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November 4, 2011

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

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

Dear Ms. Walli:

Re: Toronto Hydro-Electric System Limited's ("THESL")
2011 Electricity Distribution Rate Application – Responses to Interrogatories on Suite Metering Evidence, Corrections and Confidential Filing
OEB File No. EB-2010-0142

THESL received interrogatories from Board Staff, Consumers Council of Canada ("CCC"), Smart Sub-Metering Working Group ("SSMWG") and Vulnerable Energy Consumers Coalition. Pursuant to the Board's Decision on Motion dated October 14th, enclosed are THESL responses to these interrogatories.

In preparing its responses to the interrogatories on the Suite Metering evidence, THESL has identified two corrections to input values in the Cost Allocation model (related to values used for Bad Debt/Late Payment penalties, and meter capital costs). They have been reflected in the corrected written direct pages attached, and in the corrected Cost Allocation model being filed. The corrections result in a decrease in the calculated Revenue to Cost ratio for the Quadlogic class, from 104.7 to 100.5. The responses to the interrogatories reflect this correction when necessary.

In the second round of interrogatories in an earlier phase of this proceeding, SSMWG asked in interrogatory 8 to identify the unit pricing capital cost and installation cost per suite. In a letter to the Board dated January 20, 2011, THESL requested that the Board

limit disclosure of that commercially-sensitive information, to counsel who execute the Board's Declaration and Undertaking. The Board granted THESL's request. In this present round of interrogatories, Board Staff interrogatory 5 and CCC interrogatory 2 make the same request. Therefore, THESL requests that responses to these two interrogatories be treated in the same manner as SSMWG interrogatory 8 in the earlier phase of this proceeding.

THESL is providing the Board with its responses to Board Staff interrogatory 5 and CCC interrogatory 2 enclosed in an envelope marked "confidential", in accordance with the OEB's *Rules of Practice and Procedure* in its Practice Direction on Confidential Filings. THESL also notes that should any party wish to cross-examine/or address these documents in any other way during this proceeding, THESL requests that those proceedings be conducted *in camera*, and any submissions or other written material pertaining to these documents be filed in confidence, all in accordance with the Practice Direction.

Please direct any questions or comments to my attention.

Yours truly,

Glen A. Winn
Manager, Regulatory Applications & Compliance

.encl

:GAW/acc

cc: J. Mark Rodger, Counsel for THESL
Intervenors of Record for EB-2010-0142

RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES ON SUITE METERING EVIDENCE

INTERROGATORY 1:

Reference(s): L1/T5/S1/p. 1

At the above reference it is stated:

"The Updated BDR Study identified 9,149 suite metered customers served by Quadlogic technology at the end of 2009. For the current analysis, 24,898 suite meter customers are forecast to be served by Quadlogic meters in 2012".

a) The evidence states that the 9,149 suite meter customers are housed in 48 multi-unit residential buildings. Please provide the number of buildings in each of the 5 electricity load requirement categories: less than 50 KVA, 50 KVA to 100 KVA, 100KVA to 250 KVA, 250KVA to 500 KVA and more than 500 KVA. Please also provide the different supply voltages (kV) that are used to serve the buildings in each of the 5 load categories.

b) THESL forecasts 24,898 suite meter customers in 2012. How many multi-unit residential buildings does that customer forecast represent? Please provide the number of buildings in each of the 5 load categories: less than 50 KVA, 50 KVA to 100 KVA, 100KVA to 250 KVA, 250KVA to 500 KVA and more than 500 KVA. Please also provide the different supply voltages (kV) that are projected to serve the buildings in each of the 5 load categories.

c) How is the load for the common areas metered in multi-unit residential buildings that are suite metered and is it allocated in some manner to the suites in the building?

RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES ON SUITE METERING EVIDENCE

RESPONSE:

a) The breakdown of the 48 MURB buildings is:

Load Categories	Number of Buildings	Supply Voltages	Primary/Secondary Fed
0-50 kVA	0	Not applicable	0/0
50-100 kVA	4	1@120/208V 3@600V	3/1
100-250 kVA	8	600V	8/0
250-500 kVA	21	3 @120/208V 18 @600V	18/3
>500 kVA	15	600V	15/0

RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES ON SUITE METERING EVIDENCE

b) The breakdown for the 24,898 suite meters is:

Load Categories	Number of Buildings	Supply Voltages	Primary/Secondary Fed
0-50 kVA	1	120/208V	0/1
50-100 kVA	7	5@120/208V 2 @600V	2/5
100-250 kVA	19	3@120/208V 16@600V	16/3
250-500 kVA	38	2@120/208V 36@600V	36/2
>500 kVA	48	600V	48/0

c) For MURB facilities the common areas is, in most cases, separately metered. In a few cases, the common area use is netted out of the bulk meter by using the sum of the suite meter usage. In condominiums, the common element expenses are billed to the condominium corporation and are included in the monthly maintenance fees. For apartment buildings, the common usage is part of the building owners' operational expenses.

RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES ON SUITE METERING EVIDENCE

INTERROGATORY 2:

Reference(s): L1/T5/S1/p. 2 and p. 9

It is stated on page 2 when discussing the load forecast that:

> "As in the Updated BDR Study, some of the raw load data contains periods with zero use (due to unoccupied units). THESL has used the same methodology employed in the Updated BDR Study to obtain an updated estimate of average monthly load. This updated evidence is 334 kWh per month. Due to the time constraints associated with filing this evidence, THESL has not done a detailed investigation as to why the most recent sample produces a lower average monthly load than the Updated BDR Study"

Table 4 – "Suite Meter Rates" on page 9 is based on a Suite Meter Class consumption of 334 kWh/month and a Remaining Residential Class consumption of 677 kWh/month:

a) Please state how much of the raw load data contains periods with zero use and whether or not there has been any variability in this amount between the various suite metering studies undertaken by THESL and, if so, the extent of any such variability.
b) Please comment on the extent to which THESL believes the differentials in consumption between the two rate classes in Table 4 are related to this factor and/or what other factors would explain this differential.
c) Please provide any views THESL may have as to why the most recent sample produced a lower average monthly load than the updated BDR Study.

RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES ON SUITE METERING EVIDENCE

RESPONSE:

a) In the current analysis, 0.1% of the hourly load data used to determine the average monthly load per Quadlogic metered customer contained hourly kWh data which had a value of 0. In the updated BDR study, 1.4% of the hourly load data had a value of 0. THESL believes this difference is immaterial in the comparison between the two samples, and is not the cause of any difference.

b) The variance is unrelated. The Remaining Residential Class average consumption is simply determined by subtracting the Quadlogic class consumption from the Total Residential class, divided by the number of Remaining Residential Class customers.

c) As indicated in its evidence, THESL has not done an analysis as to why the results of the current sample produce a different average consumption than the sample used by BDR. The fact is, they are two different samples. A difference in the mathematical average of the two samples is not unexpected. THESL does however note that since 2005, average residential load has been declining annually.

As indicated in evidence, the variance of monthly consumption in the current sample is fairly large (192kWh standard deviation) and THESL has provided Revenue to Cost scenario results using +/- one standard deviation around the current sample result. As shown in Table 3, the resulting variance in the R/C ratio is approximately 4-5%.

RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES ON SUITE METERING EVIDENCE

INTERROGATORY 3:

Reference(s): L1/T5/S1/pp. 2-3

It is stated when discussing meter costs that:

> "The Board has indicated that the new Suite Meter class is to be defined (presently) by the meter type servicing the customers in this class – specifically Quadlogic meters. The use of this technology for serving Suite Meter customers was based on a number of factors, including physical characteristics, cost and Measurement Canada approval. Currently, this is the brand of meter being installed by THESL. The contract with the vendor for these meters will expire at the end of 2011, and there is no guarantee that this same technology will be used by THESL."

a) Please identify the stage which THESL is in for negotiating a new contract for the provision of meters beyond 2011 and when THESL would expect that a decision on a new supplier would be reached.
b) Please provide THESL's views as to the magnitude of the potential impact of a new contract on the results of the present study, particularly as regards to the price of the meters.
c) Would the need for a new contract be a factor in THESL's increased 2012 meter cost estimate of $550?

RESPONSE:

a) THESL has drafted a new RFP document to be issued later this year. The document is currently being reviewed.. A decision on the new supplier will not likely be made

RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES ON SUITE METERING EVIDENCE

until some time in Q1 2012.

b) THESL can not know the impact until the submissions are received.

c) No.

RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES ON SUITE METERING EVIDENCE

INTERROGATORY 4:

Reference(s): L1/T5/S1/p. 3

Re: Forecast Number of Quadlogic and other Customers

a) Please confirm that THESL's forecast of suites metered by Quadlogic equipment is 24,989, compared to 9,149 suites used in the previous cost allocation study filed on February 18, 2011.

b) Is THESL's forecast of suites metered by equipment other than Quadlogic also increased by a similar factor? What is THESL's forecast of the number of such suites?

RESPONSE:

a) THESL has forecast that there will be 24,989 Quadlogic customers as of mid-2012, and is the basis of the customer numbers used in the Cost Allocation Study.

b) THESL has not produced a forecast of suites metered by equipment other than Quadlogic. For the purposes of the current analysis, the forecast of total number of residential customers (which includes Quadlogic customers, non-quadlogic multi-residential customers, and all other residential customers) was reduced by the number of forecast Quadlogic customers. THESL's residential customer forecasting methodology does not include forecasting by different meter types. The forecast of non-Quadlogic residential customers is based on extrapolating historical number of all remaining residential customers after subtracting the Quadlogic metered customers.

RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES ON SUITE METERING EVIDENCE

INTERROGATORY 6:

Reference(s): L1/T5/S1/p. 4

It is stated when discussing meter costs that:

> "With respect to meter reading costs, as was indicated in the Updated BDR study, these costs are expected to be reduced as the reading of the meters is moved in-house. In that study, meter reading for the Quadlogic customers was assigned a weighting factor of 7 compared to 1 for a smart meter residential customer. Based on 2012 data, the weighting factor compared to other residential meters used in the evidence is estimated to be 3.6. This lower value reflects the reduced costs."

a) Please discuss how the initial weighting factor of 7 was determined by THESL.

b) Please provide quantitative support for the reduction in the weighting factor from 7 to 3.6, specifying which costs are now lower and how these reductions affected the weighting factor to produce the 3.6 level.

RESPONSE:

a) In the BDR study, the weighting factor 7 was based on the average meter reading cost per meter of $2.75 for Quadlogic meters and $0.39 for an outside residential meter.

b) The updated weighting factor is based on an average meter reading cost per meter of $1.58 for Quadlogic meters and $0.43 for residential smart meters.

RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES ON SUITE METERING EVIDENCE

INTERROGATORY 7:

Reference(s): L1/T5/S1/pp. 4-5.

It is stated when discussing meter costs that:

> "In the BDR study, meter reads were assumed to happen every two months. For the current study, reads have been assumed to occur monthly, as the suite meters are being read and billed at the same time as the bulk meter (which is used to bill the building common load area). This serves to increase the costs allocated to the Suite Meter class."

Please identify the magnitude of the cost increase to the Suite Meter class arising from monthly meter reads.

RESPONSE:

The impact in the Cost Allocation Model is an increase of approximately $353,000. This amount is determined by changing the Quadlogic multiplier on Sheet I7.2 from 12 to 6.

RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES ON SUITE METERING EVIDENCE

INTERROGATORY 8:

Reference(s): L1/T5/S1/pp. 4-5

It is stated when discussing marketing expenses that:

> "In the Updated BDR study, a direct allocation of marketing costs associated with the suite meter program was included. The amount allocated to the Quadlogic class was $90,000. In 2012, there are no marketing dollars included in the budget for suite meter activity and hence no expenses have been directly allocated to the Suite Meter class."

a) Please state why $90,000 of marketing costs were allocated to the suite metering program in the Updated BDR study and what they represented.

b) Please state why a change was made for 2012 so that no such expenses have been allocated directly to the Suite Meter class.

RESPONSE:

a) These costs were marketing costs (primarily for printed materials, trade shows) specifically identified in the previous study as being attributed to the Suite Meter program, and hence allocated only to the Quadlogic class.

b) No such expenses were included in the overall THESL budget, and hence there were no costs to be directly allocated to the Quadlogic class. Please see response to SSMWG Interrogatory 10 at Exhibit R4, Tab 10, Schedule 10.

RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES ON SUITE METERING EVIDENCE

INTERROGATORY 9:

Reference(s): L1/T5/S1/p. 6

For the revenue-to cost ratios shown in Table 2 – "Revenue/Cost Ratios," please provide the numerators and denominators for each of these ratios and the sources for them.

RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES ON SUITE METERING EVIDENCE

RESPONSE:

2012 values are based on corrected model.

Revenue/Cost Ratios

	2012 Base				Source
	Revenue	Cost	Ratio		
Suite Meter Class	8,232,379	8,187,776	**100.5%**		Exhibit L1, Tab 5, Schedule 2, Tab O1 corrected
Residential Class	237,809,104	266,966,279	**89.1%**		Exhibit L1, Tab5, Schedule 2, Tab O1 corrected
Combined Suite Meter and Residential Class	246,041,483	275,154,055	**89.4%**		Exhibit L1, Tab 5, Schedule 2, Tab O1 corrected

	BDR Study				Source
	Revenue	Cost	Ratio		
Suite Meter Class	2,594,417	2,733,996	**94.9%**		Exhibit L1, Tab 4, Schedule 1, pg 18
Residential Class	204,523,641	225,609,042	**90.7%**		Exhibit L1, Tab 4, Schedule 1, pg 18
Combined Suite Meter and Residential Class	207,118,058	228,343,038	**90.7%**		Exhibit L1, Tab 4, Schedule 1, pg 18

RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES ON SUITE METERING EVIDENCE

INTERROGATORY 10:

Reference(s): L1/T5/S1/p. 4 and 7

It is stated when discussing meter costs that:

> "A sensitivity analysis was also conducted by directly allocating the estimated Quadlogic meter costs to the Suite Meter class, rather than using the model's meter cost weighting factors."

Table 3 – "Sensitivity of R/C Ratios to Alternative Assumptions" shows that the direct allocation of meter costs would reduce the Revenue-to-Cost ratio for the Suite Meter class from 104.7% to 99.2%. Please state why THESL used the model's meter cost weighting factors rather than direct allocation for these costs and which approach THESL would view as the most accurate.

RESPONSE:

The Cost Allocation Model designed and built by the OEB incorporates detailed information on costs by meter type for each rate class, and allocates these weighted meter costs using sound allocation logic to all rate classes. THESL believes this to be a reasonable methodology for all rate class.

Under the direct allocation methodology, while the Quadlogic meter costs are allocated directly to the Quadlogic class, the remaining meter costs are allocated to all classes – including the Quadlogic class – using the weighted meter logic. While this shortcoming could be partially overcome by assigning zero costs to the Quadlogic class in Tab I7.1, some meter costs – specifically wholesale meter costs – which are in the meter cost

RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES ON SUITE METERING EVIDENCE

USoA account will not get allocated to the Quadlogic class, while they should be. In the current model, there is no practical way to separate out and directly allocate these meter costs.

The direct allocation of the estimated Quadlogic meter costs to the Quadlogic class in the sensitivity analysis was performed to transparently demonstrate the results using a second method of allocation (and did not adjust for the shortcoming noted above). It is THESL's view that both methods likely provide a reasonable estimate for the allocation of meter costs, and the relatively narrow range of the result (especially considering the relatively small size of the Quadlogic class) demonstrates this.

RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES ON SUITE METERING EVIDENCE

INTERROGATORY 11:

Reference(s): L1/T5/S1/p. 9

Table 4 – "Suite Meter Rates" provides estimated monthly bills for the Suite Meter Class and the Remaining Class. Please provide these bills in the format of Appendix 2-V "Bill Impacts" of the Board's Filing Requirements.

RESPONSE:

Please see Appendices A and B to this Schedule. Note that for these tables, the monthly consumption levels of 334 kWh and 677 kWh for the Quadlogic and Remaining Residential class respectively have been used.

