

INTERROGATORIES OF VULNERABLE ENERGY CONSUMERS COALITION

1 **INTERROGATORY 1:**

2 **Reference(s):** **Exhibit R1 Tab 11 Schedule 2 EB-2009-0139**

3 **Exhibit A1 Tab 5 Schedule**

4

5 a) Explain why THESL has still not performed an independent shared services cost
6 allocation study as ordered in EB-2007-0680, especially now that the reorganization
7 of shared services is completed?

8 b) In EB-2008-0139 the Board directed THESL to

9 Use Account 1508, Other Regulatory Assets, “Sub-account Transit city Program
10 2010 Deferred Capital Costs” to record any revenue requirement impact in 2010
11 of up to \$27.8 million of capital expense actually incurred related to THESL’s
12 proposed Transit City program (p. 44).

13 c) Point to the evidence on details of the costs/balances.

14 d) Are the costs in this account to be cleared in this proceeding? If so please provide the
15 proposed disposition.

16

17 **RESPONSE:**

18 a) THESL wrote to the OEB in a letter dated June 15, 2009 regarding the EB-2007-0680
19 Board Direction Regarding Shared Services Study. In this letter, THESL asked to be
20 relieved of the requirement of the directive, on the basis that with reorganization, the
21 amounts involved did not warrant the cost of a study. THESL further requested in
22 this letter to be notified by the Board in writing if the Board decided otherwise. Since
23 no response from the Board has been received, THESL has not performed an
24 independent shared services cost allocation study.

25

26 b) No question is posed.

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- 1 c) To date, THESL has not booked any amount to the indicated account.
- 2
- 3 d) There are no related costs to be cleared in this proceeding.

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1 **INTERROGATORY 2:**

2 **Reference(s):** Exhibit B1 Tab 13 Schedule 1-Service Quality Measures

3

- 4 a) With regard to Table 1 please add a column 10 with 2010 YTD values.
5 b) Explain why, although above standard, Telephone Accessibility is not improving.
6 c) Explain why Emergency Response is below standard in the last year reported (2009).
7 d) If the 2010 YTD data show no improvement in either TA or ER then discuss in detail
8 what measures are being taken to improve performance.

9

10 **RESPONSE:**

11 a)

	2010 YTD
New Service Connections < 750 Volts	96.3%
New Service Connections > 750 Volts	99.1%
Appointment Scheduling	97.2%
Appointments Met	99.9%
Appointment Rescheduling	100%
Telephone Accessibility	71.6%
Telephone Call Abandon Rate	2.5%
Written Inquiry Response	98.3%
Emergency Response	81.6%
Call Centre Call Quality	90.0%

- 12 b) Service level response targets are based on budgeted resource allocations and
13 forecasted call volumes. Fluctuations in annual achievement can be attributed to
14 external call drivers including; government initiatives (e.g., Smart Meters, Time-of-
15 Use Billing), regulatory impacts, media, weather, and rate increases. Internal
16 initiatives may also impact service response.

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1 c) THESL's emergency response of 79.5% in 2009 was negatively impacted by 21, non-
2 MED (Major Event Day) storm days. These storm events generated large volumes of
3 emergency/outage calls within a few hours. In these instances, THESL's crews were
4 not always able to meet the one-hour response times, and the emergency response
5 measure suffered.

6

7 d) We will continue to monitor and maintain telephone accessibility levels that ensure
8 THESL is above the regulated standard. While we will strive to provide additional
9 customer service options, we must balance the associated costs.

10

11 To improve emergency response, in 2010 THESL has implemented GPS vehicle
12 location technology in all its vehicles to more efficiently dispatch calls to the nearest
13 available crew. Additionally, THESL has increased the number of crews that may be
14 immediately released from planned work activities in order to provide escalated
15 emergency response when needed.

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1 **INTERROGATORY 3:**

2 **Reference(s):** **Exhibit B1 Tab 14 Schedule1**

3

4 a) With regard to Table 4 please add a column 10 with 2010 YTD values (SAIDI, SAIFI
 5 and CAIDI, without LOS and MEDs).

6 b) Provide an analysis and assessment of trends in reliability.

7 c) Indicate which parts of the system have the worst reliability, by providing the 2005-
 8 2009 and 2010 YTD relevant SAIDI and CI indices for Transformers, underground
 9 and overhead. Discuss the results.

10 d) Provide a summary of Momentary Interruptions by year 2005 – 2010. Discuss trends.

11

12 **RESPONSE:**

13 a)

14 **Table 1: Reliability Performance without MEDs and Loss of Supply**

Service Reliability Indicators Performance Measures (without MEDs and Loss of Supply)	Actual					
	2005	2006	2007	2008	2009	2010 (31Oct.)
SAIFI (number of interruptions per customer)	1.62	1.84	1.77	1.66	1.51	1.40
SAIDI (number of hours of interruption per customer)	1.17	1.17	1.25	1.22	1.24	1.09
CAIDI (number of hours per interruption)	0.72	0.64	0.71	0.73	0.82	0.78

15 b) SAIFI – From 2005 to 2010 (end of October), overall SAIFI values have been
 16 trending downwards. The dominating factor in SAIFI is defective equipment (45-
 17 50% of SAIFI), which has been trending downwards since 2008. Other dominant

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1 causes include Foreign Interference, Unknown and Tree contacts (total of 30-40%),
 2 which have also been trending downwards.

3

4 SAIDI – From 2005 to 2010 (end of October), overall SAIDI values have been
 5 trending higher but have stabilized since 2007. Cause codes such as Adverse
 6 Environment, Adverse Weather and Loss of Supply have been deteriorating while
 7 all other cause codes have shown slight improvement. However, in 2009, Loss of
 8 Supply and foreign interference were significantly higher than 2008.

9

10 CAIDI – CAIDI is the average interruption duration which is simply SAIDI divided
 11 by SAIFI. CAIDI trends directly with SAIDI and inversely with SAIFI. Over the
 12 five-year period, THESL has experienced a decrease in SAIFI and a stable SAIDI.
 13 This has resulted in an increasing CAIDI.

14

15 c)

16 **Table 2: 2005-2010 SAIDI Indices**

SAIDI	2005	2006	2007	2008	2009	2010 (31 Oct.)
O/H TX	0.88	1.01	0.65	0.59	0.53	0.94
U/G TX	3.38	2.57	2.60	2.84	1.92	1.70

17 **Table 3: 2005-2010 CI Indices**

CI	2005	2006	2007	2008	2009	2010 (31 Oct.)
O/H Tx	5,839	13,517	4,606	5,511	11,273	9,682
U/G Tx	25,939	31,608	35,841	23,369	17,665	18,622

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1 Tables 2 and 3 show the SAIDI and CI indices for overhead transformers (O/H TX)
 2 and underground transformers (U/G TX) from 2005 to 2010 (31 October). The
 3 SAIDI impact of O/H TX shows a clearly improving trend from 2006 onwards.
 4 However, rapidly failing Completely Self-Protected (“CSP”) type transformers have
 5 had a significant impact on the 2010 SAIDI. The SAIDI impact of U/G TX has
 6 improved generally from 2005 levels, with marked improvement since 2008. This
 7 can be attributed to the installation of only switchable type submersible transformers
 8 as standard, thus reducing the time required to isolate defective submersible
 9 transformers. The CI impact of O/H TX is seen to be increasing as the failure of CSP
 10 type transformers accelerates. As a result, capital programs are in place to address
 11 this issue by replacing legacy CSP transformers with new, non-CSP type. The CI
 12 impact of U/G TX has shown consistent improvement from 2007 levels.

13

14 d)

15 **Table 4: Summary of Momentary Interruptions**

	2005	2006	2007	2008	2009	2010 (Oct. 31)
Total Momentary Interruptions	996	1166	1244	1246	1285	925
Unknown	452	595	595	575	631	494
Animal Contact	74	103	109	83	88	66
Human Element	20	21	24	20	26	11
Adverse Environment / Weather	187	101	192	178	190	125

16 Table 4 provides a summary of momentary interruptions from 2005 to 2010 (31 October).
 17 The total number of interruptions for each year was broken down into some of the major
 18 cause codes to help explain the trends. The major cause codes included are Unknown,
 19 Animal Contact, Human Element and Adverse Environment/Weather.

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1 While momentary interruptions due to unknown causes have generally increased
2 between 2005 and 2009, increasing focus on maintenance tasks such as tree trimming
3 is helping to show improvement in 2010. The number of interruptions due to animal
4 contact has improved from 2006/2007 levels, while the number of outages due to
5 human element remains generally consistent. Momentary interruptions due to
6 adverse environment/weather has remained high from 2007 to 2009; however,
7 marked improvement is shown in 2010 as investments have been made to make the
8 distribution system more robust and resistant to weather related events.

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1 **INTERROGATORY 4:**

2 **Reference(s):** **Exhibit C1 Tab 4 Schedule 1 Appendix C**

3

4 a) Provide a version of Tables 1-6 that includes the latest Conference Board Forecast (or
5 other forecast) numbers in brackets under the as filed values.

6 b) Indicate by annotating the Table rows which values will be updated prior to ADR
7 and/or prior to the Draft Rate Order.

8 c) Update the historical bridge and test year revenue forecast in Table 7 and insert a
9 column to show the 2010 Board-approved values.

10 d) Explain what are the main differences in 2010 YTD e.g. customer additions, TOU
11 rates, CDM etc.

12

13 **RESPONSE:**

14 a) Please see response to BOMA interrogatory 3 for updates to Tables 1 and 2. The
15 only other update is for Table 6, where the OEB prescribed rate for 2010 Q4 is
16 4.01%.

17

18 b) THESL does not intend any further updates to these tables.

19

20 c) Table 7 contains customer numbers, not revenue. Customer numbers can be found in
21 Exhibit K1, Tab 4, Schedule 1.

22

23 d) Not applicable. Please see response to (c) above.

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1 **INTERROGATORY 5:**

2 **Reference(s):** **Exhibit C1 Tab 4 Schedule 2**

3

4 a) Provide a version of Table 1 that shows, under each entry, the CBC Toronto October
5 2010 Economic Indicators for 2010 and 2011.

6 b) Is THESL planning to update its business planning assumptions based on the latest
7 CBC forecast and if so, list which assumptions, specifically (such as housing starts).

8 c) Provide a copy of the presentation of the 2011 Business Plan to the Board of
9 Directors or in the alternative a list of all material changes in assumptions from this
10 filing.

11 d) Provide a copy of the Approval of the 2011 Business Plan.

12

13 **RESPONSE:**

14 a) Please see response at Exhibit R1, Tab 3, Schedule 4.

15

16 b) THESL does not intend to update its business planning assumptions.

17

18 c) Please see the response at Exhibit R1, Tab 4, Schedule 1.

19

20 d) There is no formal approval document; the 2011 Business Plan was approved verbally
21 on November 26, 2010.

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1 **INTERROGATORY 6:**

2 **Reference(s):** **Exhibit C2 Tab 1 Schedule 2 Appendix A**
3 **Exhibit C2 Tab 1 Schedule 5**
4 **EB-2009-0139 Exhibit R1 Tab 11 Schedule 13**
5

- 6 a) Provide a version of Appendix A that shows YTD and revised Forecast for 2010
7 (retain original Forecast).
8 b) Update the 2011 forecast to reflect material changes in head count in the 2010 revised
9 forecast update.
10 c) Indicate if the changes in headcount are due to hiring or retirements.
11 d) Provide data on retirements by category of employee from 2006-2009 and 2010 YTD
12 and forecast for 2010 and 2011.
13 e) Compare to the 2010 forecast in the Tables provided in the third reference.
14

15 **RESPONSE:**

- 16 a) As preparation of 2010 year-to-date data as shown in Appendix A would require
17 substantial effort and allocation judgment, THESL declines to produce the requested
18 document. THESL believes the forecast value for 2010 remains on track.
19
20 b) Please see response to part a) above.
21
22 c) Please see response to part a) above.

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1 d)

2 **Table 1: Number of retirements by employee category**

	2006 Actual	2007 Actual	2008 Actual	2009 Actual	2010 (As at Oct 31)	2010 Forecast	2011 Forecast
Executive	1	0	0	0	1	0	1
Managerial	0	1	0	3	2	4	1
Management/ Non-Union	1	5	5	3	13	8	3
Union	8	13	11	24	39	52	32
TOTAL	10	19	16	30	55	64	37

3 e) The table below compares the current 2010 employee retirements forecast with the
 4 number of 2010 employee retirements forecast in EB-2009-0139, Exhibit R1, Tab 11,
 5 Schedule 13.

6

7 **Table 2: Comparison of 2010 Forecast Retirements**

	2010 Forecast	2010 Forecast (Exhibit R1, Tab 11, Schedule 13)
Executive	0	0
Managerial	4	4
Management/Non-Union	8	3
Union	52	31
TOTAL	64	38

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1 **INTERROGATORY 7:**

2 **Reference(s):** **Exhibit C2 Tab 1 Schedule 5**
3 **EB-2008-0139 Exhibit R1 Tab 11 Schedule 14 parts b and c**
4

- 5 a) Provide a schedule that shows by month the 2011 hiring plan for union employees by
6 level and the associated \$ impact on 2011 total compensation costs. Reconcile the
7 total compensation cost to the amounts shown at lines 29-31 of C2 Tab 1 Schedule 2
8 Appendix A.
- 9 b) Provide a schedule that shows by month the hiring plan for non-union employees by
10 level and the associated \$ impact on 2011 total compensation costs. Reconcile the
11 total compensation cost to the amounts shown at lines 29 and 30 of C2 Tab1 Schedule
12 2 Appendix A.
- 13 c) Update the 2010 hiring plan tables provided in the second reference to provide a
14 comparison between forecast (per IRR 14) and actual.
- 15 d) If delays in hiring occur in 2011 (as appears to be the case in 2008 and 2009)
16 estimate the impact on total compensation of a reduction in 10 FTEs for non-union
17 employees and a reduction of 10 FTEs in union employees. State clearly your timing
18 assumptions.

19
20 **RESPONSE:**

- 21 a) and b) Table 1 below outlines by month the hiring plan for Managerial, Management/
22 Non-Union and Union Employees with the associated dollar impact on total
23 compensation (Salary, Wages & Benefits).

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1 **Table 1: 2011 Hiring Plan**

Category	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Oct	Total
Managerial	\$549K	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$549K
Mgmt/Non Union	\$2,036K	\$169K	\$907K	\$794K	\$84K	\$306K	\$-	\$-	\$-	\$4,295K
Union	\$1,281K	\$970K	\$621K	\$1,944K	\$-	\$50K	\$120K	\$301K	\$60K	\$5,348K
	\$3,866K	\$1,139K	\$1,528K	\$2,738K	\$84K	\$356K	\$120K	\$301K	\$60K	\$10,192K

2 Tables 2 and 3 below (Existing and Hiring Plan & Existing) provide a reconciliation of
 3 2011 total compensation cost to lines 29-31 of Exhibit C2, Tab1, Schedule 2, Appendix
 4 A.

5
 6 **Table 2: Existing**

Category	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Oct	Total
Executive	\$3,052K	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$3,052K
Managerial	\$9,497K	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$9,497K
Mgmt/Non Union	\$80,496K	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$80,496K
Union	\$126,800K	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$126,800K
	\$219,844K	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$219,844K

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1 **Table 3: Hiring Plan & Existing**

Category	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Oct	Total
Executive	\$3,052K	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$3,052K
Managerial	\$10,046K	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$10,046K
Mgmt/Non Union	\$82,532K	\$169K	\$907K	\$794K	\$84K	\$306K	\$-	\$-	\$-	\$84,791K
Union	\$128,080K	\$970K	\$621K	\$1,944K	\$-	\$50K	\$120K	\$301K	\$60K	\$132,147K
	\$223,710K	\$1,139K	\$1,528K	\$2,738K	\$84K	\$356K	\$120K	\$301K	\$60K	\$230,036K

2

3 c) The table below shows the Updated 2010 Hiring Plan.

