Annualized “net” CDM impacts by Calendar  
 9 year. Please refer to part a) above for the data source.

Program Year	Annualized “net” CDM impact by Calendar Year (MWh)							
	2006	2007	2008	2009	2010	2011	2012	2013
2006	50,152	50,152	50,152	50,152	8,710	8,710	7,968	7,968
2007		203,755	193,028	191,702	191,702	191,698	25,297	25,297
2008			109,621	107,903	107,414	107,414	105,116	101,371
2009				126,505	124,976	124,976	124,948	124,194
2010					185,646	185,350	185,282	185,269
2011						172,287	172,334	172,285
2012							111,889	110,735
2013								127,105
<b>TOTAL</b>	<b>50,152</b>	<b>253,907</b>	<b>352,800</b>	<b>476,263</b>	<b>618,450</b>	<b>790,436</b>	<b>732,834</b>	<b>854,223</b>

For GS 50-999 kW, GS 1000-4999 kW, and Large Use customer classes, CDM savings from DR programs were excluded.

## RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES

- 1 d) The 2006-2013 actual “net” CDM impacts by calendar year are provided in the table  
 2 below.

Program Year	Actual “net” CDM impact by Calendar Year (MWh)							
	2006	2007	2008	2009	2010	2011	2012	2013
2006	20,275	50,152	50,152	50,152	33,398	8,710	8,410	7,968
2007		65,933	200,284	192,599	191,702	191,701	137,853	25,297
2008			66,392	108,580	107,607	107,414	106,022	102,848
2009				61,042	125,768	124,976	124,963	124,584
2010					122,326	185,451	185,305	185,273
2011						63,504	172,304	172,316
2012							46,405	111,379
2013								53,734
<b>TOTAL</b>	<b>20,275</b>	<b>116,085</b>	<b>316,828</b>	<b>412,374</b>	<b>580,801</b>	<b>681,757</b>	<b>781,262</b>	<b>783,400</b>

For GS 50-999 kW, GS 1000-4999 kW, and Large Use customer classes, CDM savings from DR programs were excluded.

- 3 e) See response to part (d) above  
 4  
 5 f) The requested data file is provided as 9\_VECC\_66.xlsx.  
 6  
 7 g) Please refer to Toronto Hydro’s response to interrogatory 9-OEBStaff-95 part (e).  
 8  
 9 h) Presented below are the regression model outputs and results for Tables 2 and 3  
 10 without the spring/fall period variable(s) by class.

## RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES

1

### 1) Residential Model

Dependent Variable: RES_CDM_DAY				
Method: Least Squares				
Date: 10/24/14 Time: 14:53				
Sample: 2006M01 2010M04				
Included observations: 52				
White Heteroskedasticity-Consistent Standard Errors & Covariance				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
TREND_INPUT_DAY	- 0.25	0.029821	- 8.28	0.00
C	- 254,394	50978.2	- 4.99	0.00
R-squared	<b>58.07%</b>	Mean dependent var		217,006
Adjusted R-squared	<b>57.24%</b>	S.D. dependent var		136,854
S.E. of regression	89,496	Akaike info criterion		25.68
Sum squared resid	400,000,000,000	Schwarz criterion		25.75
Log likelihood	- 665.67	Hannan-Quinn criter.		25.71
F-statistic	69.26	Durbin-Watson stat		1.26
Prob(F-statistic)	0.00			

## RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES

1                    2) **GS <50 kW Model**

Dependent Variable: LESS50_CDM_DAY					
Method: Least Squares					
Date: 10/24/14 Time: 14:55					
Sample: 2007M01 2010M04					
Included observations: 40					
White Heteroskedasticity-Consistent Standard Errors & Covariance					
Variable		Coefficient	Std. Error	t-Statistic	Prob.
TREND_INPUT_DAY	-	0.48	0.059258	8.10	0.00
C	-	388,997	60958.24	6.38	0.00
R-squared		<b>64.42%</b>	Mean dependent var		148,859
Adjusted R-squared		<b>63.49%</b>	S.D. dependent var		105,152
S.E. of regression		63,539	Akaike info criterion		25.01
Sum squared resid		153,000,000,000	Schwarz criterion		25.09
Log likelihood	-	498.11	Hannan-Quinn criter.		25.04
F-statistic		68.81	Durbin-Watson stat		1.27
Prob(F-statistic)		0.00			



## RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES

1            **3) GS 1000-4999 kW Model**

Dependent Variable: GS450_EE_DAILY				
Method: Least Squares				
Date: 10/24/14 Time: 14:57				
Sample: 2007M01 2010M04				
Included observations: 40				
White Heteroskedasticity-Consistent Standard Errors & Covariance				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
TREND_INPUT_DAY	- 0.27	0.032737	- 8.23	0.00
C	- 2,376	14884.06	- 0.16	0.87
R-squared	<b>65.40%</b>	Mean dependent var		153,563
Adjusted R-squared	<b>64.48%</b>	S.D. dependent var		109,966
S.E. of regression	65,534	Akaike info criterion		25.07
Sum squared resid	163,000,000,000	Schwarz criterion		25.15
Log likelihood	- 499.34	Hannan-Quinn criter.		25.10
F-statistic	71.81	Durbin-Watson stat		1.28
Prob(F-statistic)	0.00			

## RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES

1 **4) Large Use model**

Dependent Variable: LU_CDM_EE_DAY				
Method: Least Squares				
Date: 10/24/14 Time: 14:57				
Sample: 2007M01 2010M04				
Included observations: 40				
White Heteroskedasticity-Consistent Standard Errors & Covariance				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
TREND_INPUT_DAY	- 0.58	0.069976	- 8.23	0.00
C	- 2,332	14612.98	- 0.16	0.87
R-squared	<b>65.40%</b>	Mean dependent var		150,766
Adjusted R-squared	<b>64.48%</b>	S.D. dependent var		107,963
S.E. of regression	64,341	Akaike info criterion		25.03
Sum squared resid	157,000,000,000	Schwarz criterion		25.11
Log likelihood	- 498.61	Hannan-Quinn criter.		25.06
F-statistic	71.81	Durbin-Watson stat		1.28
Prob(F-statistic)	0.00			

2 **Table 2: 2011 CDM savings forecast embedded in 2011 Load Forecast**

Customer Class	2011 Board- Approved Purchased Load Forecast	Trend Variable, kWh	Estimated cumulative CDM Savings, kWh
Residential	5,174,271,175	-1,103,440,244	179,746,229
General Service <50 kW	2,219,756,435	-595,827,679	143,996,465
General Service 50 - 999 kW	10,496,749,821	0	0
General Service 1000 - 4999 kW	4,800,900,765	-562,121,632	150,522,902
Large Use	2,421,224,078	-258,186,760	147,780,979

## RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES

1 **Table 3: 2011-2013 Forecasted CDM savings**

Customer Class	2011 CDM		2012 CDM		2013 CDM	
	kWh	kVA	kWh	kVA	kWh	kVA
Residential	15,798,318		29,129,392		28,709,420	
Competitive Sector Multi-Unit Residential (CSMUR)**					340,383	
General Service <50 kW	16,573,756		30,559,168		30,475,673	
General Service 50 - 999 kW		0		0		0
General Service 1000 - 4999 kW		40,065		73,620		73,429
Large Use		36,920		67,663		67,487
<b>Total</b>	<b>32,372,074</b>	<b>76,985</b>	<b>59,688,559</b>	<b>141,283</b>	<b>59,525,476</b>	<b>140,915</b>

## **RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES**

1 **INTERROGATORY 67:**

2 **Reference(s):** **Exhibit 9, Tab 2, Schedule 5, pp. 4-5**

3

4

5 a) Please explain what new information was incorporated in the Update for purposes of  
6 estimating the regression equation.

7 b) Please explain why the September Update led to a change in the estimated cumulative  
8 CDM savings embedded in the 2011 Load Forecast (per Table 2) versus the original  
9 Application.