RESIDENTIAL (QuadLogic) - 334 kWh	Current			Proposed			Impact	
	Volume	Rate $	Charge $	Volume	Rate $	Charge $	Change $	Change %
Service Charge (per 30 days)	1	18.25	18.25	1	$16.29	16.29	(1.96)	-10.7%
Distribution	334	0.01520	5.08	334	0.02701	9.02	3.94	77.7%
Smart Meter Rider (per 30 days)	1	0.68	0.68	1	1.28	1.28	0.60	88.2%
GEA Rate Rider	-	-	-	1	0.46	0.46	0.46	n/a
LRAM Rider	-	-	-	334	0.00011	0.04	0.04	n/a
Regulatory Assets - 2011/12 Rate Rider	334	(0.00189)	(0.63)	334	(0.00049)	(0.16)	0.47	-74.1%
Regulatory Assets - Global Adjustment - RPP	-	-	-	-	-	-	-	n/a
Regulatory Assets - 2011 Rate Rider	334	(0.00043)	(0.14)	-	-	-	0.14	-100.0%
Contact Voltage	1	0.16	0.16	-	-	-	(0.16)	-100.0%
Late Payment Penalty	1	0.24	0.24	1	0.24	0.24	-	0.0%
Foregone Revenue Rate Rider - fixed rate	-	-	-	-	-	-	-	n/a
Foregone Revenue Rate Rider - variable rate	334	(0.00017)	(0.06)	-	-	-	0.06	-100.0%
Sub Total A - Distribution			23.58			27.16	3.59	15.2%
RTST - Network	347	0.00703	2.44	347	0.00688	2.38	(0.05)	-2.1%
RTSR - Connection	347	0.00513	1.78	347	0.00520	1.80	0.02	1.4%
Sub Total B (including Sub-Total A) - Distribution			27.79			31.35	3.56	12.8%
Wholesale Market Rate	347	0.00520	1.80	346.56	0.00520	1.80	-	0.0%
RRRP	347	0.00130	0.45	346.56	0.00130	0.45	-	0.0%
DRC	334	0.00700	2.34	334	0.00700	2.34	-	0.0%
Standard Supply Service Charge	1	0.25	0.25	1	0.25	0.25	-	0.0%
SPC	347	-	-	347	-	-	-	n/a
Cost of Power Commodity - 1st Tier (May 1st 2010)	600	0.068	40.80	600.00	0.068	40.80	-	0.0%
Cost of Power Commodity - 2nd Tier (May 1st 2010)	(253)	0.079	(20.02)	(253.44)	0.079	(20.02)	-	0.0%
Total Bill (including Sub-Total B)			53.41			56.97	3.56	6.7%

	kWh
Consumption Details	**334**
Total Loss Factor	1.0376

RESIDENTIAL - 677 kWh	Current			Proposed			Impact	
	Volume	Rate $	Charge $	Volume	Rate $	Charge $	Change $	Change %
Service Charge (per 30 days)	1	18.25	18.25	1	$20.16	20.16	1.91	10.5%
Distribution	677	0.01520	10.29	677	0.01646	11.14	0.85	8.3%
Smart Meter Rider (per 30 days)	1	0.68	0.68	1	1.28	1.28	0.60	88.2%
GEA Rate Rider	-	-	-	1	0.46	0.46	0.46	n/a
LRAM Rider	-	-	-	677	0.00011	0.07	0.07	n/a
Regulatory Assets - 2011/12 Rate Rider	677	(0.00189)	(1.28)	677	(0.00049)	(0.33)	0.95	-74.1%
Regulatory Assets - Global Adjustment - RPP	-	-	-	-	-	-	-	n/a
Regulatory Assets - 2011 Rate Rider	677	(0.00043)	(0.29)	-	-	-	0.29	-100.0%
Contact Voltage	1	0.16	0.16	-	-	-	(0.16)	-100.0%
Late Payment Penalty	1	0.24	0.24	1	0.24	0.24	-	0.0%
Foregone Revenue Rate Rider - fixed rate	-	-	-	-	-	-	-	n/a
Foregone Revenue Rate Rider - variable rate	677	(0.00017)	(0.12)	-	-	-	0.12	-100.0%
Sub Total A - Distribution			27.93			33.03	5.09	18.2%
RTST - Network	702	0.00703	4.94	702	0.00688	4.83	(0.11)	-2.1%
RTSR - Connection	702	0.00513	3.60	702	0.00520	3.65	0.05	1.4%
Sub Total B (including Sub-Total A) - Distribution			36.48			41.51	5.04	13.8%
Wholesale Market Rate	702	0.00520	3.65	702	0.00520	3.65	-	0.0%
RRRP	702	0.00130	0.91	702	0.00130	0.91	-	0.0%
DRC	677	0.00700	4.74	677	0.00700	4.74	-	0.0%
Standard Supply Service Charge	1	0.25	0.25	1	0.25	0.25	-	0.0%
SPC	702	-	-	702	-	-	-	n/a
Cost of Power Commodity - 1st Tier (May 1st 2010)	600	0.068	40.80	600	0.068	40.80	-	0.0%
Cost of Power Commodity - 2nd Tier (May 1st 2010)	102	0.079	8.09	102	0.079	8.09	-	0.0%
Total Bill (including Sub-Total B)			94.93			99.96	5.04	5.3%

	kWh
Consumption Details	**677**
Total Loss Factor	1.0376

RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES ON SUITE METERING EVIDENCE

INTERROGATORY 12:

Reference(s): L1/T5/S1/p. 10 and p. 12

It is stated that:

> "Under the current tariff, THESL must bill the property owner under existing residential rates (or the prospective suite meter rate, if approved) for each unit in which a suite meter is installed. THESL cannot install the meters and then wait for an indefinite period to begin recovering the associated costs. However, relative to the situation in which consumption for unconverted units is billed under the applicable bulk rate, costs to the property owner are substantially higher."

a) Please state whether THESL is aware of any other jurisdictions using an approach similar to the proposed transitional meter-only rate and, if so, which ones.
b) Please state whether this charge would be the same for all classes to which it is applicable and which classes these would be. If it would vary by class, please provide the class-specific charges.
c) Please state how THESL would know when to switch from the transitional rate to the regular rate.
d) Please state whether in THESL's view the acceptance of this proposal by the Board would result in any additional costs other than the $53,000 referenced on page 12 and, if so, what they would be.