4

5 **Table 4: Updated Hiring Plan**

Category	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Executive	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Manager	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 192 K	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 192 K
Mgmt / Non Union	\$3,296 K	\$ -	\$1,247 K	\$ -	\$458 K	\$4,274 K	\$ -	\$ -	\$568 K	\$ -	\$ -	\$ -	\$ 9,843 K
Union	\$4,055 K	\$1,281 K	\$ 656 K	\$822 K	\$ -	\$ 803 K	\$1,290 K	\$ 4 K	\$ -	\$ -	\$ -	\$118 K	\$ 9,030 K
	\$7,352 K	\$1,281 K	\$1,903 K	\$822 K	\$458 K	\$5,269 K	\$1,290 K	\$ 4 K	\$568 K	\$ -	\$ -	\$118 K	\$ 19,064 K

6 d) The table below shows the estimated impact on total compensation of a reduction in
 7 ten FTEs for non-union and union employees. This table assumes that hiring is
 8 deferred for an entire year.

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1 **Table 5: 2011 Estimated Impact of Reduction of 10 FTEs**

Category	Total
Mgmt / Non Union	\$ 1,336K
Union	\$ 909K

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1 **INTERROGATORY 8:**

2 **Reference(s):** **Exhibit C2 Tab 2 Schedule 2 page 6**

3

4 a) Provide a breakdown of the 2011 capital expenditures at 28 Underwriters Road.

5

6 **RESPONSE:**

7

SITE WORK	\$246,720
EXTERIOR BUILDING REPAIRS	\$216,327
INTERIOR BUILDING REPAIRS	\$530,000
MECHANICAL	\$630,000
	\$1,623,047

8

SITE WORK
FENCE REPAIRS
VISITOR PKG PAVING REP.
S.&W. SHIP PAVING REP.
WEST DRIVE PAVING REP.
STORAGE YARD GRAVEL
LINE PAINTING
EXT. LIGHTING
LANDSCAPING
PARKING CURBS

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EXTERIOR BUILDING REPAIRS
LOADING DOCK
SIDING REPAIRS
WINDOW DEMOS
BRICK FAÇADE (DEMO)
ROOF REPAIRS
O/H DOOR REPLACEMENT
WINDOW FILM W/HSE
DOOR CLOSERS & REPAIRS
DOOR REPLACEMENT
NEW WIN/CURTAIN WALL
BROKEN GLASS REPAIRS

1

INTERIOR BUILDING REPAIRS
DEMOLITION
NEW DRYWALL CONSTN.
PAINTING
NEW CARPET
ELECTRICAL
DATA ROOM HALON
NEW CEILING TILES
REPAIRS TO T-BAR SYS.
REPAIRS TO VINYL FLRS.
WINDOW BLINDS/OFF
VARIOUS WAREHOUSE CAGES
WINDOW FILM/OFF
NEW LOCKERS
LIFE SAFETY SYSTEMS UPGRADES

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MECHANICAL
HEAT PUMP REPLACEMT.
LIEBERT REPLACEMENT
NEW SPLIT SYS INSTALL
COOLING TOW. REPLACE
GLYCOL/PUMP SERVICE

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1 **INTERROGATORY 9:**

2 **Reference(s):** **Exhibit B1 Tab 14 Schedule 1 page 15**
3 **Exhibit C2 Tab 3 Schedule 3 Page 3**
4 **EB-2009-0139 Exhibit R1 Tab 11 Schedule 7**
5

- 6 a) Provide the tree trimming statistics for 2008-2011 including annual contract costs,
7 number of contracts and line km trimmed.
- 8 b) According to the third reference, the contract with Davey Tree Services expires at the
9 end of 2010. Has THESL tendered for replacement services? If so provide non-
10 confidential information on # bidders, Successful bidder(s) and contract Price(s) and
11 line km targets.
- 12 c) Indicate if the O&M costs related to tree trimming for 2011 are based in the tender
13 information. If not, please update the 2011 costs.
14

15 **RESPONSE:**

16 a)

	2008	2009	2010	2011
Annual Contract Costs	3.4	3.3	3.8	4.1
No. of Contracts	1	1	1	1
Circuit km	1,512	1,522	1,638	1,360

17 The annual contract costs above are also shown in Exhibit C2, Tab 3, Schedule 3,
18 page 11. The 2011 agreement has not been signed and final contract negotiations are
19 in progress.

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- 1 b) Yes, THESL has tendered for the replacement services. Three companies submitted
2 bids. The tendered circuit km is 1,360. Davey Tree Services is the successful bidder.
3 The agreement has not been signed and final contract negotiations are in progress.
4
- 5 c) No, the tree trimming for 2011 are not based on tender information. At this time, the
6 forecast costs remain \$4.1 million as indicated.

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1 **INTERROGATORY 10:**

2 **Reference(s):** **Exhibit K1 Tab 1 Schedule 1, page 1**

3

4 a) Please explain what the MVA values set out in Table 1 represent.

5

6 **RESPONSE:**

7 a) The MVA (MegaVoltAmps) values in Table 1 represent sum of annual billed MVA
8 across those customer classes for which kVA (kiloVoltAmps) are used as billing units
9 (GS 50-999 kW, GS 1,000-4,999kW, Large Users and Street Lighting). MVA are
10 weather-normalized to test-year heating and cooling degree days assumptions. For
11 details by customer class please refer to Table 1 in Exhibit K1, Tab 3, Schedule 2,
12 page 1.

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1 **INTERROGATORY 11:**

2 **Reference(s):** Exhibit K1 Tab 1 Schedule 1, page 3

3

- 4 a) Please confirm that the 2009 values shown in Table 3 are actual purchases and not
5 weather normalized purchases?
- 6 b) Please confirm whether the 2010 Bridge Year Purchases shown in Table 3 are based
7 on four months of actual sales or four months of actual sales that have been weather
8 normalized. If required, please restate the 2010 Bridge Year values using four
9 months of actual “weather normalized” loads.
- 10 c) Please provide a schedule that sets out the for those months where 2010 actual data is
11 available the following totals:
- 12 • 2010 EDR Forecast
 - 13 • 2010 Actuals
 - 14 • 2010 Weather Normalized Purchases

15

16 **RESPONSE:**

- 17 a) The values shown in the 2010 EDR Forecast column for both 2009 and 2010 were
18 based on “normal” weather (2009 values were combination of actual for those months
19 where actuals existed and forecast for the forecast months). The 2009 values shown
20 in the “2009 Actual / 2010 Bridge” column in Table 3 are actual non-normalized
21 purchases.
- 22
- 23 b) The 2010 Bridge Year Purchases shown in Table 3 are based on four months of actual
24 sales. For 2010 Bridge Year Purchases including four months of weather-normalized
25 loads please refer to Table 1, Exhibit K1 Tab 1 Schedule 1, page 1.

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1 c)

2010	2010 EDR Forecast, kWh	2010 Actuals, kWh	2010 Weather- Normalized Actuals, kWh
Jan-10	2,320,777,954	2,327,338,530	2,307,969,557
Feb-10	2,092,130,369	2,076,850,029	2,097,390,144
Mar-10	2,219,623,169	2,096,004,303	2,215,794,256
Apr-10	1,980,447,362	1,878,046,613	1,956,655,692
May-10	1,992,104,883	2,058,206,037	1,967,753,227
Jun-10	2,155,025,101	2,106,771,875	2,151,884,956
Jul-10	2,358,567,606	2,475,655,900	2,395,798,782
Aug-10	2,299,346,031	2,369,678,675	2,297,765,999
Sep-10	2,043,344,136	1,997,002,596	2,023,259,443
Oct-10	2,000,347,539	1,974,193,658	2,002,318,076
Total of Jan-Oct 2010	21,461,714,149	21,359,748,216	21,416,590,134
Variance		-0.5%	-0.2%

2 Note: Weather-normalization was performed based on 2010 EDR cooling and heating
 3 degree day assumptions.

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1 **INTERROGATORY 12:**

2 **Reference(s):** **Exhibit K1 Tab 1 Schedule 1 pages 5 and 6**

3 **Exhibit K1 Tab 2 Schedule 2**

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- a) Please provide a set of schedules that contrast the regression variables used for each customer class in the current Application with those used in previous applications.
- b) Did THESL test any models for the GS<50, GS>50-999, GS1000-4999 and Large User classes that included a measure of economic activity such as Provincial GDP or Local Employment levels? If yes, what were the results?
- c) If the response to part (b) is no, please explain why not. Please also provide the results of a model for each of these classes that includes local employment (as reported by Statistics Canada) as an independent variable.
- d) The trend line variables used in the various equations all have negative values. Given the equations do not include any variables reflecting economic activity, please comment on the likelihood that the coefficient for this trend variable is influenced by the recent economic down turn.

18 **RESPONSE:**

19 a)

Customer Class	2008-2010 EDR	2010 EDR	2011 EDR
Residential	n/a	HDD10 per day CDD per day Toronto City Population Linear Trend (July 2002) Blackout dummy Intercept term	HDD10 per day CDD per day Toronto City Population Linear Trend (July 2002) Blackout dummy Intercept term

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Customer Class	2008-2010 EDR	2010 EDR	2011 EDR
GS<50 kW	n/a	HDD10 per day CDD per day Dew Point Temperature Business Days Percentage Toronto City Population Number of GS<50 kW customers Linear Trend (July 2002) Blackout dummy Intercept term	HDD10 per day CDD per day Business Days Percentage Toronto City Population Number of GS<50 kW customers Linear Trend (July 2002) Blackout dummy Intercept term
GS 50-999 kW	n/a	HDD10 per day CDD per day Dew Point Temperature Business Days Percentage Number of GS 50-1000 kW customers Blackout dummy Intercept term	HDD10 per day CDD per day Dew Point Temperature Business Days Percentage Number of GS 50-1000 kW customers Blackout dummy Intercept term
GS 1,000-4,999 kW	n/a	HDD10 per day CDD per day Dew Point Temperature Business Days Percentage Number of GS 1-5 MW customers Linear Trend (January 2007) Blackout dummy Intercept term	HDD10 per day CDD per day Dew Point Temperature Business Days Percentage Number of GS 1-5 MW customers Linear Trend (January 2007) Blackout dummy Intercept term
Large Users	n/a	HDD10 per day CDD per day Dew Point Temperature Business Days Percentage Linear Trend (January 2007) Blackout dummy Intercept term	HDD10 per day CDD per day Dew Point Temperature Business Days Percentage Linear Trend (January 2007) Blackout dummy Intercept term

INTERROGATORIES OF VULNERABLE ENERGY CONSUMERS COALITION

Customer Class	2008-2010 EDR	2010 EDR	2011 EDR
Street Lighting	n/a	11 monthly dummy variables: January to December (excluding March) Intercept term	11 monthly dummy variables: January to December (excluding March) Intercept term
USL	n/a	For USL, relatively stable loads suggested extrapolation model was best for forecasting loads.	For USL, relatively stable loads suggested extrapolation model was best for forecasting loads
Total Purchased Energy (sum of class loads)	HDD CDD Peak Hours percentage Days of the month squared GDP Spring/Fall dummy Blackout dummy Intercept term	n/a	n/a

- 1 b) THESL did test models with direct indicators of economic conditions such as GDP
 2 and Employment. Detailed class regressions and forecast outcome for two GDP
 3 scenarios are shown in THESL response to Board Staff Interrogatory # 10 d. The
 4 GDP variable proved to be insignificant or had the “wrong” (i.e., negative) sign,
 5 adding no additional explanatory value to the regression models (lower Adjusted-R²
 6 compared to the filed version of the models) for Residential and Large User classes in
 7 “GDP with trends” scenario. The same conclusions applied to all customer classes

INTERROGATORIES OF VULNERABLE ENERGY CONSUMERS COALITION

1 (except for GS 50-999 kW) in the “GDP with no trend variables” scenario. For GS
 2 50-999 kW (both scenarios), GS<50 kW and GS 1,000-4,999 kW (“GDP with trends”
 3 scenario) GDP made other variables (population or customer numbers) insignificant.
 4 For statistics and details on the model variation with local employment please to part
 5 (c) below.

6
 7 c) Please see class model statistics with Toronto employment added to the original set of
 8 explanatory variables.

Residential Model	Dependent Variable: RES_DAY Method: Least Squares Date: 11/22/10 Time: 16:58 Sample: 2002M07 2010M04 Included observations: 94 White Heteroskedasticity-Consistent Standard Errors & Covariance																																								
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GS<50 Model	Dependent Variable: LESS50_DAY Method: Least Squares Date: 11/23/10 Time: 10:19 Sample: 2002M07 2010M04 Included observations: 94 White Heteroskedasticity-Consistent Standard Errors & Covariance																																								

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	Variable	Coefficient	Std. Error	t-Statistic	Prob.
	CDD18_DAY	294811.5	8100.597	36.39380	0.0000
	HDD10_DAY	78831.18	2688.788	29.31848	0.0000
	BUS_DAYS_PERCENT	8165.062	3956.290	2.063818	0.0421
	TREND_JUL2002	-14769.85	2194.375	-6.730778	0.0000
	POP	1488.419	1050.782	1.416487	0.1603
	CUST_NUMBERS	189.9578	41.22797	4.607497	0.0000
	EMPL	537.8451	679.9954	0.790954	0.4312
	BLACKOUT	-360221.4	32997.97	-10.91647	0.0000
	C	-10188811	3089116.	-3.298293	0.0014
	R-squared	0.965914	Mean dependent var	6950047.	
	Adjusted R-squared	0.962706	S.D. dependent var	638391.7	
	S.E. of regression	123284.1	Akaike info criterion	26.37322	
	Sum squared resid	1.29E+12	Schwarz criterion	26.61672	
	Log likelihood	-1230.541	Hannan-Quinn criter.	26.47158	
	F-statistic	301.0868	Durbin-Watson stat	0.877226	
	Prob(F-statistic)	0.000000			
GS 50-999 Model	Dependent Variable: ENERGY_DAY Method: Least Squares Date: 11/23/10 Time: 10:27 Sample: 2002M07 2010M04 Included observations: 94 White Heteroskedasticity-Consistent Standard Errors & Covariance				
	Variable	Coefficient	Std. Error	t-Statistic	Prob.
	CDD18_DAY	867976.6	40796.23	21.27590	0.0000
	HDD10_DAY	444050.8	25320.26	17.53737	0.0000
	DEW	115155.7	21485.08	5.359797	0.0000
	CUST_NUMBERS	289.0941	100.3335	2.881330	0.0050
	BUS_DAYS_PERCENT	44423.55	11268.12	3.942408	0.0002
	EMPL	3485.105	1535.587	2.269559	0.0257
	BLACKOUT	-1703278.	126988.0	-13.41291	0.0000
	C	13607845	1677139.	8.113727	0.0000
	R-squared	0.966324	Mean dependent var	28115597	
	Adjusted R-squared	0.963583	S.D. dependent var	1805803.	
	S.E. of regression	344603.7	Akaike info criterion	28.41944	
	Sum squared resid	1.02E+13	Schwarz criterion	28.63589	
	Log likelihood	-1327.714	Hannan-Quinn criter.	28.50687	
	F-statistic	352.5402	Durbin-Watson stat	1.588620	
	Prob(F-statistic)	0.000000			