10

11

12 **RESPONSE:**

13 a) and b)

14 Please refer to Toronto Hydro's response to interrogatory to 3-VECC-21 part (a).

**RESPONSES TO VULNERABLE ENERGY CONSUMERS  
 COALITION INTERROGATORIES**

1 **INTERROGATORY 68:**

2 **Reference(s):** **Exhibit 9, Tab 2, Schedule 5, pages 5-6**

3  
4

- 5 a) Please provide a revised version of Table 3 that includes the kWh savings for the GS  
6 50-999; GS 1,000-4,999 and Large Use classes.
- 7 b) With respect the results from part (a), please reconcile the resulting 2012 and 2013  
8 CDM kWh totals with the 2011 CDM program persisting savings reported for 2012  
9 and 2013 (Appendix B, page 7).
- 10 c) Please explain how the allocation of forecast CDM savings to customer classes as set  
11 out in Table 3 was performed.
- 12 d) Please provide a schedule that set out the derivation of the actual 2011-2013 CDM  
13 savings for the Residential class as shown in Table 4.

14  
15

16 **RESPONSE:**

17 a) A revised version of Table 3 is provided below:

18  
19

**2011-2013 Forecasted CDM Savings:**

Customer Class	2011 CDM		2012 CDM		2013 CDM	
	kWh	kVA	kWh	kVA	kWh	kVA
Residential	16,077,338	n/a	29,643,858	n/a	29,216,469	n/a
CSMUR	n/a	n/a	n/a	n/a	346,394	n/a
General Service <50 kW	16,910,008	n/a	31,179,157	n/a	31,093,969	n/a
General Service 50 - 999 kW	0	0	0	0	0	0
General Service 1000 - 4999 kW	17,810,560	40,863	32,839,621	75,086	32,749,896	74,891
Large Use	17,810,536	37,655	32,839,578	69,011	32,749,852	68,831

## RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES

Customer Class	2011 CDM		2012 CDM		2013 CDM	
	kWh	kVA	kWh	kVA	kWh	kVA
<b>Total</b>	68,608,441	78,518	126,502,214	144,097	126,156,580	143,722

For GS 50-999 kW, GS 1000-4999 kW, and Large Use customer classes, CDM savings from DR programs were excluded.

- 1 b) The revised table with 2011 CDM program incremental and persisting savings in  
 2 2011, 2012 and 2013 is presented below. The kWh and kVA savings from 2012 and  
 3 2013 CDM programs are excluded. As a result, the totals in the table below are not  
 4 compatible for 2011-2013 LRAMVA balance determination.

Customer Class	2011 CDM		2012 CDM		2013 CDM	
	kWh	kVA	kWh	kVA	kWh	kVA
Residential	7,040,991	n/a	19,100,127	n/a	18,866,810	n/a
CSMUR	n/a	n/a	n/a	n/a	232,548	n/a
General Service <50 kW	11,310,557	n/a	30,704,099	n/a	30,717,050	n/a
General Service 50 - 999 kW	23,996,792	61,746	65,104,253	115,869	65,104,253	115,869
General Service 1000 - 4999 kW	11,365,657	30,002	30,835,480	56,434	30,835,480	56,434
Large Use	9,789,750	25,582	26,559,982	48,128	26,559,982	48,128
<b>Total</b>	63,503,746	117,330	172,303,940	220,432	172,316,122	220,432

For GS 50-999 kW, GS 1000-4999 kW, and Large Use customer classes, CDM savings from DR programs were excluded.

- 5 c) The estimates of CDM savings forecast by class are based on the trend variable  
 6 incorporated in forecasting models. For details of these estimations, please refer to  
 7 Exhibit 9, Tab 2, Schedule 5, section 4, pages 3-5.  
 8  
 9 d) To obtain 2011 to 2013 residential savings, the following section of the table from the  
 10 OPA's 2013 Draft Verified CDM program totals was referenced:

## RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES

	Peak Demand Savings (kW)			Energy Consumption Savings (kWh)		
	2011	2012	2013	2011	2012	2013
					1,091,60	
<b>Appliance Retirement</b>	349	161	90	2,343,820	9	591,184
<b>Appliance Exchange</b>	52	83	65	57,879	143,607	116,004
		5,67		10,493,16	4,781,80	5,189,75
<b>HVAC Incentives</b>	4	2,821	3,015	6	6	8
<b>Conservation Instant Coupon Booklet</b>	150	29	66	2,439,881	178,941	986,409
					3,427,49	2,198,66
<b>Bi-Annual Retailer Event</b>	215	189	151	3,760,986	9	3
<b>Retailer Co-Op</b>	-	-	-	230	-	-
<b>Residential Demand Response</b>	743	22,940	34,268	1,924	168,943	116,929
<b>Residential Demand Response (IHD)</b>	-	-	-	-	-	-
<b>Residential New Construction</b>	-	-	13	-	-	105,822
						1,620,65
<b>Home Assistance Program</b>	-	98	122	-	790,242	0
					3,791,69	
<b>Adjustments to 2011 Verified</b>	-	178	390	-	4	165,560
						10,542,1
<b>Adjustments to 2012 Verified</b>	-	-	1,369	-	-	15

- 1 From this source data, the following steps were taken:
- 2 1) The residential rate class portions of the totals above were identified based on the
- 3 type of program.
- 4

## **RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES**

- 1           2) Each month was assigned a percentage of the annual savings that would be  
2           considered initiated in that month, which would then continue to produce savings  
3           for the next 12 consecutive months in order to achieve the annual total. For  
4           example, for the portion of projects that initiated in January of a given year,  
5           annual savings would be realized by December of the same year; however, for the  
6           portion of total projects which were considered initiated in June of a given year,  
7           annual savings would be realized by May of the following year. As a result of  
8           this application, the savings reported by the OPA for any given calendar year  
9           would actually span that given year as well as the next, in a similar but more  
10          comprehensive manner to the “half-year” rule.  
11
- 12          3) Typical project measures were assessed for their pattern of annual savings, so as  
13          not to allocate the same level of peak demand or consumption savings each  
14          month, without discretion. For example, peak demand and consumption savings  
15          related to residential projects involving cooling loads were considered 100%  
16          realized in the hottest months (July and August); however, the savings resulting  
17          from these projects were reduced accordingly in the shoulder and heating months.  
18
- 19          4) Finally, persistence was applied to acknowledge the continuation of savings for  
20          the typical measures implemented in each of the CDM programs and years. For  
21          the purposes of LRAMVA calculations, 2013 achievements included persistence  
22          from 2011 and 2012, while 2012 savings included persistence from only 2011.  
23          Persistence resulting from savings achieved in between 2006 and 2010 were not  
24          included.  
25



## RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES

1 The approach described above produced a scheduled allocation of the OPA draft  
 2 verified savings for 2011-2013, which are summarized in the table below:

	TOTAL 2011 CDM (MWh)	TOTAL 2012 CDM (MWh)	TOTAL 2013 CDM (MWh)
Jan	28	1,825	2,821
Feb	52	1,862	2,890
Mar	160	1,984	2,941
Apr	127	982	1,455
May	189	1,024	1,491
Jun	703	2,599	3,765
Jul	900	2,721	3,993
Aug	953	2,707	3,995
Sep	1,033	2,731	4,052
Oct	477	1,141	1,698
Nov	628	1,183	1,810
Dec	1,791	2,769	3,907
<b>Totals</b>	<b>7,041</b>	<b>23,529</b>	<b>34,818</b>

**RESPONSES TO VULNERABLE ENERGY CONSUMERS  
COALITION INTERROGATORIES**

1 **INTERROGATORY 69:**

2 **Reference(s):** **Exhibit 9, Tab 1, Schedule 1, page 5**

3

4

5 a) When does THESL expect to file the Account 1588 balance update contemplated in  
6 the application?

7

8

9 **RESPONSE:**

10 Toronto Hydro cannot provide an exact date as to when it expects to file any updated  
11 information related to Account 1588 (or other RSVA accounts) at this time. Toronto  
12 Hydro will file updated evidence as soon as it is available.