RESPONSE:

In accordance with the Board's Motion Decision on October 14, 2011, the Meter-Only Rate is no longer an issue in this proceeding.

RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES ON SUITE METERING EVIDENCE

INTERROGATORY 13:

Reference(s): L1/T5/S1/p. 12

It is stated that:

> "Regular billing and customer care costs related to the unconverted units would not be incurred by THESL during the transition since the meters would not be used for billing purposes in that period."

Please state whether or not there would be any fixed costs related to regular billing and customer care costs which should be allocated to the meter-only rate and, if not, why not.

RESPONSE:

In accordance with the Board's Motion Decision on October 14, 2011, the Meter-Only Rate is no longer an issue in this proceeding.

RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES ON SUITE METERING EVIDENCE

INTERROGATORY 14:

Reference(s): Cost Allocation Model

Please provide a 'live' version of this model.

RESPONSE:

The 'live' version of the model was emailed to all participants on October 12, 2011.

RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES ON SUITE METERING EVIDENCE

INTERROGATORY 15:

Reference(s): Cost Allocation Model W I6.1 and O1
Exh L1/5/1/ p. 9

Re: Quadlogic Rate Class Revenue

a) Please provide a calculation of the revenue that would be generated from the Suite Meter class with the rates shown in Table 4. What revenue to cost ratio would result from these rates?

b) Please confirm that the revenue shown in cell E21 of worksheet O1 ($7,918,515) is the outcome of the existing approved Residential rates plus allocated Miscellaneous Revenue.

c) Please confirm that the revenue shown in cell E25 of worksheet O1 ($8,536,315) would be the outcome of the Residential distribution rates increased by 8.78% plus allocated Miscellaneous Revenue.

d) Please provide illustrative rates that would generate revenue of $7,277,195, i.e. the class revenue requirement in cell E40 ($8,156,811) less allocated Miscellaneous Revenue $878,875.

RESPONSE:

a) The revenue generated from the Quadlogic Rate Class using the rates shown in Table 4 is $7,621,402 (excluding the Miscellaneous Revenue of $566,373). This results in a revenue cost to ratio inclusive of the miscellaneous revenue of exactly 1.0 as described in the evidence.

RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES ON SUITE METERING EVIDENCE

b) The value shown in E21 of worksheet O1 is based on the existing approved Residential rates plus the allocated Miscellaneous Revenue.

c) The value shown in E25 of worksheet O1 is based on distribution at existing residential rates, increased by 8.9% (value shown in cell C22) plus allocated Miscellaneous Revenue.

d) The rates that would recover the amount shown in cell E40 less allocated miscellaneous revenue are the rates shown Table 4 of the direct evidence. As indicated, THESL has set the rates to exactly recover the allocated costs, so that the Revenue to Cost ratio is 1.0.

RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES ON SUITE METERING EVIDENCE

INTERROGATORY 16:

Reference(s): Cost Allocation Model W I7.2 and O1

Re: Allocated Cost of Meter Reading

a) Please confirm that the weighting factor of 3.60 that is applied to the Quadlogic rate class for Meter Reading in worksheet I7.2 results in a class revenue requirement that is approximately $525,000 higher than the outcome if the weighting factor were the same as for a Residential class customer (i.e. 1.00).

b) Please describe the frequency with which data is actually downloaded from meters in the Residential and Quadlogic rate classes, in order to address the question of whether the latter are downloaded twice as often and whether the cost is directly related to the frequency of "meter reading".

c) Please state in which class in the cost allocation model the load outside of the individual suites is included and how it is calculated (e.g. from a master meter less the load of each suite), and explain how the load in question is treated in the cost allocation model.

RESPONSE:

a) Confirmed.

b) Both meter types are read daily so the frequency of reading is not a factor in the meter reading cost between the two types of meters. The meter reading input sheet in the Cost Allocation model is used to weight and allocate to all rate classes the costs related to meter reading. The adjustment made to the units read for the Quadlogic class ensures consistent treatment across all rate classes in this sheet.

RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES ON SUITE METERING EVIDENCE

c) Building loads which are not part of the Quadlogic class loads are included in the GS 50-1000 class. The forecast of the GS class loads (which are done on a total class basis) is adjusted by subtracting the estimated loads of the Quadlogic class loads. These loads are used to allocate demand related costs to this class.

RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES ON SUITE METERING EVIDENCE

INTERROGATORY 17:

Reference(s): Cost Allocation Model W I7.2 and O1

Re: Installed Cost of Meters in the Quadlogic Class

There is an apparent inconsistency between the number of Quadlogic customers in worksheet I6.2 (24,898) and the number of installed meters in worksheet I7.1 (25,033).

a) Are these amounts correct, or should one of the data entries be changed?

b) The installed cost of the Quadlogic meters and the installed cost of 24,303 Residential meters are identical at $550 per meter. Please describe the components of equipment and installation cost of the meters for both the Quadlogic meters and these Residential meters.

RESPONSE:

a) The total number of meters shown in worksheet I7.1 will not exactly match the number of customers for any class. The difference in totals is generally due to meters held in inventory which are included in the amounts shown in worksheet I7.1.

b) In reviewing this interrogatory, THESL has identified an error in the cost assigned to this meter category. The average cost of 24,303 meters should be $595, and reflects costs for the following meter types:

- Collectors
- Three-phase self contained
- Single- and three-phase transformer rated meters
- Inside difficult to access A base with adapter installations

RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES ON SUITE METERING EVIDENCE

THESL has filed a corrected Cost Allocation model with the Interrogatory responses.

RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES ON SUITE METERING EVIDENCE

INTERROGATORY 18:

Reference(s): Cost Allocation Model W I3 and I4

Re: Allocated Costs of Services and Secondary Distribution Facilities

a) Please explain why THESL has reassigned amounts from distribution "conductor and devices" accounts 1835 and 1845 ($115 million and $272 million respectively) and assigned the costs to "services" account 1855.

b) Were the amounts transferred from the respective secondary voltage subaccounts in worksheet I4, i.e. accounts 1835-5 and 1845-5, or were amounts also transferred from the primary voltage sub-accounts?

c) Please confirm that the same transfer of assets from 1835 and 1845 to 1855 occurred in the previous cost allocations (November and February).

d) Please provide an estimate of the effect on the Quadlogic class revenue requirement of making this transfer of costs from the conductor accounts to the services account.

RESPONSE:

a) The reclassification of the amounts in OEB accounts 1835 and 1845 to account 1855 is required to transfer Services costs which were historically carried in accounts 1835 and 1845. With the implementation of the OEB Accounting Procedures Handbook for Electric Distribution Utilities (APH), effective January 1, 2000, a new account 1855 – Services was created. Services asset costs prior to January 1, 2000 were carried in accounts 1835 and 1845. The reclassification from accounts 1835 and 1845 to account 1855 – Services is required to properly include the pre-January 1, 2000 Services asset costs in account 1855 – Services.

RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES ON SUITE METERING EVIDENCE

b) The amounts reclassified from accounts 1835 and 1845 to account 1855 – Services represent the transfer of Services asset costs as defined in the APH under OEB account 1855 – Services, as follows:

> *"This account shall include the cost installed of overhead and underground conductors leading from a point where wires leave the last pole of the overhead system or the transformers or manhole, or the top of the pole of the distribution line, to the point of connection with the customer's electrical panel. Conduit used for underground service conductors shall be included herein."*

The Service costs amount was excluded / removed from accounts 1835 and 1845 prior to the breakout of accounts 1835 and 1845 into primary and secondary assets as required on Tab I4 of the Cost Allocation Model.

c) Confirmed.

d) Not applicable. See explanation above.

RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES ON SUITE METERING EVIDENCE

INTERROGATORY 19:

Reference(s): Cost Allocation Model W I5.2

Re: Services Weighting Factors

a) Please provide the justification for using a weighting factor of 1.0 for the Quadlogic class (which was the default value provided in the previous version of the Board's cost allocation model). Alternatively, considering that a multi-unit building would have only one service drop with perhaps some economy of scale compared to the same number of services to typical Residential customers, please explain why THESL did not use a weighting factor for the Quadlogic class other than 1.0.

b) Please confirm that the default weighting factor of 1.0 was used for the Quadlogic class and the Other Suite-Meter class in the February study.

RESPONSE:

a) The default weighting factor of 1.0 was maintained in the current analysis. THESL accepts that a weighting factor of less than 1.0 may be appropriate for the Quadlogic class. Replacing the weighting factor of 1.0 with a weighting factor of 0 (at the extreme) for the Quadlogic class has the effect of removing $103,000 from the Revenue Requirement for the Quadlogic class, and moving the R/C ratio to 101.8 (compared to 100.5 based on weighting of 1).

b) The default weighting of 1.0 was used in the BDR study.

RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES ON SUITE METERING EVIDENCE

INTERROGATORY 20:

Reference(s): Cost Allocation Model W I8
L1/T5/S1/p. 3

Re: Forecast of Average Consumption of customers in the Quadlogic class

a) Does THESL have billing information confirming that the monthly consumption per suite will likely decrease to 334 kWh per suite, compared to 361 kWh and 397 kWh for Quadlogic and Other Suite-metered in the February study?

b) Considering the forecast that average consumption in the Residential class will decrease to 677 kWh per customer, compared to 776 kWh per customer in the February study, please explain how much of this decrease is due to any difference in how the residential class is defined in the respective studies (eg. Inclusion of the "Other Suite Meter" customers), versus how much of the decrease is due to lower consumption within a typical dwelling unit.

c) Please describe how the near-zero consumption of vacant suites and vacant residences affects the average consumption statistics of suite-metered and residential customers.

d) Please provide the Quadlogic class revenue requirement that would result from an alternative assumption about consumption per suite, by replacing the assumption of 334 kWh per suite with the assumption of say 361 kWh per suite and making proportional changes to the Quadlogic input data in Worksheet I8.

RESPONSE:

a) The average monthly consumption of 334 kWh for the Quadlogic class was determined based on the most recent historical billing data, as described in the evidence. THESL has applied this consumption as a forecast for the current analysis.

RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES ON SUITE METERING EVIDENCE

b) The average monthly consumption for the "residual" Residential class in the current analysis was determined simply by removing the consumption of the Quadlogic class customers from the 2012 forecast of total Residential load in the EB-2011-0144 filing (which reflects all Residential customers as currently defined, including Quadlogic customers), and dividing by the average number of "residual" Residential customers for the year. The "residual" Residential average consumption will include some of the customers defined as "Other Suite Meter Class" in the BDR study, which had a lower average consumption than the BDR "Residential" class.

c) Please see response to Board Staff interrogatory 2 at Exhibit R4, Tab 1, Schedule 2.

d) Replacing the assumption of 334 kWh per month per suite with 361 kWh per month per suite increased the revenue requirement to $8,273K for the Quadlogic class (compared to $8,187K), and increases the Revenue to Cost ratio to 101.2 (compared to 100.5) as revenues are also higher. As noted in the sensitivity analysis presented in Table 3 of the evidence, when average monthly load was varied by one standard deviation of the sample (192 kWh), the Revenue/Cost ratios varied by approximately 4-5%.