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GS 1000-4999 Model	<p>Dependent Variable: ENERGY_SALES_DAY Method: Least Squares Date: 11/23/10 Time: 10:29 Sample: 2002M07 2010M04 Included observations: 94 White Heteroskedasticity-Consistent Standard Errors & Covariance</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Variable</th> <th style="text-align: center;">Coefficient</th> <th style="text-align: center;">Std. Error</th> <th style="text-align: center;">t-Statistic</th> <th style="text-align: center;">Prob.</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">CDD18_DAY</td> <td style="text-align: right;">318792.5</td> <td style="text-align: right;">30450.53</td> <td style="text-align: right;">10.46919</td> <td style="text-align: right;">0.0000</td> </tr> <tr> <td style="text-align: center;">HDD10_DAY</td> <td style="text-align: right;">161668.9</td> <td style="text-align: right;">13884.27</td> <td style="text-align: right;">11.64403</td> <td style="text-align: right;">0.0000</td> </tr> <tr> <td style="text-align: center;">DEW</td> <td style="text-align: right;">92615.60</td> <td style="text-align: right;">12335.65</td> <td style="text-align: right;">7.507965</td> <td style="text-align: right;">0.0000</td> </tr> <tr> <td style="text-align: center;">BUS_DAYS_PERCENT</td> <td style="text-align: right;">60953.90</td> <td style="text-align: right;">6609.701</td> <td style="text-align: right;">9.221884</td> <td style="text-align: right;">0.0000</td> </tr> <tr> <td style="text-align: center;">BLACKOUT</td> <td style="text-align: right;">-990594.3</td> <td style="text-align: right;">70770.01</td> <td style="text-align: right;">-13.99737</td> <td style="text-align: right;">0.0000</td> </tr> <tr> <td style="text-align: center;">CUST_NUMBERS</td> <td style="text-align: right;">17411.40</td> <td style="text-align: right;">3492.564</td> <td style="text-align: right;">4.985277</td> <td style="text-align: right;">0.0000</td> </tr> <tr> <td style="text-align: center;">TREND_JAN2007</td> <td style="text-align: right;">-27562.30</td> <td style="text-align: right;">2122.412</td> <td style="text-align: right;">-12.98631</td> <td style="text-align: right;">0.0000</td> </tr> <tr> <td style="text-align: center;">EMPL</td> <td style="text-align: right;">-873.2120</td> <td style="text-align: right;">1259.387</td> <td style="text-align: right;">-0.693363</td> <td style="text-align: right;">0.4900</td> </tr> <tr> <td style="text-align: center;">C</td> <td style="text-align: right;">1272233.</td> <td style="text-align: right;">1100295.</td> <td style="text-align: right;">1.156266</td> <td style="text-align: right;">0.2508</td> </tr> </tbody> </table> <p>R-squared 0.940365 Mean dependent var 14363008 Adjusted R-squared 0.934752 S.D. dependent var 872650.3 S.E. of regression 222907.2 Akaike info criterion 27.55774 Sum squared resid 4.22E+12 Schwarz criterion 27.80125 Log likelihood -1286.214 Hannan-Quinn criter. 27.65610 F-statistic 167.5411 Durbin-Watson stat 1.898369 Prob(F-statistic) 0.000000</p>	Variable	Coefficient	Std. Error	t-Statistic	Prob.	CDD18_DAY	318792.5	30450.53	10.46919	0.0000	HDD10_DAY	161668.9	13884.27	11.64403	0.0000	DEW	92615.60	12335.65	7.507965	0.0000	BUS_DAYS_PERCENT	60953.90	6609.701	9.221884	0.0000	BLACKOUT	-990594.3	70770.01	-13.99737	0.0000	CUST_NUMBERS	17411.40	3492.564	4.985277	0.0000	TREND_JAN2007	-27562.30	2122.412	-12.98631	0.0000	EMPL	-873.2120	1259.387	-0.693363	0.4900	C	1272233.	1100295.	1.156266	0.2508
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R-squared	0.709607	Mean dependent var	7238885.
Adjusted R-squared	0.685970	S.D. dependent var	473901.5
S.E. of regression	265566.6	Akaike info criterion	27.89838
Sum squared resid	6.07E+12	Schwarz criterion	28.11484
Log likelihood	-1303.224	Hannan-Quinn criter.	27.98581
F-statistic	30.02146	Durbin-Watson stat	1.572636
Prob(F-statistic)	0.000000		

1 For all customer classes except for GS 50-999 kW employment has insignificant
 2 and/or “wrong” negative coefficient.

3

4 d) The fact that trend variables are significant and have negative coefficients is statistical
 5 proof of the declining tendency in class loads over recent history, which was
 6 noticeably reinforced by the economic down turn of 2009. THESL believes that
 7 loads are also declining as a result of growing energy conservation and CDM
 8 activities, which are difficult to quantify fully and accurately. The trend variables
 9 were originally introduced to the models during 2010 EDR to capture these two
 10 trends in recent years and THESL believes them to be appropriate for the Test Year
 11 forecast.

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1 **INTERROGATORY 13:**

2 **Reference(s):** **Exhibit K1 Tab 1 Schedule 1 page 9**

3 **Exhibit K1 Tab 4 Schedule 1 Table 1**

4

5 a) Please provide additional details as to how the forecast peak billing demand by class
6 is established (e.g. precisely what historical data is used).

7 b) Please provide the details of the trend line analysis used to project the 2011 customer
8 count for Residential, GS<50, GS 50-999 and GS 1000-4999.

9 c) Please provide the actual customer count for mid-year 2010 (if not already set out in
10 Table 1).

11

12 **RESPONSE:**

13 a) Monthly peak demand forecast for each customer class is derived based on monthly
14 energy forecast developed for a given class and monthly estimation of energy/demand
15 billing factors (billing factor reflects billed energy to billed demand ratio). The
16 estimate of the billing factors for each month of the forecasting period is based on
17 extrapolation of three years of monthly history of billing factors.

18

19 b) For the residential class number of customers, the forecast was developed in two
20 steps:

21 First, a linear trend extrapolation was used to forecast “conventional” residential
22 customer numbers. Forecasting was performed on the monthly data using Holt-
23 Winters exponential smoothing. The historic data range included residential
24 customer numbers from May 2002 to May 2010.

INTERROGATORIES OF VULNERABLE ENERGY CONSUMERS COALITION

1 Second, monthly cumulative projections of individually metered suites (both retrofits
2 and new construction) were then added to the forecast of the “conventional”
3 residential customers.

4

5 GS<50 kW and GS 50-999 kW numbers of customers were forecasted using trend
6 extrapolation. A number of trends were tested for each class to find the trend better
7 reflecting historic dynamic in the customer numbers. As a result of this analysis, a
8 simple average of linear trend and logarithmic trend was chosen for GS<50 kW class
9 as an approximation of historic tendencies. A polynomial trend of 2nd order was used
10 to predict the GS 50-999 kW class number of customers.

11

12 The average month-to-month customer number variations in GS 1,000-4,999 kW
13 class amounted to 2-3 customers over the last 24 months; the difference between the
14 highest and the lowest customer count over the last two years is 18 customers. Due to
15 these small variations, the estimation based on simple averaging was used to forecast
16 number of customers for this class.

INTERROGATORIES OF VULNERABLE ENERGY CONSUMERS COALITION

- 1 c) Table 1: Number of customers by class (2010 Bridge Year updated with actual mid-
 2 year customer numbers)

Col. 1	Col. 2	Col. 13
		2010 Bridge Year
Residential	Customers	616,394
GS <50 kW	Customers	65,799
GS 50-999 kW	Customers	12,873
GS 1000-4999 kW	Customers	509
Large Use	Customers	47
Street Lighting	Connections	162,964
Unmetered Scattered Load	Customers	1,107
	Connections	21,021
Total	Customers	696,729
	Connections	183,985
Notes		
1. Customer/Connection values are mid-year		

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1 **INTERROGATORY 14:**

2 **Reference(s): Exhibit K1 Tab 6 Schedule 2 page 1**

3

4 a) Please provide a similar schedule for 2011 based on currently (2010) approved rates.

INTERROGATORIES OF VULNERABLE ENERGY CONSUMERS COALITION

1 **RESPONSE:**

- 2 a) Table 1: Weather-normalized Revenues by Class (2011 Test year based on 2010
 3 Board-approved rates)

Col. 1	Col. 2	Col. 14
		2011 Test Year
Residential	Customer Charge	\$138,422,132
	Distribution Charge	\$78,392,004
GS <50 kW	Customer Charge	\$19,451,451
	Distribution Charge	\$48,562,520
GS 50-999 kW	Customer Charge	\$5,642,071
	Distribution Charge	\$152,495,082
	Transformer Allowance	\$(3,283,350)
GS 1000-4999 kW	Customer Charge	\$4,126,169
	Distribution Charge	\$43,406,807
	Transformer Allowance	\$(5,219,569)
Large Use	Customer Charge	\$1,643,460
	Distribution Charge	\$21,696,356
	Transformer Allowance	\$(2,976,922)
Street Lighting	Connection Charge	\$2,614,199
	Distribution Charge	\$9,539,183
Unmetered Scattered Load	Cust/Conn Charge	\$199,807
	Distribution Charge	\$3,424,504
Total	Customer Charge	\$172,099,289
	Distribution Charge	\$357,516,456
	Transformer Allowance	\$(11,479,841)
Total Distribution Revenue		\$518,135,903
Notes		
1. Based on Approved rates for each rate year		
2. Normalized to Test Year HDD and CDD		

INTERROGATORIES OF VULNERABLE ENERGY CONSUMERS COALITION

1 **INTERROGATORY 15:**

2 **Reference(s):** **Exhibit I1 Tab 1 Schedule 1**

3

4 Gains from Sale of Utility Properties: THESL disposes of obsolete facilities and real
5 estate on a periodic basis. In 2010, gains of \$5.5 million result from the unplanned
6 disposal of THESL idle properties such as Godard, Combermer and Rivalisa.

7 a) Provide the Board-Approved Other Revenue for 2010.

8 b) How was the unplanned revenue from sale of properties treated for regulatory
9 purposes in 2010 e.g. deferral account.

10 c) How did ratepayers benefit from the sale of these properties?

11 d) Provide an inventory (identification and estimated value) of other properties/real
12 estate that are not used or useful for regulatory purposes in 2011.

13 e) What regulatory treatment will be applied to these properties?

14

15 **RESPONSE:**

16 a) The Board did not specifically approve the components of proposed 2010 Other
17 Revenue, other than ordering a deemed amount of \$10.3 million (plus \$0.3 million
18 interest) representing net after-tax gains on sale of named properties to act as a
19 revenue offset. The breakdown of proposed and/or deemed 2010 Other Revenue is
20 provided below.

INTERROGATORIES OF VULNERABLE ENERGY CONSUMERS COALITION

	2010 Proposed / Deemed
Specific Service Charges (including Pole Attachment Rental)	7.0
Late Payment Charges	4.8
Other Distribution Revenue	7.0
Deemed gain on sale of named property	10.6
Other Income	-
Total Revenue Offset	29.4

1 b) The cited passage of evidence at page 5 of Exhibit I1, Tab1, Schedule 1 is accurate
2 from a financial reporting perspective but is incomplete from a regulatory
3 perspective. THESL regrets any confusion that may have resulted.
4

5 Of the \$5.5 million amount, \$4.6 represents net pre-tax gains on sale of named
6 properties. (See response to BOMA interrogatory 43c.) The net after-tax gains are
7 subject to deferral account treatment in accordance with the Board's EB-2009-0139
8 Decision. For financial reporting purposes, these sales were recognized in 2010 after
9 the outcome of the gain on sale appeals was known, but several of the actual sales
10 took place earlier.
11

12 c) Ratepayers benefited from the sale of these properties through the reduction of the
13 2010 distribution revenue requirement stemming from the Board's decision to deem a
14 revenue offset of \$10.3 plus interest representing the net after-tax gains from the sale
15 of these properties.
16

17 d) Six properties are expected to be sold in 2011. Please also refer to answer e) below.

INTERROGATORIES OF VULNERABLE ENERGY CONSUMERS COALITION

1 e) THESL is not proposing any change to the regulatory treatment for those properties.
2 Aside from the special treatment directed by the Board with respect to the Named
3 Properties, the shareholder is at risk for gains and losses on the disposal of real
4 properties.

5

6 For ease of reference, THESL's general position on revenue offsets is set out below.

7 **Other Distribution Revenue:** these forecast revenues (and costs) set out at Exhibit
8 I1, Tab 1, Schedule 3, page 1. The forecast net revenues from all of these items are
9 applied as revenue offsets.

10 **Late Payment Penalties:** these forecast revenues, set out at Exhibit I1, Tab 1,
11 Schedule 3, page 1, are applied as revenue offsets.

12 **Specific Service Charges:** these forecast revenues, set out at Exhibit I1, Tab 1,
13 Schedule 3, page 1, are applied as revenue offsets.

14 **Other Income:** forecast net revenue from Merchandise and Jobbing, and forecast
15 investment income are applied as revenue offsets. By definition, foreign exchange
16 gains or losses are predicted to be zero and therefore never become revenue offsets in
17 a forward test year, although actual foreign exchange gains and losses may be
18 realized.

19 **Disposal of Depreciable Property:** forecast net gains on sale (after costs of disposal
20 and removal) from the disposal of depreciable property are applied as revenue offsets.
21 Depreciable property includes scrap materials, vehicles, equipment and generally any
22 assets other than land and buildings for which depreciation has been allowed in
23 revenue requirement.

24 **Disposal of Land and Buildings:** land is non-depreciable and no depreciation
25 amounts related to land are allowed in revenue requirement. Net gains or losses, after

INTERROGATORIES OF VULNERABLE ENERGY CONSUMERS COALITION

1 all costs of sale, and costs of remediation where required, are to the account of the
2 shareholder and are not applied as revenue offsets.

3

4 In most cases, buildings on properties surplus to the needs of the distribution system
5 are not suitable for other purposes and are demolished prior to a further use of the
6 land; as such they detract from the value of the land but THESL does not propose to
7 recover the diminishment of the land value caused by the presence of the building.

8 Furthermore in many cases the realizable value of the land after costs of remediation
9 is less than the book value of the land, leading to a loss which is to the shareholder's
10 account. In cases where the building is suitable for other purposes and contributes to
11 the value of the property, THESL will analyze the transaction using real estate
12 appraisal information to determine separate gains and/or losses for the land and the
13 building, and apply any net gain associated with the building as a revenue offset.

14

15 The treatment of the net after tax gains on sale of the Named Properties, pursuant to
16 the Board's EB-2009-0139 Decision, is an exceptional case applying only to the
17 Named Properties.

INTERROGATORIES OF VULNERABLE ENERGY CONSUMERS COALITION

1 **INTERROGATORY 16:**

2 **Reference(s): Exhibit F1 Tab 1 Schedule 1 Table 2**

3

- 4 a) Provide a version of Table 2 that adds columns that show for 2010 Board-approved,
 5 YTD estimate, forecast and variance. Retain the as filed forecast entries in the last
 6 column (if different to current estimate).
- 7 b) Perform/provide a minimum level analysis (Minimum and Maximum) on each
 8 component of the 2011 O&M expense budget. Provide the result in tabular form.
- 9 c) Relate the results from the above to the requested increase in 2011 O&M Expenses
 10 (total \$13.7 million).

11

12 **RESPONSE:**

13 a)

**Table 1: Summary of Distribution O&M 2010 September
 YTD Actual and 2010 Bridge (\$millions)**

Description	2010 Sept. YTD Actual	2010 Bridge	Variance
Maintenance Programs	25.1	34.0	8.9
Fleet and Equipment Services	7.8	11.6	3.8
Facilities and Asset Management	17.7	25.6	7.9
Supply Chain Services	7.3	9.3	2.0
Control Center	8.5	7.7	-0.8
Operations Support	31.0	43.8	12.8
Customer Services	36.7	47.6	10.9
Customer Driven Operating	0.2	0.1	-0.1
Total	134.3	179.6	45.3

INTERROGATORIES OF VULNERABLE ENERGY CONSUMERS COALITION

1 The Board has not approved or disapproved any line item amounts for O&M, only a
2 total OM&A figure so a 2010 Board-approved column is not presented in Table 1
3 above.

4

5 b) THESL has presented in the evidence what it considers to be prudent and does not
6 have a minimum level analysis. Please also see Exhibit R1, Tab 11, Schedule 35, part
7 a).

8

9 c) See response above.

INTERROGATORIES OF VULNERABLE ENERGY CONSUMERS COALITION

1 **INTERROGATORY 17:**

2 **Reference(s):** Exhibit F1 Tab 6 Schedule 4 page 5

3

- 4 a) Provide the history of bad debt expense and the # of delinquent accounts 2008-2010
5 and the forecast for 2011.
- 6 b) Indicate how many delinquent accounts were/are estimated to be put onto a[n] arrears
7 management program.
- 8 c) How many disconnections occurred in 2008, 2009 and forecast 2010. and 2011.
- 9 d) Comment how amendments to the DSC and RSC have/will affect(ed) the forecast of
10 delinquent accounts and disconnections.

11

12 **RESPONSE:**

- 13 a) Final Bad Debt calculations occur in the year following the delinquency.

14

	2008 Actual	2009 Forecast	2010 Forecast	2011 Forecast
Bad Debt Expense	\$7.6 million	\$7.8 million	\$8.5 million	\$8.2 million
Number of account write-offs	21,455	23,564	24,487	23,621

- 15 b) In 2008, 153,000 customers received 413,000 delinquent account notifications and
16 were on an arrears management program. In 2009, 150,000 customers received
17 445,000 delinquent account notifications and were on an arrears management
18 program. In 2010, it is projected that 181,000 customers will receive 477,000
19 notifications and will be on an arrears management program. In 2011, it is forecasted

INTERROGATORIES OF VULNERABLE ENERGY CONSUMERS COALITION

1 that 165,452 customers will receive 456,723 delinquent account notifications and will
2 be on an arrears management program.

3

4 c) In 2008, there were 9,067 disconnects; in 2009 there were 9,135 disconnects; as of
5 October 31, 2010 there are 9,408, projected to be 10,500 by year end; the number of
6 disconnects forecasted for 2011 is 10,100.

7

8 d) The forecast of delinquent accounts and disconnections was done prior to
9 amendments to the DSC and RSC being finalized. It is expected that there is going to
10 be an impact, but this was not taken into account when the numbers were forecasted.
11 The delay in collection activity and disconnections may result in higher average bills
12 at the time of delinquency, potentially increasing the number of delinquent accounts
13 and the number of disconnections.

INTERROGATORIES OF VULNERABLE ENERGY CONSUMERS COALITION

1 **INTERROGATORY 18:**

2 **Reference(s):** **Exhibit F2 Tab 1 Schedule 1**

3

4 a) Provide a version of Table 2 that adds columns that show for 2010 Board-approved,
5 YTD estimate, forecast and variance. Retain the as filed forecast entries in the last
6 column (if different to current estimate).

7 b) Perform/provide a minimum level analysis (Minimum and Maximum) on each
8 component of the 2011 A&G expense budget. Provide the result in tabular form.

9 c) Relate the results from the above to the requested increase in 2011 A&G Expenses
10 (total \$7.9 M).

11

INTERROGATORIES OF VULNERABLE ENERGY CONSUMERS COALITION

1 **RESPONSE:**

2 a)

	2008 Actual	2009 Actual	2010 Bridge	2011 Test	2010 Forecast	Variance (Bridge vs Forecast)
Governance	14.9	11.9	5.0	1.9	5.0	-
Charitable Contributions	0.1	0.2	0.3	0.1	0.3	-
Finance	4.3	4.5	10.5	15.3	10.5	-
Treasury, Rates and Regulatory	9.9	12.2	13.2	14.9	13.2	-
Legal	3.1	2.9	4.5	5.0	4.5	-
Communications	4.3	3.6	3.9	4.3	3.9	-
Information Technology	21.4	22.8	23.7	24.9	23.7	-
Organizational Effectiveness & Environmental Health and Safety	9.7	12.2	11.9	15.2	11.9	-
Strategic Management	0.1	1.4	2.3	1.7	2.3	-
Total	68.9	71.7	75.4	83.3	75.4	-

INTERROGATORIES OF VULNERABLE ENERGY CONSUMERS COALITION

- 1 The Board does not approve or disapprove any specific line item within the
2 Company's claim. The Board only approves a controllable expenses budget that is
3 fully supported by the evidence, including the evidence of historical spending norms.
4 Please see responses to BOMA 38 and CCC 18 for YTD values.
5
- 6 b) THESL has presented in the evidence what it considers to be prudent and does not
7 have a minimum level analysis.
8
- 9 c) See response above.

INTERROGATORIES OF VULNERABLE ENERGY CONSUMERS COALITION

1 **INTERROGATORY 19:**

2 **Reference(s):** **Exhibit F2 Tab 5 Schedule 1 Table 2**

3 **Exhibit F2 Tab 6 Schedule 1**

4

- 5 a) Provide an apples to apples comparison of Board-Approved 2009, 2010 and 2011
6 Finance A&G costs including breakdown of Internal THESL costs, costs paid to THC
7 and totals.
- 8 b) Provide much more detail on the apparent 2010-2011 increase in Finance A&G costs,
9 including a schedule that shows Finance IFRS costs 2009-2011.
- 10 c) For IFRS driven costs relate these to the IFRS compliance plan in Q1, Tab 1 and
11 provide a table that shows a breakdown of IFRS driven costs (enterprise wide) from
12 2009-2011.
- 13 d) With regard to credit facility provide 2010 YTD actual and forecast costs and explain
14 in more detail why 2011 are significantly increased.
- 15 e) With regard to customer deposits provide a table provide a table that shows the
16 amounts forecast, actually paid out and the amount recovered in rates for the years
17 2006-2010 and forecast 2011 (\$0.8 million in RR).

18

19 **RESPONSE:**

- 20 a) The Ontario Energy Board does not approve amounts at this level of breakdown, thus
21 the information requested is not available.
- 22
- 23 b) Please see Appendix A, Table 1 and Table 2.

INTERROGATORIES OF VULNERABLE ENERGY CONSUMERS COALITION

- 1 c) In addition to the Finance A&G costs summarized in Table 2, additional IFRS-related
 2 internal labour costs were incurred by non-Finance groups, however, these costs have
 3 not been explicitly identified as they are already in approved rates.
 4
- 5 d) 2010 Year to date costs are approximately \$1.2 million, and forecast to be \$1.5
 6 million for the full year.
 7

8 As explained on page 3 of Exhibit F2, Tab 6, Schedule 1, the market-based fees
 9 THESL pays for its short-term line of credit have increased significantly due to the
 10 recent credit-crisis. THESL's previous short-term credit agreement (negotiated in
 11 2007) expired in May 2010, and the new line which was negotiated with the lending
 12 syndicate was based on market rates which were much higher than rates negotiated in
 13 the previous short-term credit agreement. All short-term borrowers who have
 14 negotiated new lines of credit have experienced similar increases. THESL has
 15 mitigated the increase somewhat by reducing the size of its syndicated short-term
 16 lines from \$500 million to \$400 million.
 17

- 18 e) Please see the following table:

Interest On Customer Deposits (\$ millions)						
	2006 Historical	2007 Historical	2008 Historical	2009 Historical	2010 Bridge	2011 Test
Amounts Forecast	n/a	n/a	n/a	n/a	0.8	0.8
Amount "actually paid out"	0.6	0.9	1.0	0.8	0.6*	n/a
Amounts included in Distribution Rates	0.0	0.0	0.0	0.0	0.8	0.8
*Note: 2010 "actually paid out" is Sept YTD						

Appendix A

Table 1: Finance A&G Expense Breakdown

Col1	Col2	Col3	Col4	Col5
1 In \$ millions	2010 Bridge	2011 Test	Variance	Comments
2 Controllership	3.4	4.0	0.6	As referred to in Exhibit F2/Tab5/S1/p4, the increase is due to additional resources required to support increasing financial requirements and expanded capital and other operational programs.
3 External Reporting	2.3	5.5	3.2	As referred to in Exhibit F2/Tab5/S1/p5, the increase is due mainly to IFRS and the increased finance reporting requirements.
4 Tax & Internal Audit	2.9	3.0	0.1	
5 Accounts payable & Payroll	1.7	1.8	0.1	
6 Total	10.2	14.4	4.2	

Table 2: Finance IFRS A&G Costs

Col1	Col2	Col3	Col4
12 In \$ millions	2009 Historical	2010 Bridge	2011 Test
13 Internal Resources	1.0	1.8	1.3
14 External Services - IFRS Advisor	1.2	1.5	0.3
15 External Services - Auditor	0.1	0.3	0.4
16 External Services - Other ¹	0.1	0.1	1.1
17 Contract Services	0.2	0.9	-
18 Other ²	0.0	0.1	-
19 Subtotal	2.6	4.8	3.1
20			
21 Total Regulatory Asset Account 1508 - IFRS Costs ³	(2.2)	(4.1)	-
22			
23 Total Finance IFRS A&G Costs	0.5	0.6	3.1

¹ Includes actuarial and recruiting costs in 2009 and 2010. In 2011, these costs relate to implementation of outstanding business process changes, systems development work and implementation of control and governance processes.

² Includes costs for communication, office supplies, and employee and IT expenses.

³ For more details please see Exhibit J1 Tab 1 Schedule 2 Appendix A and Exhibit R1 Tab 1 Schedule 89c Appendix A.

INTERROGATORIES OF VULNERABLE ENERGY CONSUMERS COALITION

1 **INTERROGATORY 20:**

2 **Reference(s):** Exhibit F2 Tab 10 Schedule 1 Table 4

3

4 a) Provide in plain english an explanation why there is a big increase in ODP costs from
5 2010-2011 – more employees to train, new programs etc.

6 b) Is this a one shot increase or will the higher level be sustained into future years.
7 Please discuss.

8

9 **RESPONSE:**

10 a) The following initiatives contribute toward the overall increase in the ODP budget:

- 11 • Trades and technical training was centralized in ODP to support workforce
12 renewal. Centralization of this training reduces the need to draw employees away
13 from capital work to deliver training.
- 14 • An increase in mandatory and legislative/compliance training.
- 15 • Accelerated requirements for driver training mandated by the MTO.
- 16 • Increased demand for legislative and mandatory trades-related training.
- 17 • Partnership with Georgian College to advance utility-based trades and technical
18 curriculum for future hiring and to upgrade technical and trades training of current
19 employees.
- 20 • Advancement of leadership programs to manage a changing workforce: Training
21 for harmonized jobs; Technology skills development; and Programs to facilitate
22 knowledge transfer of retiring employees.

23

24 b) The cost level forecast for 2011 will continue in future years as the centralization of
25 training and training initiatives will continue.

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1 **INTERROGATORY 21:**

2 **Reference(s): EB-2009-0139 Exhibit R1 Tab 11 Schedule 3 (part f and**
3 **Appendix A)**
4 **Exhibit C1 Tab 3 Schedule 1**
5

6 As described in Exhibit C1, Tab 3, Schedule 1, the balance of 33 staff members in
7 Finance, Organizational Effectiveness, Legal Services and certain other areas will be
8 transferred to THESL in 2010. Within the Finance area, the functions of corporate
9 financial reporting, business planning, financial planning and reporting, corporate tax,
10 and internal audit will move to THESL in 2010. Within the Organizational Effectiveness
11 area, the functions of strategic direction and leadership will move to THESL in 2010.
12 Within the Legal area, the functions of legal strategic direction, leadership and services
13 will move to THESL in 2010. Within the Communications area, the functions of
14 strategic direction, leadership and external communication will move to THESL in 2010.
15 Lastly, within the EHS area, the functions of strategic and direction and leadership will
16 move to THESL in 2010. Please see Appendix B of this Schedule reconciling the
17 difference between the 2009 Bridge and 2010 costs.

- 18
- 19 a) Provide a schedule that for 2009, 2010 and 2011 gives a comparison and
20 reconciliation of Shared Services Costs and headcounts by each major service area
21 and shows the transfer of services and staff from THC to THESL in 2010 and the
22 costs and staff headcount for 2011.
- 23 b) Compare the actual 2010 YTD estimate to the cost reduction forecast in Appendix A
24 in EB-2009-0139, (\$0.95m) including headcounts and payroll reductions (\$0.91m).
- 25 c) Discuss why the level of services purchased by THESL from THC in 2010 and 2011
26 will only reduce by less than 50% of the forecast (\$0.43m vs \$0.95 m).

INTERROGATORIES OF VULNERABLE ENERGY CONSUMERS COALITION

- 1 d) Provide an updated copy of Exhibit R1 Tab 11 Schedule 3 Appendix B for 2010 YTD
2 and 2011.
- 3 e) Provide a schedule that shows within THESL (compared to the 2009 base year) the
4 2010 estimate of *incremental* 2010 and 2011 O&M costs by department and category
5 (Payroll and other) and offsetting revenues resulting from the transfer of Shared
6 Services Functions into THESL 2011 costs.
- 7 f) With regard to 2010 and 2011 Services purchased from THC provide a schedule that
8 shows the continuity and costs of these services from 2006-2011.
- 9 g) With regard to 2010 and [20]11 Services sold to THC provide a schedule that shows
10 the continuity and costs of these services from 2006-2011.

11

12 **RESPONSE:**

- 13 a) Please see attached Appendix A.
- 14
- 15 b) The \$0.95M referred to is the cost reduction estimation for 2010 as it pertains to the
16 change to the Governance Responsibility Centre only from 2009 to 2010, not an
17 overall forecast of reduction in services purchased by THESL from THC between
18 2010 and 2011. The \$0.43M referred to is the overall reduction in cost of services
19 provided to THESL by THC between 2010 and 2011. As a result, the two numbers
20 are not comparable.
- 21
- 22 c) Please see response to part b) above.
- 23
- 24 d) Please see attached Appendix B.
- 25
- 26 e) Please see attached Appendix C.

INTERROGATORIES OF VULNERABLE ENERGY CONSUMERS COALITION

- 1 f) Please see attached Appendix D.
- 2
- 3 g) Please see attached Appendix E.

**Shared Services
 Toronto Hydro-Electric System Limited
 THESL Paid to THC**

\$ millions

Functional Group	2009		2010		2009 vs. 2010		2011		2010 vs. 2011	
	Historical \$	FTE #	Bridge \$	FTE #	Costs \$	FTE #	Test \$	FTE #	Costs \$	FTE #
Governance	0.92	3	1.66	2	0.74	(1)	1.18	2	(0.48)	-
Finance	7.13	27	0.74	2	(6.38)	(25)	0.79	2	0.05	-
Organization Effectiveness & EHS	0.43	1	-	-	(0.43)	(1)	-	-	-	-
Legal	0.73	4	-	-	(0.73)	(4)	-	-	-	-
Communications & Public Affairs	0.23	3	-	-	(0.23)	(3)	-	-	-	-
GRAND TOTAL	9.44	38	2.40	4	(7.03)	(34)	1.97	4	(0.43)	-

Shared Services
Toronto Hydro-Electric System Limited
THESL Paid to THC



(\$ millions)

Functional Group	2010 (Oct) YTD	2011	2011-2010 Change (\$) Inc (Dec)	2011-2010 Change (%) Inc (Dec)
	\$	\$		
Governance	1.59	1.18	(0.41)	(26%)
Finance	0.62	0.79	0.17	27%
GRAND TOTAL	2.21	1.97	(0.24)	(11%)

Toronto Hydro Electric System Limited

Incremental 2010 and 2011 O&M Costs resulting from the Transfer of Shared Services Functions into THESL

By Department

Department	Expense Category	2009	2010	2010 Est Non-THC Incremental	2010 After Adjustments	2009 vs 2010 Incremental	2009 vs 2010 Incremental%	2011	2011 Est Non-THC Incremental	2011 After Adjustments	2009 vs 2011 Incremental	2009 vs 2011 Incremental%
Communications	Payroll	141,246	626,717		626,717	(485,472)	-343.7%	570,497		570,497	(429,252)	-303.9%
	Other	87,556	248,349		248,349	(160,793)	-183.6%	224,636		224,636	(137,080)	-156.6%
Communications Total		228,802	875,066		875,066	(646,264)	-282.5%	795,133		795,133	(566,332)	-247.5%
Finance	Payroll	3,060,665	4,244,715		4,244,715	(1,184,051)	-38.7%	4,313,679		4,313,679	(1,253,014)	-40.9%
	Other	4,064,392	3,701,480		3,701,480	362,912	8.9%	3,179,894		3,179,894	884,498	21.8%
	Re-allocation to Reg Assets	(1,759,270)	(2,095,966)		(2,095,966)	336,696	-19.1%	-		-	(1,759,270)	100.0%
Finance Total		5,365,787	5,850,230		5,850,230	(484,443)	-9.0%	7,493,574		7,493,574	(2,127,786)	-39.7%
Governance	Payroll	461,842	706,277		706,277	(244,435)	-52.9%	629,673		629,673	(167,831)	-36.3%
	Other	458,403	954,620		954,620	(496,216)	-108.2%	551,590		551,590	(93,186)	-20.3%
Governance Total		920,245	1,660,897		1,660,897	(740,651)	-80.5%	1,181,263		1,181,263	(261,017)	-28.4%
Legal	Payroll	485,076	1,546,925	739,616	807,309	(322,233)	-66.4%	1,021,483	508,286	513,196	(28,120)	-5.8%
	Other	249,667	1,167,728	547,817	619,911	(370,244)	-148.3%	637,145	322,193	314,952	(65,285)	-26.1%
Legal Total		734,743	2,714,653	1,287,433	1,427,220	(692,477)	-94.2%	1,658,627	830,479	828,149	(93,406)	-12.7%
Organization Effectiveness	Payroll	236,952	314,174		314,174	(77,223)	-32.6%	432,674		432,674	(195,722)	-82.6%
	Other	190,960	381,944		381,944	(190,983)	-100.0%	278,469		278,469	(87,509)	-45.8%
Organization Effectiveness Total		427,912	696,118		696,118	(268,206)	-62.7%	711,143		711,143	(283,231)	-66.2%
Grand Total		7,677,489	11,796,963	1,287,433	10,509,530	(2,832,041)	-36.9%	11,839,740	830,479	11,009,261	(3,331,772)	-43.4%
Amounts Recovered from THC		2,155,659			107,339	(2,048,321)	-95.0%			91,230	(2,064,429)	-95.8%
Net Amount		5,521,830			10,402,192	(4,880,362)	-88.4%			10,918,031	(5,396,201)	-97.7%