RESPONSES TO CONSUMERS COUNCIL OF CANADA INTERROGATORIES ON SUITE METERING EVIDENCE

INTERROGATORY 1:

Reference(s): Exhibit L1, Tab 5, Schedule 4

The evidence states that THESL's contract with its vendor for the Quadlogic meters will expire at the end of 2011.

a) What is THESL doing in terms of securing another contract?

b) Has an RFP been issued?

c) What is the likelihood that the Quadlogic meters will continue to be used by THESL?

d) If not, are other brands likely to be comparable in terms of cost?

RESPONSE:

a) THESL is currently finalizing a request for proposal (RFP) that will be released before year end.

b) As of the due date of the interrogatory responses, the RFP has not been released.

c) It is likely that Toronto Hydro will continue to utilize QuadLogic meters for closet meter installations. However, the selection of a meter technology, other than QuadLogic, will only become apparent once the results of the RFP submission process are complete.

d) A comparison of costs cannot be undertaken until the results of the RFP have been reviewed. However, the supply of suite metering equipment is a competitive market so it is not anticipated that there will be significant cost differences among the metering equipment suppliers.

RESPONSES TO CONSUMERS COUNCIL OF CANADA INTERROGATORIES ON SUITE METERING EVIDENCE

INTERROGATORY 3:

Reference(s): none provided

The Smart Sub-metering Working Group has filed a motion claiming that THESL's Supplemental Evidence is "inadequate, contrary to and/or inconsistent with the Board's Partial Decision and Order dated June 7, 2011". What is THESL's position with respect to this claim?

RESPONSE:

Please refer to the correspondence dated October 12, 2011 from counsel for THESL to the Board and parties to the proceeding.

RESPONSES TO SMART SUB-METERING WORKING GROUP INTERROGATORIES ON SUITE METERING EVIDENCE

INTERROGATORY 1:

Reference(s): CA Model and Exhibit L1, Tab 4, Schedule 1 ("Updated BDR Study")

Preamble:

It is expected that if and when THESL produces its current Cost Allocation Model (the "CA Model") Exhibit L1, Tab 5, Schedule 2, filed September 30, 2011 in a live Excel format, and fully complies with the Board's Partial Decision & Order dated July 7, 2011, and Procedural Orders No. 10 and 11, that the SSMWG will have additional questions. .

As noted in the SSMWG's Notice of Motion dated October 7, 2011, it is not in a position to ask full and appropriate questions at this time given the failure of THESL to file its CA Model in a live Excel format and the inadequacy of its filing in other respects. The SSMWG therefore reserves the right to ask additional questions upon receipt of the information. The following interrogatories are also asked on a without prejudice basis to the position the SSMWG may take at the hearing of its motion.

Please file in a live Excel format the CA Model filed for THESL's Suite Meter Class, as required by the Ontario Energy Board's, *Filing Requirements for Transmission and Distribution Applications*, *Section 2.10.1 Cost Allocation Study Requirements*, page 37, issued June 22, 2011. The live Excel model should show all the formulas, inputs, and assumptions used in the model.

RESPONSE:

The 'live' version of the model was emailed to all participants on October 12, 2011.

RESPONSES TO SMART SUB-METERING WORKING GROUP INTERROGATORIES ON SUITE METERING EVIDENCE

INTERROGATORY 2:

Reference(s): CA Model and Exhibit L1, Tab 4, Schedule 1 ("Updated BDR Study")

Please provide all data and assumptions used in the CA Model with respect to the Suite Meter Class compared to the data and assumptions used in the Updated BDR Study and provide justifications for any differences in data and/or assumptions between the Updated BDR Study and the CA Model.

RESPONSE:

THESL believes it has provided a full and complete explanation of the data and assumptions used in the CA model (filed at Exhibit L1, Tab 5, Schedule 2, and the 'live' version emailed to participants on October 12, 2011) in its written evidence filed at Exhibit L1, Tab 5, Schedule 1. To assist, the attached table, which was filed as Exhibit KM1.2, summarizes where in the written evidence the assumptions are documented.

Detailed Listing of Assumptions Re. THESL's Analysis as contained in its Suite Metering Supplementary Evidence (filed September 30, 2011)

Topic/Assumption	Evidence Reference
Cost Data Forecast Period	Page 1, Lines 15-16
Overall Methodology	Page 1, Lines 20-22
Customers Forecast	Page 1, Lines 29-30, and Page 2, Line 1
Load Forecast	Page 2, lines 8-9, line 12, and line 18
Customers and Loads	Page 3, Table 1 (which includes specific comparison with BDR study)
Costs Other than Meter or Secondary	Page 3, Lines 7-12
Meter Costs	Page 3, lines 12-14, Page 4 Lines 7-11
Meter Reading Costs	Page 3, Lines 23-28
Secondary Costs	Page 4, Lines 13-14
Marketing Costs	Page 4, Lines 27-29
Sensitivity of R/C Ratio to Assumptions	Page 7, Table 3
Suite Meter Class Tariff	Page 7, lines 11-14, Page 8, Lines 1-2, 6-9, 14-15, 17-19
Meter Only Rate	Page 11, lines 17-19, Page 12, lines 10-14
Derivation of Meter Only Rate	Page 12, Table 5

RESPONSES TO SMART SUB-METERING WORKING GROUP INTERROGATORIES ON SUITE METERING EVIDENCE

INTERROGATORY 3:

Reference(s): **Exhibit L1, Tab 5, Schedule 1, Suite Metering Supplementary Evidence ("Supplementary Evidence") and Updated BDR Study**

On page 2, line 12, Supplementary Evidence, THESL estimates that the updated consumption for Quadlogic customers is now 334 kWh, compared to 361 kWh in the Updated BDR Study. Please provide a justification for such a large drop in consumption and provide the corresponding reduction in consumption for the remainder of the Residential Class (now 677 kWh).