Shared Services
Toronto Hydro-Electric System Limited
THESL Paid to THC



\$ Millions

Functional Group	2006 Historical Year	2007 Historical Year	2008 Historical Year	2009 Historical Year	2010 Bridge Year	2011 Test Year
	\$	\$	\$	\$	\$	\$
Governance	3.80	2.89	1.31	0.92	1.66	1.18
Finance	7.27	3.89	5.01	7.13	0.74	0.79
Organization Effectiveness & EHS	6.07	1.01	0.60	0.43	-	-
Legal	2.96	0.36	0.64	0.73	-	-
Communications & Public Affairs	4.06	0.12	0.24	0.23	-	-
Information Technology	18.67	-	-	-	-	-
Regulatory	4.55	-	-	-	-	-
Treasury	3.88	-	-	-	-	-
GRAND TOTAL	51.25	8.27	7.79	9.44	2.40	1.97

Summary Continuity Schedule for THC

THESL Sold to THC						
Functional Group	2006 Actual	2007 Actual	2008 Actual	2009 Actual	2010 Bridge	2011 Test
	\$	\$	\$	\$	\$	\$
Governance	-	-	-	-	-	-
Chief Operating Officer	-	-	-	-	-	-
Distribution Systems	-	-	-	-	-	-
Asset Management	2.88	0.51	0.62	0.56	0.08	0.06
Business Transformation	-	-	-	-	-	-
Distribution Grid Management	-	-	-	-	-	-
Customer Service	-	-	-	-	-	-
Finance	-	0.08	0.03	0.03	-	-
Treasury	-	0.54	0.46	0.62	-	-
Organization Effectiveness	-	0.10	0.10	0.20	-	-
Legal	-	0.18	0.02	0.02	-	-
Communications	-	0.18	0.30	0.25	-	-
ITS & Management	-	0.36	0.48	0.48	0.03	0.03
Environmental, Health, & Safety	-	-	-	-	-	-
Conservation Demand Management	-	-	-	-	-	-
Rates	-	-	-	-	-	-
Regulatory Affairs	-	-	-	-	-	-
GRAND TOTAL	2.88	1.94	1.99	2.16	0.11	0.09

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1 **INTERROGATORY 22:**

2 **Reference(s):** **Exhibit C1 Tab 2 Schedule 3- 1**

3 **Exhibit C1 Tab 3 Schedule 1 Appendix B**

4

5 a) Provide a summary continuity Schedule for the services and costs of services sold to
6 THESI from 2006-2011.

7 b) Reconcile the 2011 costs to the draft THESL/THESI service schedules.

8 c) Provide explanations for any material changes in services or service levels from 2009
9 to 2010 and 2011.

10

11 **RESPONSE:**

12 a) Please see Appendix A for the continuity schedule.

13

14 b) 2011 costs in Exhibit C1, Tab 3, Schedule 1, Appendix B to the draft THESL/THESI
15 SLA have been reconciled. Please see the schedule below:

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THESL Sold to TH Energy	
Functional Group	2011
	\$
Governance	-
Chief Operating Officer	-
Distribution Systems	-
Asset Management	0.16
Business Transformation	-
Distribution Grid Management	-
Customer Service	0.27
Finance	0.48
Treasury	0.06
Organization Effectiveness	0.05
Legal	0.06
Communications	-
ITS & Management	0.06
Environmental, Health, & Safety	0.03
Conservation Demand Management	-
Rates	-
Regulatory Affairs	-
TOTAL	1.17
Other items from SLA:	
Fleet Services	0.40
	1.57

- 1 c) Please see Appendix B for the schedules that provide explanations for the material
- 2 changes.

Summary Continuity Schedule for TH Energy

THESL Sold to TH Energy						
Functional Group	2006 Actual	2007 Actual	2008 Actual	2009 Actual	2010 Bridge	2011 Test
	\$	\$	\$	\$	\$	\$
Governance	-	-	-	-	-	-
Chief Operating Officer	-	-	-	-	-	-
Distribution Systems	-	-	-	-	-	-
Asset Management	0.45	0.15	0.18	0.12	0.15	0.16
Business Transformation	-	-	-	-	-	-
Distribution Grid Management	-	-	-	-	-	-
Customer Service	-	-	-	-	-	0.27
Finance	-	0.10	0.09	0.08	0.30	0.48
Treasury	-	0.25	0.36	0.41	0.05	0.06
Organization Effectiveness	-	-	0.08	-	0.05	0.05
Legal	-	0.08	0.08	0.06	0.10	0.06
Communications	-	0.02	0.09	0.10	-	-
ITS & Management	-	0.36	0.55	0.57	0.45	0.06
Environmental, Health, & Safety	-	0.01	-	0.08	0.05	0.03
Conservation Demand Management	-	-	-	-	-	-
Rates	-	-	-	-	-	-
Regulatory Affairs	-	-	-	-	-	-
GRAND TOTAL	0.45	0.97	1.43	1.42	1.15	1.17

in Millions of Dollars

THESL Services Sold to THC	2009	2010	Variance	Explanation
Asset Management	0.56	0.08	(0.49)	Variance is mainly due to the merging of the majority of THC into THESL
Finance	0.03	-	(0.03)	Immaterial
Treasury	0.62	-	(0.62)	Variance is mainly due to the merging of the majority of THC into THESL
Organization Effectiveness	0.20	-	(0.20)	Variance is mainly due to the merging of the majority of THC into THESL
Legal	0.02	-	(0.02)	Immaterial
Communications	0.25	-	(0.25)	Variance is mainly due to the merging of the majority of THC into THESL
ITS & Management	0.48	0.03	(0.45)	Variance is mainly due to the merging of the majority of THC into THESL

in Millions of Dollars

THESL Services Sold to TH Energy	2009	2010	Variance	Explanation
Asset Management	0.12	0.15	0.03	Immaterial
Finance	0.08	0.30	0.22	Variance is mainly due to the merging of the majority of THC finance into THESL
Treasury	0.41	0.05	(0.36)	Variance is mainly due to decrease in insurance allocation
Organization Effectiveness	-	0.05	0.05	Immaterial
Legal	0.06	0.10	0.04	Immaterial
Communications	0.10	-	(0.10)	Immaterial
ITS & Management	0.57	0.45	(0.12)	Immaterial
Environmental, Health, & Safety	0.08	0.05	(0.03)	Immaterial

in Millions of Dollars

THESL Services Sold to THC	2009	2011	Variance	Explanation
Asset Management	0.56	0.06	(0.50)	Variance is mainly due to the merging of the majority of THC into THESL
Finance	0.03	-	(0.03)	Immaterial
Treasury	0.62	-	(0.62)	Variance is mainly due to the merging of the majority of THC into THESL
Organization Effectiveness	0.20	-	(0.20)	Variance is mainly due to the merging of the majority of THC into THESL
Legal	0.02	-	(0.02)	Immaterial
Communications	0.25	-	(0.25)	Variance is mainly due to the merging of the majority of THC into THESL
ITS & Management	0.48	0.03	(0.46)	Variance is mainly due to the merging of the majority of THC into THESL

in Millions of Dollars

THESL Services Sold to TH Energy	2009	2011	Variance	Explanation
Asset Management	0.12	0.16	0.04	Not within threshold and therefore considered not material
Customer Service	-	0.27	0.27	Variance is mainly due to Consolidated Billing processing and clerical work allocated to TH
Finance	0.08	0.48	0.40	Variance is mainly due to the merging of the majority of THC finance into THESL
Treasury	0.41	0.06	(0.36)	Variance is mainly due to decrease in insurance allocation
Organization Effectiveness	-	0.05	0.05	Immaterial
Legal	0.06	0.06	0.00	Immaterial
Communications	0.10	-	(0.10)	Immaterial
ITS & Management	0.57	0.06	(0.50)	Variance is mainly due to substantial completion of the IT investments related to THESI
Environmental, Health, & Safety	0.08	0.03	(0.05)	Immaterial

in Millions of Dollars

THESL Services Sold to THC	2010	2011	Variance	Explanation
Asset Management	0.08	0.06	(0.01)	Immaterial
ITS & Management	0.03	0.03	(0.00)	Immaterial

in Millions of Dollars

THESL Services Sold to TH Energy	2010	2011	Variance	Explanation
Asset Management	0.15	0.16	0.01	Immaterial
Customer Service	-	0.27	0.27	Variance is mainly due to Consolidated Billing processing and clerical work allocated to TH Energy
Finance	0.30	0.48	0.18	Variance is mainly due to the allocation of Finance - Unregulated services in 2011 and the inclusion of Finance System Support in 2011
Treasury	0.05	0.06	0.01	Immaterial
Organization Effectiveness	0.05	0.05	(0.00)	Immaterial
Legal	0.10	0.06	(0.04)	Immaterial
Communications	-	-	-	Immaterial
ITS & Management	0.45	0.06	(0.38)	Variance is mainly due to substantial completion of the IT investments related to THESL
Environmental, Health, & Safety	0.05	0.03	(0.02)	Immaterial

in Millions of Dollars

THESL Services Sold to THESL Unregulated	2010	2011	Variance	Explanation
Asset Management	-	0.01	0.01	Immaterial
Customer Service	-	0.00	0.00	Immaterial
Finance	-	0.47	0.47	Variance is mainly due to Finance related costs allocated to THESL Unregulated in 2011
Organization Effectiveness	-	0.00	0.00	Immaterial
Legal	-	0.01	0.01	Immaterial
ITS & Management	-	0.12	0.12	Variance is mainly due to Finance related costs allocated to THESL Unregulated in 2011

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1 **INTERROGATORY 23:**

2 **Reference(s): Exhibit D1 Tab 8 Schedule 8-1 Table 1**

3

- 4 a) Provide a version of Table 1 that separates non-discretionary and discretionary
5 projects and costs in each component of the 2011 IT Capital portfolio.
6 b) Perform a minimum level analysis on each component of the 2011 IT capital
7 portfolio. Provide the result in tabular form.
8 c) Relate the results above to the requested \$4M increase in 2011 IT capital.

9

10 **RESPONSE:**

- 11 a) All the programs identified under the IT portfolios are non discretionary as they fully
12 support THESL obligation to provide safe, reliable electricity service.
13
14 b) THESL's evidence presents the prudent level of necessary investment. THESL does
15 not employ a minimum level analysis methodology.
16
17 c) The requested \$4M increase in 2011 IT capital is primarily due to the increased
18 investment in our Customer Operations and Distribution Operations portfolios. In the
19 Customer Operations portfolio, THESL plans to increase investment in the Customer
20 Satisfaction program; with enhancements to the customer information system, and the
21 Smart Meter ODS program; enabling the mandated TOU and Spot Market Pricing for
22 mid-Commercial and Industrial customer.

23

24 In the Distribution Operations portfolio, THESL plans to increase investment in the
25 Distribution Management Application program to support three new initiatives
26 (OMS/DMS Technical version upgrade, Energy Management system and

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- 1 Transformer Smart Meters/Power Line Monitoring/Self-Healing Switching). THESL
- 2 also plans to increase investment in the Distribution Support Service Applications
- 3 program in tools such as Fleet Management and Supply Chain Management.

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1 **INTERROGATORY 24:**

2 **Reference(s):** **Exhibit D1 Tab 3 Schedule 1 page 2**

3

4 Please confirm that the reference to the “Flat Rate Water Heater Exit Program” is
5 synonymous with the “Flat Rate Water Heater Conversion Program” referred to in the
6 EB-2009-0139 Application. If this assertion is incorrect, please describe the parameters
7 and costs of the “Flat Rate Water Heater Exit Program”.

8

9 **RESPONSE:**

10 Yes, the “Flat Rate Water Heater Exit Program” and the “Flat Rate Water Heater
11 Conversion Program” are synonymous.

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1 **INTERROGATORY 25:**

2 **Reference(s):** **Exhibit D1 Tab 3 Schedule 2 page 6**

3

4 Capital investment in poles and wires is expected to increase by \$322.2 million or 13.4
5 percent from \$2,412.9 million in 2009 to \$2735.1 million in 2011. The increase is
6 primarily due to the need to rehabilitate poles to counter the worsening SAIFI trend,
7 obsolete equipment and obsolete system designs that do not conform to the current
8 standards. Additional information about these investments can be found in Exhibit D1,
9 Tab 8, Schedule 1.

- 10 a) THESL asserts that the increase in capital investment in poles and wires is due, in
11 part, to obsolete equipment and obsolete system designs that do not conform to the
12 current standards. Is it the case that, while obsolete in the sense that the equipment
13 and designs could not be used in new projects, they are acceptable as grandfathered
14 equipment and designs, or are they actually in violation of current standards to the
15 extent that immediate replacement is required? Please discuss.
- 16 b) In relation to the answer in part a) please quantify the spending on poles and wires
17 that is driven solely by the obsolescence of the equipment and system design relative
18 to the current standards, i.e. the equipment as designed and installed is, despite its
19 obsolescence, working within acceptable parameters (relative to when it was designed
20 and installed).

21

22 **RESPONSE:**

- 23 a) There are instances where THESL's equipment and designs are in violation of current
24 standards. Ultimately, these non-standard equipment and designs contribute to the
25 worsening SAIFI trend therefore a proactive replacement approach is taken in
26 problematic areas in order to counter the trend. This is done by implementing more

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- 1 reliable equipment (such as insulated primary details on transformer poles) and
2 improved designs (such as remote switches on feeder tie points). Maintaining the
3 non-standard equipment and designs is not acceptable as grandfathered practice due
4 to their negative impact on reliability.
5
- 6 b) Spending for the standardization portfolio is \$4.7 million as noted in Exhibit D1, Tab
7 9, Schedule 1. This spending consists primarily of switches, transformers and poles.
8 Although projects related to this portfolio center on eliminating non-standard system
9 designs and assets, the projects also address problematic areas in order to counter the
10 worsening SAIFI trend.

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1 **INTERROGATORY 26:**

2 **Reference(s):** Exhibit D1 Tab 3 Schedule 2 page 7

3

4 The increase in equipment assets from \$149.0 million in 2009 to \$169.7 million in 2011
5 amounts to \$20.7 million or 13.9 percent and is mainly due to an increase in the fleet
6 complement to support the capital work program and as part of the “Greening the Fleet”
7 fleet replacement program.

8 a) There appears to VECC to be no documentation in the filing providing a
9 description and business case for the “Greening the Fleet” fleet replacement
10 program. Please provide the documentation describing and setting out the
11 business case for the “Greening the Fleet” fleet replacement program.

12

13 **RESPONSE:**

14 THESL has not conducted a business case for this initiative because it has been
15 undertaken as part of the company’s commitment to become carbon neutral by 2020
16 rather than for purely financial reasons. This is described in Exhibit C2, Tab 4, Schedule
17 1 at page 3, as follows: “In support of THESL’s environmental strategy to be carbon
18 neutral by 2020, FES has adopted purchasing and operating initiatives intended to reduce
19 carbon emissions, including:

- 20
- 21 • Continued introduction of “greener” technology to THESL fleet, for example, by
22 a purchase of approximately 30 hybrid vehicles in 2010. FES is currently
23 investigating purchase of biodiesel-fuelled trucks for planned vehicle change out;
 - 24 • Ongoing use of alternative low emission fuels such as ethanol and biodiesel fuels;
25 and
 - 26 • On-going study of plug-in hybrid electric vehicles (“PHEVs”) and electric
vehicles (“EVs”).

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- 1 While these initiatives may represent an upfront premium for capital purchase expense,
2 they also drive THESL's commitment to a greener fleet.”
3
4 THESL does consider the premium associated with specific types of vehicles in
5 determining whether to acquire conventional or “green” technology. See the response to
6 BOMA Interrogatory 9 (Exhibit R1, Tab 3, Schedule 9).

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1 **INTERROGATORY 27:**

2 **Reference(s):** Exhibit D1 Tab 7 Schedule 1 page 8

3

4 THESL plans, designs and constructs distribution system assets in accordance with
5 approved standards. The standards are developed by THESL to achieve the objectives of
6 high public and employee safety, optimal reliability considering cost and to comply with
7 the requirements of the Electrical Safety Authority (“ESA”).

8 a) The excerpt initially suggests to VECC that THESL acts in accordance with approved
9 standards that are externally developed and imposed on THESL; but then the excerpt
10 goes on to state that THESL develops the standards to, in part, comply with the
11 requirements of the ESA. Please describe the extent to which the standards internally
12 developed by THESL reflect the requirements imposed on it by external authorities
13 like the ESA, and the extent to which the objectives of high public and employee
14 safety and optimal reliability cause THESL’s standards to exceed the requirements
15 imposed by the ESA and other authorities. To the extent possible please discuss the
16 cost of exceeding the requirements imposed on THESL by the ESA and other
17 authorities.

18

19 **RESPONSE:**

20 Prior to the change in the *Electricity Act, 1998*, Ontario Regulation 22/04 – Electrical
21 Distribution Safety on or after February 11, 2004, THESL planned, designed and
22 constructed distribution system assets in accordance with approved standards developed
23 by THESL in accordance with the *Electricity Act, 1998*.

24

25 With the introduction of the change in *Electricity Act, 1998* with the inclusion of Ontario
26 Regulation 22/04 – Electrical Distribution Safety on or after February 11, 2004, the

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1 regulation applies with respect to THESL distribution system as far as the ownership
2 demarcation point and no further. This Regulation, and not the Electrical Safety Codes,
3 applies to THESL. THESL is required to use approved plans, standard design drawings
4 and standard design specifications (collective known as approved standards) for all new
5 installations as required by the Authority (ESA) in Ontario Regulation 22/04. Upon
6 reviewing of the approved standards, the Authority (ESA) will approve and provide a
7 certificate of approval to THESL.

8

9 The approved standards do not apply with respect to work on an electrical installation
10 that involves the replacement of one piece of electrical equipment with another piece of
11 electrical equipment of the same voltage and characteristics typically found in the legacy
12 standards. The legacy standards are not part of the approved standards under Ontario
13 Regulation 22/04. THESL, therefore, identified the standardization requirements to
14 gradually upgrade these legacy, non-compliant assets to current approved standards.

15

16 As stated in Exhibit D1, Tab 9, Schedule 1, the costs of exceeding the requirements
17 imposed by Ontario Regulation 22/04 are related to the requirements of carrying legacy
18 and/or obsolete inventory items to support the legacy installations, different operating and
19 maintenance procedures which in part are addressed by the Standardization portfolios and
20 cannot be easily quantified. However, THESL is currently carrying an inventory of slow
21 moving and/or obsolete materials totaling \$4.3 million dollars in 2010 Bridge Year as
22 shown in Exhibit C2, Tab 3, Schedule 2.

Performance Measure	2008 Actual	2009 Actual	2010 Bridge	2011 Test
Slow Moving/Obsolete Inventory Value	\$ 5M	\$ 4M	\$ 4.3M	\$ 4.5M

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1 **INTERROGATORY 28:**

2 **Reference(s):** Exhibit D1 Tab 9 Schedule 5-2 page 1

3

4 THESL can recover 100 percent of all relocation costs related to Transit City work, since
5 the TTC is not a road authority as defined in the *Public Service Works on Highways Act*,
6 R.S.O 1990, Chapter P.49.

7 a) Please confirm that the above excerpt means that all relocation costs related to Transit
8 City work in any period, including the test year, have a net cost of 0, such that Transit
9 City work will never have a revenue requirement impact. If this assertion is incorrect,
10 please describe the actual arrangement between THESL and the City with respect to
11 capital contributions towards Transit City related work.

12

13 **RESPONSE:**

14 a) All relocation costs related to Transit City work is 100 percent recoverable in any
15 period including the test year.

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1 **INTERROGATORY 29:**

2 **Reference(s): Exhibit K1 Tab 1 Schedule 2**

3 **Exhibit K1 Tab 8 Schedules 1 & 2**

4

5 a) The text in Tab 1 makes reference to the forecast wholesale electricity price being
6 based on a weighted average of the forecast RPP rates and the HOEP plus Global
7 Adjustment rates. However, Tab 8 only makes reference to the HOEP and Global
8 Adjustment. Please reconcile.

9 b) If not provided as part of the response to part (a) please indicate the portion of
10 THESL's sales that are RPP vs. non-RPP.

11 c) Please provide a schedule that sets out the details supporting the \$0.0725 / kWh price
12 use for wholesale energy purchases for 2011.

13 d) Please update the Cost of Power values used using the October 2010 RPP report.

14 e) What is the basis for the 2011 rates used for Network Service, Line Connection and
15 Transformer Connection in Tab 8?

16 f) What is the basis for the H1 LV costs included for 2011?

17 g) Please provide a schedule that shows the derivation of the "Transmission" portion
18 (\$258.7 M) of the 2011 Cost of Power.

19

20 **RESPONSE:**

21 a) The value in Exhibit K1 Tab 8 Schedule 2 row 7 Col. 8 entitled "HOEP (incl GA)
22 (\$/kWh)" of \$0.0725/kWh represents the forecast wholesale electricity price based on
23 a weighted average of the forecast RPP rates and the HOEP plus Global Adjustment
24 rates. (A reconciliation is not required.) The rate of \$0.0725/kWh was calculated
25 based on a kWh split between RPP and Non-RPP customers of 37.1% and 62.9%,
26 respectively, and used an average RPP rate of \$0.07549/kWh, an average HOEP price

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- 1 of \$0.04304/kWh and a global adjustment rate of \$0.02772/kWh.
 2 $\$0.0725/\text{kWh} = ((37.1\% * \$0.07549/\text{kWh}) + ((62.9\% * (\$0.04304/\text{kWh} +$
 3 $\$0.02772/\text{kWh}))$
 4
 5 b) The portions of THESL’s sales that are RPP versus non-RPP are provided in part (a)
 6 above.
 7
 8 c) The calculation of the \$0.0725/kWh price used for the wholesale energy purchases
 9 for 2011 is provided in part (a).
 10
 11 d) The updated 2011 Test Cost of Power values, using the “October 18, 2010 Regulated
 12 Price Plan Price Report – November 1, 2010 to October 31, 2011” and the “October
 13 5, 2010 Ontario Wholesale Electricity Market Price Forecast – For the period
 14 November 1, 2010 to April 30, 2012”, are as follows:

Table 1: Updated Cost of Power

Col. 1	Col. 2
(\$ Millions)	2011 Test
Energy	1,661.0
Transmission	258.7
WMS	118.4
RRA	32.9
Own use deduction	(1.5)
Total COP	2,069.5

- 18 e) The basis for the 2011 rates used for Network Service, Line Connection Service and
 19 Transformer Connection Service in Tab 8 is the OEB-approved Hydro One Networks
 20 Inc. rates effective January 1, 2010 of \$2.97/kW, \$0.73/kW and \$1.71/kW,

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1 respectively, increased by 8% as an estimate of the increases expected in 2011 to
 2 \$3.21/kW, \$0.79/kW and \$1.85/kW, respectively.

3

4 f) For the 2011 Test Year, Hydro One (HO) low voltage charges have been estimated at
 5 \$196,800 based upon the 2009 fiscal year actual costs of \$197,000.

6

7 g) The derivation of the 2011 Test Year Cost of Power Transmission component is as
 8 follows:

9

10

Table 2: Cost of Power - Transmission

11

Col. 1	Col. 2	Col. 3.	Col. 4
	Units (kW)	Rate (\$/kW)	2011 Test \$ Millions
Network service	45,354,351	3.21	145.6
Transformation connection service	45,888,120	1.85	84.8
Line connection service	44,762,681	0.79	35.4
Low voltage switchgear (LVSG) credit, note 1			(8.5)
HO low voltage charges			0.2
Agincourt shortfall load transfer			0.3
HO MSP costs			0.9
Total Transmission			258.7

12

Note 1: The 2011 Test Year LVSG credit is based upon the OEB-approved 2010 actual

13

increased by 4% as an estimate of the increase expected in 2011.

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1 **INTERROGATORY 30:**

2 **Reference(s):** **Exhibit J1 Tab 2 Schedule 4 -Working Capital Allowance**

3 **Exhibit D1 Tab 14 Schedule 1 Table 1**

4

5 a) Has THESL updated its lead lag study to reflect the GST/HST change that occurred
6 in July 2009? If not why not.

7 b) Provide a copy of the EB-2007-0680 approved lead lag study.

8 c) Update the study to show changes since 2007 including the GST/HST change in
9 2009.

10 d) Reconcile the result or explain the differences relative to Exhibit J1 Tab 2 Schedule 4.

11 e) Update the 2011 WC allowance as necessary.

12

13 **RESPONSE:**

14 a) THESL has not updated the study since the was study filed in EB-2007-0680.

15 THESL has updated the values that are used in the calculations based on the report to
16 reflect the HST rate. THESL intentionally held off in updating its lead lag study
17 because, in general, a rigorous lead lag study should be based on at least 12 months of
18 revenue and expense data. Since the HST came into force in July 2010, THESL
19 intends to update its lead lag study once the required data is available.

20

21 b) Please see response to Board Staff Interrogatory 79 at Exhibit R1, Tab 1, Schedule
22 79.

23

24 c) Please see response to part (a) above.

25

26 d) Not applicable. Please see response to part (a) above.

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- 1 e) Not applicable. Please see response to part (a) above.

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1 **INTERROGATORY 31:**

2 **Reference(s):** **Exhibit D1 Tab 8 Schedule 10 page 3**

3

4 The condition of THESL assets was originally established based on an Asset Condition
5 Assessment (ACA) performed by THESL in 2006. In 2009, an assessment was
6 performed using the Health Index (HI) methodology applied within THESL's HI
7 Calculator. This tool is used to derive and develop HI scores for distribution system
8 assets. By comparing results from 2006, 2009 and equipment performance data, it was
9 concluded that the current ACA process is significantly improved when compared to the
10 process from 2006. This can be attributed to the use of refined formulas for determining
11 an HI rating, improved data granularity and a larger pool of condition data from the field.
12 HI calculations are consolidated within the application and concentrated efforts have
13 been made to modify network asset inspection practices to include end-of-life condition
14 information.

15 a) Please confirm that the change in Asset Condition Assessment methodology from
16 2006 to 2009 as described on page 3 (excerpted above) was incorporated into the
17 Asset Condition Assessment that underpinned the EB-2009-0139 Application. If this
18 assertion is incorrect, please describe any material differences in methodology
19 between the Asset Condition Assessment underpinning the EB-2009-0139
20 Application and the Asset Condition Assessment underpinning the current (EB-2010-
21 0142) application.

22

23 **RESPONSE:**

24 a) Yes, the change in Asset Condition Assessment methodology from 2006 to 2009, as
25 described on page 3 was incorporated into the Asset Condition Assessment that
26 underpinned the EB-2009-0139 Application.

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1 **INTERROGATORY 32:**

2 **Reference(s):** **Exhibit D1 Tab 8 Schedule 10 page 6 and Appendix A**
3 **EB-2009-0139, Exhibit D1 Tab 8 Schedule 10 Appendix A**
4

5 1.6 Comparison to 2010-2019 Plan
6

7 This report can be considered a living document. THESL's capital plans depend on a
8 number of factors, including (among other things) the economy, Ontario Energy Board
9 direction, provincial legislation, current industry practice, analytical tools and availability
10 of condition data. THESL is constantly gathering and analyzing new data, and as a
11 result, detailed year-to-year plans will deviate to a certain degree based upon current
12 conditions and special and/or unforeseen circumstances. Despite this, the long-term
13 direction is expected to remain in alignment with this document. For the reasons outlined
14 above, the ten year plan presented here represents current THESL's assessment of the
15 distribution systems projected needs for the next decade. A comparison of the current ten
16 year plan and the version filed in August 2009 is provided in Figure 1 below.

17
18 Figure 1 – Comparison of the new and old 10-year plan [omitted]
19

20 As shown above, the overall spending trend is similar to the previous plan. The relatively
21 large spread between the 2012 investments illustrates the amount of spending required to
22 'catch up' to the intended plan line. Deviations in individual portfolios will be explained
23 throughout this document.
24

25 a) The citation above suggests that, in comparing the current 2011-2020 Plan to the
26 previously filed 2010-2019 Plan, while there will be deviation to a certain degree, the

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1 long term direction is expected to remain in alignment, and notes that the overall
2 spending trend in the current plan is similar to the previous plan.

3
4 However, review of Appendix A to the current Exhibit D1 Tab 8 Schedule 10, the
5 summary of the 2011 to 2020 Ten Year Plan, in comparison to the equivalent
6 Appendix A from EB-2009-0139 (Exhibit D1 Tab 8 Schedule 10) shows that the 10
7 year proposed spending in the current 2011-2020 Plan is \$3,811.2M, compared to
8 only \$3,295.1 in the previously filed 2010-2019 Plan. Specific to the proposed
9 Sustaining Capital Expenditures, the current 2011-2020 Plan proposed spending is
10 \$2,282.9M, compared to \$1,056.5M in the 2010-2019 Plan, a difference of \$1 Billion
11 in sustaining capital investment alone. Please detail the cause(s) of the material
12 changes between the two 10 Year Plans, with reference to the 22 different portfolios
13 described in Appendix A from EB-2009-0139 (Exhibit D1 Tab 8 Schedule 10).

14

15 **RESPONSE:**

16 Besides the “catch up” as described in the evidence, the difference in the two Ten-Year
17 plans are captured in the Sustaining Capital Totals with the material changes being in
18 Portfolios 2, 3 and 4 as seen in Appendix A.

19

20 New Rear Lot projects and the inclusion of Lead Cable replacement projects account for
21 the increase in portfolio 2. New Overhead System Rebuilds replacing old Box Design
22 accounts for the increase in portfolio 3. The refurbishment of the Network Vaults as
23 captured in our recent ACA accounts for the increase in portfolio 4. These are all
24 initiatives that were introduced in the 2010-2019 Plan as new Emerging Requirements
25 and are now included within the sustaining capital investment explaining the difference
26 identified in the interrogatory.

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1 **INTERROGATORY 33:**

2 **Reference(s):** **Exhibit D1 Tab 8 Schedule 10 page 11**

3

4 To determine capital needs for existing distribution assets, in 2008, THESL introduced a
5 risk-based approach to assist engineers in identifying the optimal intervention time for
6 each asset based on asset condition, risk, criticality, and life-cycle costs of asset
7 ownership. This methodology is referred to as the Feeder Investment Model (FIM) and
8 has been used to identify some of the Underground Sustaining Capital projects that need
9 to be executed [to] mitigate risk to our plant, staff and the public.

10

11 a) Please confirm that the “risk-based approach” described on page 11 was used in
12 developing the 10 Year Plan that was presented in EB-2009-0139. If that assertion is
13 incorrect, please describe how the “risk based-approach” introduced in 2008 was
14 incorporated into the Capital Plan underpinning the EB-2009-0139, and how it differs
15 from the approach used in the Capital Plan underpinning the current (EB-2010-0142)
16 application.

17

18 **RESPONSE:**

19 a) The Risk-Based Approach described on page 11 within the Long Term Electrical
20 Distribution Capital Plan (Exhibit D1, Tab 8, Schedule 10) was utilized as part of the
21 Capital Plan (EB-2009-0139) development process, alongside other resources and
22 processes. This Risk-Based Approach was applied in the same manner for the current
23 Capital Plan (EB-2010-0142).

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1 **INTERROGATORY 34:**

2 **Reference(s):** Exhibit D1 Tab 8 Schedule 10 page[s] 12 and 16, Figure 3 and
3 **Table 3**

4

5 [Re Underground Direct Buried Cable] For practical reasons (planned outages, resource
6 requirements, permits, and spending shock) it is not feasible to undertake this large
7 investment within a single year. Therefore, THESL proposes to spread this spending
8 over several years.

9 a) Please provide the full definition of the acronym EOL as it is used in the 2011-2020
10 Electrical Distribution Capital Plan.

11 b) Please provide a definition of the term “spending shock” as it was used by THESL in
12 the development of its Capital Plan.

13 c) The EOL assessment of THESL’s Underground Direct Buried Cable suggested a
14 2011 Capital Budget of approximately \$200M. However, THESL asserts, in
15 consideration of planned outages, resource requirements, permits, and spending
16 shock, the total proposed 2011 budget for this area of spending is \$62.5M. Please
17 discuss and quantify the constraint that each of these factors represented. VECC is
18 particularly interested in (but not exclusively so) how the concept of spending shock
19 influenced THESL’s request for approved capital spending, and any thresholds
20 against which THESL measures spending shock.

21

22 **RESPONSE:**

23 a) EOL is the acronym for End-Of-Life. It is used in the Capital Plan on page 12 when
24 the plan speaks of the Direct-Buried Cable assets that have surpassed or are at their
25 end of useful life and require replacement and/or rehabilitation.

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- 1 b) Spending Shock refers to the impact on distribution rates should THESL embark on
2 replacement of all deteriorating assets immediately that are at their end-of-life.
3
- 4 c) Figure 3 in the Capital Plan shows \$200M of Underground Direct-Buried Cable that
5 has reached the end of useful life. This cost of \$200M (cable only) along with other
6 costs associated with this portfolio were spread over six years to lessen the impact in
7 required resources, the burden on SAIDI impacts due to planned outages, the number
8 of permits applied for at the city and rate shock to the customer. The impact of each
9 constraint is listed in order.

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1 **INTERROGATORY 35:**

2 **Reference(s):** **Exhibit C1 Tab 6 Schedule 1**

3 **Exhibit C1 Tab 4 Schedule 1**

4 **Exhibit F1 Tab 1 Schedule 2**

5

6 The above three references describe THESL's Asset Management Approach, Business
7 Planning Process and Maintenance Approach, the products of which are illustrated in the
8 application and summarized at Exhibit D1 Tab 7 Schedule 1 page 16 Table 2 (total
9 Capital Budget of \$498M) Exhibit F1 Tab 1 S1 page 3 (total Distribution OM&A Budget
10 of \$193.3M) and Exhibit F2 Tab 1 Schedule 1 page 2 Table 1 (total Administrative and
11 General expenses of \$83.2M).

12

13 In EB-2009-0096 at Exhibit H Tab 7 Schedule 39 it was noted that during the course of
14 Hydro One Inc. comparable planning process for its Distribution Rate application it
15 identified what it referred to as a minimal level of capital and OM&A spending for each
16 of its categories of spending, and was able to reproduce a comparison of the as filed
17 budget and the determined minimal level spending considered as part of the budgeting
18 and business planning process.

19

20 a) In developing the as filed budgets summarized by Exhibit D1 Tab 7 Schedule 1 page
21 16 Table 2 (total Capital Budget of \$498M) Exhibit F1 Tab 1 S1 page 3 Table 2 (total
22 Distribution OM&A Budget of \$193.3M) and Exhibit F2 Tab 1 Schedule 1 page 2
23 Table 1 (total Administrative and General expenses of \$83.2M), does THESL
24 develop and consider [in] its planning process a level of spending for each (or any) of
25 the portfolios within the Capital Budget, Distribution OM&A Budget and
26 Administrative and General expenses areas similar or comparable to the minimum

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1 level spending developed by Hydro One Inc. and described in EB-2009-0096? We
2 refer THESL to the cites within Exhibit H Tab 7 Schedule 39 in EB-2009-0096 for
3 references to the concept behind Hydro One Inc.'s minimum level spending.

- 4 b) To the extent that THESL does develop and consider a level of spending similar or
5 comparable to the minimum level spending described by Hydro One Inc., please
6 produce a table comparing that minimum level of spending to the applied for
7 spending at the portfolio level of detail represented by Exhibit D1 Tab 7 Schedule 1
8 page 16 Table 2, Exhibit F1 Tab 1 S1 page 3 Table 2 and Exhibit F2 Tab 1 Schedule
9 1 page 2 Table 1 for the test year, similar to the tables produced by Hydro One Inc. in
10 EB-2009-0096 at Exhibit H Tab 7 Schedule 39 question a).
- 11 c) If THESL does not develop minimum level spending (or comparable) budgets for
12 consideration in its planning process, please confirm that THESL must necessarily be
13 unable to advise the Board whether, in the face of reductions by the Board to the
14 applied for budgets, THESL is either able or unable to operate in the test year within
15 the bounds of acceptable risk without first reviewing the impacts of its approved
16 budgets from scratch.

17

18 **RESPONSE:**

- 19 a) THESL develops budgets that are considered to be the required capital, O&M, and
20 A&G necessary to maintain safe, reliable and efficient electricity service. The
21 process THESL follows is described in Exhibit C1, Tab 4, Schedule 1, Appendix A.
22 During the course of developing budgets, a number of iterations occur until a balance
23 is achieved that meets established goals and objectives. THESL is not familiar with
24 the referenced minimum level spending approach.

25

- 26 b) See a) above.

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- 1 c) In its 2008 Decision with Reasons for EB-2007-0680, the Board stated at page 38,
2 “the Board does not approve or disapprove any specific line item within the
3 Company’s claim. The Company can apply to funds provided in the envelope where
4 it determines it ought to go.” This approach has allowed THESL the flexibility
5 necessary to defer or re-shape programs, transfer budget amounts, or adjust
6 allocations or contracting in a way that allows THESL to operate within acceptable
7 risks.

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1 **INTERROGATORY 36:**

2 **Reference(s):** **Exhibit E1 Tab 1 Schedule 1**

3 **Exhibit E1 Tab 3 Schedule 2**

4 **Exhibit E1 Tab 4 Schedule 2**

5

- 6 a) Has THESL issued medium or long-term debt in addition to that shown in Table 2
7 (first ref) since June 1, 2010? If so, please update Table 2 to reflect the additions.
- 8 b) Update the principle amounts, term, rates and spreads shown in Table 3 to reflect the
9 most recent forecasts and estimates available Reconcile to Exhibit E1 Tab 4 Schedule
10 2 lines 7, 8.
- 11 c) For 2010 debt issues (replacement) provide a schedule that compares the Board-
12 Approved principle amount, term, coupon rate versus the actual. Provide the annual
13 carrying costs for Board Approved and Actual issues.
- 14 d) Confirm that SEC and VECC argued in EB-2008-0139 that the effective coupon rate
15 for the \$200M Debenture should be lower than THESL's forecast.

16

17 **RESPONSE:**

18 a) THESL has not issued any additional debt since June 1, 2010.

19

20 b) As noted in response to BOMA Interrogatory 43 part b), THESL's latest estimate of
21 its cash balances in 2011 eliminate the need to issue debt. Therefore, there is no need
22 to update the forecast cost rates for the previously planned issues. Removing the
23 planned issues from the test year reduces the Medium- and Long-Term debt rate
24 marginally to 5.37%.

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- 1 c) Please see Exhibit E1, Tab 3, Schedule 2. Line 6 of Table 1 provides the requested
2 components for the actual debt issue, and line 6 of Table 2 provides the Board-
3 Approved components.
4
- 5 d) THESL confirms that in EB-2009-0139, VECC and SEC argued that the effective
6 coupon rate for the \$200M debenture should be lower than THESL's forecast.
7 THESL submits that this fact has no relevance to the validity of THESL's forecasts of
8 debt rates which are based on independent third party forecasts of bond rates.

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1 **INTERROGATORY 37:**

2 **Reference(s):** **Exhibit J1 Tab 1 Schedule 2 page 6**
3 **Exhibit J1 Tab 1 Schedule 2 Appendix A**
4

- 5 a) Please provide a breakdown/details of the IFRS costs in Account 1508 as of
6 September 30, 2010.
7 b) Relate these costs to the IFRS Compliance Work Plan Q1, Tab 1.
8

9 **RESPONSE:**

- 10 a) Please see the additional breakout provided in response to BOMA 2 (f).
11
12 b) As per the guidance in the October 2009 APH FAQ, the IFRS costs in Account 1508
13 represent “incremental one-time administrative costs caused by the transition of
14 accounting policies, procedures, systems and processes in IFRS. The incremental
15 costs eligible for inclusion in these accounts may include professional accounting and
16 legal fees, salaries, wages and benefits of staff added to support the transition to IFRS
17 and associated staff training and development costs”.

18
19 The IFRS costs in Account 1508 relate to payroll costs of employees and contractors
20 added to support the transition to IFRS (including identification of major differences,
21 development of accounting policies, design and implementation of new processes,
22 knowledge transfer and entity-wide training), and professional services on IFRS
23 issues including advisors, auditors and actuaries.
24

25 Other costs incurred as part of the IFRS Compliance Work Plan Q1, Tab 1, that are
26 **not** included in Account 1508 relate to capital expenditure spent on Information

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- 1 Technology and System and other operating expenses related to payroll costs for
- 2 employees who are not hired solely for the transition to IFRS, but who also spent
- 3 some of the time participating in working groups to assist with the IFRS transition.

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1 **INTERROGATORY 38:**

2 **Reference(s):** **Exhibit L1 Tab 1 Schedule 1**
3 **Exhibit L1 Tab 2 Schedule 1**
4 **Exhibit J1 Tab 1 Schedule 5, page 8 (RRWF)**
5

- 6 a) Please provide an electronic copy of the Cost Allocation model in Tab 2.
- 7 b) With respect to Sheet O1 (Tab 2/Schedule 1, page 22), please explain the how the
8 Distribution Revenues by Class (totalling \$589,908,703) were determined.
- 9 c) If not done as follows, please re-calculate Revenue to Cost ratios using Distribution
10 Revenues by Class calculated in the following manner:
- 11 • Determine 2011 revenues base on current rates.
 - 12 • Escalate the revenue for each class by the same percentage such that total
13 revenues equal that required for 2011.
- 14 d) With respect to Sheet O1 (Tab 2/Schedule 1, page 22), please explain basis for the
15 direct allocation of cost to the GS 1000-4999 and Large User Classes.
- 16 e) With respect to Sheet O1 (Tab 2/Schedule 1, page 22), please reconcile the values
17 used here for the following costs with those reported in the RRWF (Exhibit J1):
- 18 • Total Revenue/Revenue Requirement – Note: there appears to be a difference
19 even after allowing for the Transformer Ownership Allowance.
- 20 f) Please confirm that the Board's Cost Allocation Model does not include directly
21 allocated OM&A and Net Fixed Asset respectively in the allocation of G&A costs
22 and General Plant. If so, please comment on the appropriateness of this exclusion.
- 23 g) Please explain why THESL believes it is appropriate to move revenue to cost ratios
24 that are within the Board's target ranges incrementally towards unity (per L1/1/1,
25 page 3).

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- 1 h) Please re-do the Cost Allocation model in accordance with the Board's filing
2 guidelines by:
- 3 • Removing the revenues associated with the TOA from the Distribution Revenues
4 used for each customer class
 - 5 • Removing the TOA as a cost.
- 6

7 **RESPONSE:**

- 8 a) An electronic copy of the Cost Allocation Model is attached
9 (filename: EB-2010-0142_R1_T11_S38_2001 Cost Allocation Model.xls).
10
- 11 b) The distribution revenue by rate class (totaling \$589,908,703) is determined in the
12 manner as described.
13
- 14 c) Please see response to part (b).
15
- 16 d) As per OEB's Cost Allocation Review – EB-2005-0317, page 31:
17 “Direct Allocation must be applied if and only if, 100% of the use of a clearly
18 identifiable and significant distribution facility can be tracked directly to a single rate
19 classification.”
20
- 21 THESL has identified and segregated feeders capital amounts (and their maintenance
22 costs) that are used to serve specific large general service classes. Details for the
23 direct assignments to these rate classes are in found in Exhibit L1, Tab 2, Schedule 1,
24 pages 17-21. In addition to the feeders and maintenance costs, transformer ownership
25 allowances were directly assigned to the large general service classes.

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- 1 e) Please see Appendix A for the reconciliation between Exhibit L1, Tab 2, Schedule 1,
2 page 22 and Exhibit J1, Tab 2, Schedule 5, page 8.
3
- 4 f) THESL has not done a thorough analysis to definitively conclude that the Cost
5 Allocation model does not include directly allocated OM&A and Net Fixed Assets
6 respectively in the allocation of A&G costs and General Plant. However, based on
7 some preliminary analysis, this appears to be true. At this time, THESL does not
8 have any position on the appropriateness of this model functionality in the Board's
9 Cost Allocation Model.
10
- 11 g) As explained at Exhibit L1, Tab 1, Schedule 1, page 4, lines 1-21, THESL has
12 continued to move the revenue to cost ratios incrementally towards unity on the
13 principal that each class should be paying the full amount of costs that they incur.
14 THESL acknowledges that the cost allocation model involves judgment and
15 estimation which may make the resulting revenue to cost ratios less than precise;
16 however, THESL is comfortable enough with the model results to continue to move
17 the revenue to cost ratios for all classes incrementally closer to full recovery. THESL
18 believes the resulting changes are fair for all rate classes – both those shown to be
19 under recovering, and those shown to be over recovering.
20
- 21 h) Please see Appendix B for the revenue to cost ratio from the model when transformer
22 allowance is removed.

Exhibit L1, Tab 2, Sch 1, page 22		
Revenue (Includes Transformer Allowance)	\$589,908,703	
Micellaneous Revenue	\$19,737,464	
		\$ 609,646,167
Exhibit J1, Tab 2, Sch 5, page 8 (RRWF)		
Dististribution Revenue	\$578,428,862	
Other Revenue	\$19,737,464	
Transformer Allowance	\$11,479,841	
		\$ 609,646,167

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1 **INTERROGATORY 39:**

2 **Reference(s):** **Exhibit L1 Tab 1 Schedule 1**
3 **Exhibit L1 Tab 2 Schedule 1, Sheet I7.1**

4
5 a) For the Residential and GS<50 classes please explain the basis for the numbers
6 assigned to each type of meter and, in doing so, identify which types of meters are
7 considered to be “smart meters”.

8

9 **RESPONSE:**

10 a) The costs in Sheet I7.I for both the Residential and GS < 50 kW class reflects the
11 estimated installed costs of each meter type. The number of meters indicates the
12 forecast number of meters of each type installed for each of the rate classes.

13

14 In the residential class, all of the meters identified as “LDC Specific 1” and “LDC
15 Specific 2” are considered “smart meters”. In the GS<50 class, all of the meters
16 identified as “LDC Specific 1”, and approximately 90% of the meters which are
17 identified as “Network Meter” or “Demand” meters are considered “smart meters”.

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1 **INTERROGATORY 40:**

2 **Reference(s):** **Exhibit M1 Tab 1 Schedule 1, page 5**

3

4 a) Please provide a schedule that sets out the “ceiling rate” for each customer class as
5 determined by the Cost Allocation model and compare with:

- 6 • The 2010 approved customer service charge.
7 • The 2011 service charge – based on maintaining the 2010 fixed variable split.

8

9 **RESPONSE:**

10 a) Please see attached Schedule A.

Summary

Customer Unit Cost per month - Directly Related

Customer Unit Cost per month - Minimum System with PLCC Adjustment

Fixed Charge per approved 2010 Charge

Fixed Charge maintaining the 2010 Fixed Variable Split

Proposed 2011 Customer Charge

	Residential	GS <50kW	GS 50-999kW	GS 1000-4999kW	Large Use	Street Lighting	Unmetered Scattered Load
Customer Unit Cost per month - Directly Related	\$6.79	\$18.07	\$78.87	\$213.77	\$425.28	\$0.74	\$2.34
Customer Unit Cost per month - Minimum System with PLCC Adjustment	\$21.68	\$39.02	\$102.97	\$269.72	\$589.70	\$18.09	\$19.31
Fixed Charge per approved 2010 Charge	\$18.25	\$24.30	\$35.49	\$659.80	\$2,874.02	\$1.32	\$4.92
Fixed Charge maintaining the 2010 Fixed Variable Split	\$20.95	\$27.26	\$37.44	\$706.53	\$3,145.87	\$1.64	\$5.82
Proposed 2011 Customer Charge	\$20.95	\$27.26	\$37.44	\$671.21	\$2,988.58	\$1.64	\$5.82

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1 **INTERROGATORY 41:**

2 **Reference(s):** **Exhibit K1 Tab 8 Schedule 2**

3

4 a) How are the forecast 2011 Hydro One Networks LV charges recovered from rate
5 payers? There does not appear to be a separate LV rate adder.

6

7 **RESPONSE:**

8 a) The forecast 2011 Hydro One Network LV Charges (about \$180K) are not included
9 in THESL's 2011 proposed rates. THESL has been recording, and will continue to
10 record, these costs in a deferral account. These costs are recovered when THESL
11 subsequently files to clear the balance in this deferral account.

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1 **INTERROGATORY 42:**

2 **Reference(s):** **Exhibit N1/Tab 2/Schedule 1, page 2**

3

4 a) On August 20, 2010 the OEB published a RTSR Work Form that was to be
5 completed for all 2011 Rate Applications. Please provide a completed copy of the
6 Work Form.

7 b) Please provide a schedule that contrasts THESL's proposed 2011 RTSRs with the
8 results from the 2011 RTSR Work Form.

9

10 **RESPONSE:**

11 THESL does not believe the OEB's RTSR Work Form is applicable to determine
12 THESL's RTSR. The work form does not allow for inclusion of the Switchgear credit
13 that THESL receives from Hydro One for switchgear THESL owns. The model also
14 does not allow for direct input of forecast CP and NCP per class, which is the basis of
15 how costs are allocated to customer classes. In short, THESL believes that its own model
16 used to derive the RTSR's more closely reflects how transmission costs are incurred.

17

18 In any event, the difference between the revenue collected under the Board-Approved
19 RTSR and that actual transmission costs, is tracked in a variance account and returned to
20 or collected from customers when this account is cleared.

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1 **INTERROGATORY 43:**

2 **Reference(s):** **Exhibit J1 Tab 1 Schedule 2**

3

4 Preamble: Accounts 1555 and 1556 – Smart Meter Accounts.

5

6 THESL currently records Smart Meter Capex and Opex expenditures to these accounts.

7 THESL intends to seek clearance of these accounts once the Smart Meter Installation

8 Program has been completed, according to the OEB's guidance.

9 a) Confirm that SM Guideline G-2008-0002 has not superseded the OEB Filing

10 Requirements for Smart Meter Investment Plans, October 26, 2006

11 b) Confirm that paragraph 7 of the Filing Requirements requires as follows:

12 Specifically, and in as much detail as possible, please provide the following

13 information for your planned implementation of the SMIP:

- 14 • the number of meters installed by class and by year, both in absolute terms
- 15 and as a percentage of the class;
- 16 • the capital expenditures and amortization by class and by year;
- 17 • the operating expenses by class and by year;
- 18 • the effect of the SMIP on the level of the allowance for PILs.

19 c) Did THESL File its SMIP in accordance with the Filing Guidelines? Please elaborate

20 d) Has THESL kept records by class as required by the Filing Guidelines and are

21 accounts 1556 and 1555 segregated by rate class? Please elaborate.

22 e) Provide a schedule that gives a breakdown of the 2006-2010 SM Capital Costs

23 between the Residential and GS<50kw classes.

24 f) Provide a breakdown of the O&M costs for meters installed in 2006-2010 between

25 the Residential and GS<50kw classes.

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- 1 g) Provide the details of the balances in Accounts 1555 and 1556 **by class**. Include the
2 carrying cost calculation(s).

3

4 **RESPONSE:**

5 The requested information pertains to historical costs of THESL's smart meter rollout
6 program, which is not an issue in this proceeding. THESL will provide comprehensive
7 information on its historical smart meter program costs when it applies for clearance of
8 the amounts in the smart meter deferral accounts. The Board has directed that that
9 application not be brought until audited information is available for the year in which the
10 rollout program is completed, 2010.

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1 **INTERROGATORY 44:**

2 **Reference(s):** Exhibit G1 Tab 1 Schedule 1 page 1, lines 4-10.

3

4 This Exhibit presents THESL's plans for development of the smart grid in keeping with
5 the *Green Energy and Green Economy Act, 2009* ("GEA"), proclaimed in force on
6 September 9, 2009. THESL seeks cost recovery of its plans for the 2011 Test Year, and
7 provides a directional view into its plans for the period 2012 to 2015. THESL expects to
8 file smart grid evidence in accordance with the Board's March 25, 2010 *Filing*
9 *Requirements: Distribution System Plans – Filing under Deemed Conditions of Licence,*
10 10 (EB-2009-0397), as part of its cost of service application for rates to be effective in
11 2012.

12 a) Is it THESL's position that Exhibit G1 Tab 1 Schedule 1 is a "Green Energy Act
13 Plan" (a "GEA Plan") filed pursuant to the Board's March 25, 2010 *Filing*
14 *Requirements: Distribution System Plans – Filing under Deemed Conditions of*
15 *Licence, 10 (EB-2009-0397)* (the "GEA Filing Requirements") at pages 4, 5 and 6
16 of those requirements? If not, please describe the regulatory framework within
17 which THESL asserts the Board has the authority to review and approve the
18 expenditures described in Exhibit G1 Tab 1 Schedule 1.

19

20 **RESPONSE:**

21 a) The Board has required LDCs to file a GEA Plan as part of their cost of service
22 application for 2012 and subsequent rate years. While THESL expects to file smart
23 grid evidence in accordance with the Board's March 25, 2010 *Filing Requirements:*
24 *Distribution System Plans – Filing under Deemed Conditions of Licence* as part of its
25 cost of service application for rates to be effective in 2012, THESL's evidence at

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1 Exhibit G1, Tab 1, Schedule 1 builds on THESL's smart grid approach in its 2010
2 EDR application (EB-2009-0139). It is not a "GEA Plan".

3

4 THESL observes that the Board has the authority to review and approve smart grid
5 expenditures in the current application based on the existing regulatory framework for
6 cost recovery in a cost of service rates application.

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1 **INTERROGATORY 45:**

2 **Reference(s):** Exhibit G1 Tab 1 Schedule 1 page 3 Table 1.

3

- 4 a) Please confirm that the all of the applied for *Green Energy Act* related spending for
5 2011 is summarized in Table 1, amounting to a total of \$2.4M in capital spending and
6 \$550,000 in OM&A spending.
- 7 b) Please confirm that all of the spending in Table 1 is Smart Grid related as defined by
8 the *Electricity Act, 1998 S.O. 1998, C. 15, Schedule A, s. 1 (1.3)*.

9

10 **RESPONSE:**

11 a) THESL confirms that all of the applied for Green Energy Act-related spending for
12 2011 is summarized in Table 1, amounting to a total of \$2.4 M in capital spending
13 and \$550,000 in OM&A spending.

14

- 15 b) According to the *Electricity Act, 1998 S.O. 1998, C. 15, Schedule A, s. 1 (1.3)*:
- 16 *“Smart grid” means the advanced information exchange systems and equipment that*
17 *when utilized together improve the flexibility, security, reliability, efficiency and*
18 *safety of the integrated power system and distribution systems, particularly for the*
19 *purposes of,*
- 20 *a. Enabling the increased use of renewable energy sources and technology,*
21 *including generation facilities connected to the distribution system;*
22 *b. Expanding opportunities to provide demand response, price information and*
23 *load control to electricity customers;*
24 *c. Accommodating the use of emerging, innovative and energy-saving*
25 *technologies and system control applications; or*
26 *d. Supporting other objectives that may be prescribed by regulation.*

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1 Based on this definition, the following three criteria were used in determining the
2 mentioned projects as smart grid investments:

- 3 1) Exhibit communication and information technology capabilities (“advanced
4 information exchange”)
- 5 2) Integration between equipment and information exchange systems (“when
6 utilized together”)
- 7 3) Directed at the objectives as defined in the GEGEA (“improve the flexibility,
8 security, reliability, efficiency and safety of the integrated power system and
9 distribution systems, particularly for the purposes of, a) enabling the increased
10 use of renewable energy sources and technology, including generation
11 facilities connected to the distribution system; b) expanding opportunities to
12 provide demand response, price information and load control to electricity
13 customers; c) accommodating the use of emerging, innovative and energy-
14 saving technologies and system control applications; or d) Supporting other
15 objectives that may be prescribed by regulation.)

16

17 By satisfying the above three criteria for determining Smart Grid investments,
18 THESL confirms that all of the capital spending projects in Table 1 of Exhibit G1,
19 Tab 1, Schedule 1 meet the definition of Smart Grid. The operating spending in
20 Table 1 is also described as Smart Grid-related in accordance with the Board’s March
21 25, 2010 *Filing Requirements: Distribution System Plans – Filing under Deemed*
22 *Conditions of Licence* (EB-2009-0397).

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1 **INTERROGATORY 46:**

2 **Reference(s):** **Exhibit G1 Tab 2 Schedule 1 page 1 lines 12-26 and page 2**

3 **Table 1**

4

5 **SMART GRID DEMONSTRATION PROJECTS**

6 Smart grid demonstration projects include activities where THESL seeks to acquire
7 knowledge and experience and develop technology, all of which can be integrated into its
8 current system to demonstrate the functionalities and benefits of the smart grid. 2011
9 plans will build upon 2010 projects and further demonstrate an integrated smart grid.

10

11 Through active participation in conferences, academic communities and industry groups,
12 including the Ontario Smart Grid Forum, THESL has undertaken a prudent review of
13 other demonstration projects to ensure that its demonstrations are well coordinated with
14 those of other stakeholders for information sharing, and that any projects undertaken are
15 concrete investments that will lead to the advancement of knowledge and lessons learned
16 in the implementation of a smart grid. THESL has taken care to ensure that the initiatives
17 will not bring about unnecessary duplication of efforts, but will contribute towards
18 generating immediate benefits to the planning and operation of the system. Table 1 lists
19 smart grid demonstration projects and associated expenditures.

20

21 a) With respect to the three Demonstration Projects listed on Table 1, please disclose
22 any other demonstration projects encountered in the prudent review described on
23 page 1 that involve similar technology, and describe the basis upon which THESL
24 determined that proceeding with the three Demonstration Projects would not bring
25 about unnecessary duplication.

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1 **RESPONSE:**

2 Regarding the demonstration of energy storage, similar projects in Ontario were reviewed
3 based on LDC regulatory filings as well as ongoing discussions through avenues such as
4 the Ontario Smart Grid Forum. In particular, Hydro One has filed energy storage plans
5 (including battery, compressed air, and hydrogen fuel cell systems) in the Owen Sound
6 Smart Zone. Demonstrations in other parts of Canada and the United States were also
7 reviewed, examples including BC Hydro's hydrogen assisted renewable power and
8 American Electric Power's (AEP) Community Energy Storage plans. The CEATI project
9 as proposed in THESL's plans is being performed in collaboration with partners
10 including Hydro One and Manitoba Hydro. THESL's proposed energy storage project is
11 non-duplicative based on the storage technology chosen (innovative battery technologies,
12 repurposed automotive batteries, etc.) as well as its location and application in a highly
13 urban setting. The storage units are also highly integrated with other smart grid
14 components, as described in Exhibit G1, Tab 2, Schedule 1, page 3.

15

16 Regarding the demonstration of an electric vehicle charging infrastructure, similar
17 projects in Ontario were reviewed based on LDC regulatory filings as well as ongoing
18 discussions through avenues such as the Ontario Smart Grid Forum. In particular, Hydro
19 One has indicated field trial of Plug-in Hybrid Electric Vehicles ("PHEV") as part of the
20 Owen Sound Smart Zone, and Burlington Hydro has an ongoing electric vehicle
21 demonstration for fleet application. Demonstrations in other parts of Canada and the
22 United States were also reviewed, including Hydro Quebec's demonstration of 50 electric
23 vehicles and BC Hydro's testing of various vehicle types. THESL's proposed vehicle
24 charging infrastructure project is non-duplicative based on its unique application in a
25 highly urban setting, as well as a high degree of integration with other smart grid

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1 components to enable smart charging, as described in Exhibit G1, Tab 2, Schedule 1,
2 page 4.

3

4 Regarding the demonstration of active demand response, similar projects in Ontario were
5 reviewed based on OPA offerings and individual LDC plans, as well as ongoing
6 discussions through avenues such as the Ontario Smart Grid Forum. THESL's proposed
7 active demand response project is non-duplicative based on a granular and targeted
8 dispatch of demand response based on local grid conditions, as opposed to large scale
9 provincial dispatch. This is achieved by a high degree of integration with other smart
10 grid components, including transformer smart meters, power line monitors, self-healing
11 switches, energy storage units and the energy management system.

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1 **INTERROGATORY 47:**

2 **Reference(s):** Exhibit G1 Tab 2 Schedule 1 pages 3-5 regarding the Electric
3 **Vehicle Charging Infrastructure Project**

4
5 a) Please describe in more detail how the Electric Vehicle Charging Infrastructure
6 Project is a Smart Grid related project in accordance with the definition in the
7 *Electricity Act, 1998* S.O. 1998, C. 15, Schedule A, s. 1 (1.3), as opposed to simply a
8 new source of load?

9
10 **RESPONSE:**

11 According to the *Electricity Act, 1998* S.O. 1998, C. 15, Schedule A, s. 1 (1.3):

12 “Smart grid” means the advanced information exchange systems and equipment that
13 when utilized together improve the flexibility, security, reliability, efficiency and
14 safety of the integrated power system and distribution systems, particularly for the
15 purposes of,

- 16 • Enabling the increased use of renewable energy sources and technology,
17 including generation facilities connected to the distribution system;
- 18 • Expanding opportunities to provide demand response, price information and
19 load control to electricity customers;
- 20 • Accommodating the use of emerging, innovative and energy-saving
21 technologies and system control applications; or
- 22 • Supporting other objectives that may be prescribed by regulation.

23
24 Based on this definition, the following three criteria were used in determining the
25 mentioned project as a smart grid-related investment:

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- 1 1) Exhibit communication and information technology capabilities (“advanced
2 information exchange”)
- 3 2) Integration between equipment and information exchange systems (“when utilized
4 together”)
- 5 3) Directed at the objectives as defined in the GEGEA (“improve the flexibility,
6 security, reliability, efficiency and safety of the integrated power system and
7 distribution systems, particularly for the purposes of, a) enabling the increased use
8 of renewable energy sources and technology, including generation facilities
9 connected to the distribution system; b) expanding opportunities to provide
10 demand response, price information and load control to electricity customers; c)
11 accommodating the use of emerging, innovative and energy-saving technologies
12 and system control applications; or d) Supporting other objectives that may be
13 prescribed by regulation.”)

14

15 An Electric Vehicle Charging Infrastructure is a smart grid-related project for the
16 following reasons:

- 17 • An electric vehicle represents a significant and largely intermittent load that can
18 potentially have an adverse impact on the distribution grid if uncontrolled. Some
19 of these impacts relate to system capacity, power quality, and system protection.
- 20 • “Smart charging” is required to ensure that the charging of electric vehicles is
21 monitored, controlled and coordinated with the safe and reliable operation of the
22 distribution system.
- 23 • Smart charging can be achieved via standards-based charging, communication
24 with the vehicle and charging station, smart metering, transformer smart metering,
25 and electric vehicle charge management for coordinated dispatch. This satisfies
26 the first two criteria for determining smart grid investments.

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- 1 • An Electric Vehicle Charging Infrastructure through smart charging contributes
- 2 toward meeting the objectives as defined in the GEGEA, such as improving the
- 3 flexibility, reliability and safety of the integrated power system and distribution
- 4 system, and providing demand response capabilities for electric vehicle loads.