RESPONSE:

Please see responses to Board Staff interrogatories 2 and 20 at Exhibit R4, Tab 1, Schedules 2 and 20, respectively.

RESPONSES TO SMART SUB-METERING WORKING GROUP INTERROGATORIES ON SUITE METERING EVIDENCE

INTERROGATORY 4:

Reference(s): **Exhibit L1, Tab 5, Schedule 1, Suite Metering Supplementary Evidence ("Supplementary Evidence") and Updated BDR Study**

In the Updated BDR Study, the load for other Suite Meter Multi Residential Class customers was calculated at 397 kWh per month on a normalized basis. The load used in the CA Model was decreased to 334 kWh per month from 361 kWh per month (pp. 2 and 3, Supplementary Evidence) as calculated in the Updated BDR Study.

a) Are the factors which THESL submits are responsible for reducing the Quadlogic Meter Class load applicable to other Suite Meter Class customers? Is it THESL's position that all multi-unit building customers using smart meters have experienced a decline in load relative to the Updated BDR Study, or is the change only limited to the 2012 Suite Meter Class? Please explain and fully justify THESL's reasoning and justification for any similarities or differences.

b) What would be the kWh per month (normalized) load for the other Suite Meter Class customers as defined in the Updated BDR Study using the current CA Model.

c) What are the drivers of the differences between the Suite Meter Class load and the other Suite Meter Class customers?

RESPONSE:

a) As indicated in the evidence, THESL has not done a detailed analysis of the change in loads between the BDR estimates and the current estimates. THESL is unable to speculate on causes. As noted in the filed evidence, THESL ran a scenario analysis around the load assumptions to determine the impact on the Revenue to Cost ratios,

RESPONSES TO SMART SUB-METERING WORKING GROUP INTERROGATORIES ON SUITE METERING EVIDENCE

and determined that even a 1 standard deviation range (+/- 192 kWh per month) around the loads most recently estimated produces a range +/- 4-5% on the Revenue to Cost ratio. Please also see responses to Board Staff interrogatories 2 and 20 found at Exhibit R4, Tab 1, Schedules 2 and 20, respectively.

b) THESL is unable to determine this, as it has not obtained recent data on "Other Suite Meter" class.

c) See response to part (a).

RESPONSES TO SMART SUB-METERING WORKING GROUP INTERROGATORIES ON SUITE METERING EVIDENCE

INTERROGATORY 5:

Reference(s): **Exhibit L1, Tab 5, Schedule 1, Suite Metering Supplementary Evidence ("Supplementary Evidence") and Updated BDR Study**

On page 4, lines 16 to 18, Supplementary Evidence, THESL states that the Quadlogic meter costs were allocated to the Quadlogic Customer Class: "...using the model's meter cost weighting factors" rather than using direct allocation of costs." Does THESL agree that directly allocating costs to a customer class is a preferred method of reflecting cost causality than using weighting factors, when proper information is available? If not, please explain why not?

RESPONSE:

Please see response to Board Staff Interrogatory 10 at Exhibit R4, Tab 1, Schedule 10.

RESPONSES TO SMART SUB-METERING WORKING GROUP INTERROGATORIES ON SUITE METERING EVIDENCE

INTERROGATORY 6:

Reference(s): **Exhibit L1, Tab 5, Schedule 1, Suite Metering Supplementary Evidence ("Supplementary Evidence") and Updated BDR Study**

On page 4, lines 20 to 24, Supplementary Evidence, THESL states that its meter reading costs are expected to be reduced as the reading of the meters has moved in-house, and it adjusts the weighting factor as a result.

a) Does THESL have a specific date when it will move its meter reading in-house?
b) Has THESL prepared a budget (whether in draft or approved) itemizing all of the costs to take the meter reading function in-house? If so, please produce the budget.
c) Is THESL contemplating issuing an RFP to replace all or any portion of the work currently undertaken under contract with Trilliant? If so, what portion of the work is involved in such a RFP? If THESL has prepared a RFP (whether in draft or finalized) to seek a third party vendor please produce a copy.
d) What assumptions has THESL made for the purposes of the CA Study in respect of the annual costs of maintenance and replacement of Quadlogic meters? Will this work continue to be performed by Trilliant (or another vendor) and if so, at what cost?

RESPONSE:

a) THESL is currently testing and evaluating meter reading systems that will allow meter data management functions to be brought in-house. Although there is no specific date, if the testing is successful Toronto Hydro would transition this function in-house the first half of 2012.

RESPONSES TO SMART SUB-METERING WORKING GROUP INTERROGATORIES ON SUITE METERING EVIDENCE

b) The budget breakdown is shown below:

CAPEX

Hardware	$0
Software	$100,000
Labour	$160,000
External	$0
Total	$260,000

OPEX (per year)

IT Support	$100,000
Labour	$202,500
External	$0
Total	$301,000

Capex (per year)

Software	**$30,400**

c) THESL intends to issue an RFP for the supply, installation and maintenance of unit smart metering systems in multi-unit complexes. The RFP is still in the process of being drafted internally. THESL's RFP is a confidential document and, pursuant to the terms of the RFP, only respondents invited to provide a proposal in response to the RFP are permitted to view the RFP.

d) Overall meter maintenance costs are allocated to all classes based on the CA model logic. Quadlogic meters are not expected to have any material maintenance costs in 2012 as most meter replacements and maintenance costs are covered under warranty.

RESPONSES TO SMART SUB-METERING WORKING GROUP INTERROGATORIES ON SUITE METERING EVIDENCE

INTERROGATORY 7:

Reference(s): **Exhibit L1, Tab 5, Schedule 1, Suite Metering Supplementary Evidence ("Supplementary Evidence") and Updated BDR Study**

On page 4, lines 20 to 24, Supplementary Evidence, it states that the weighting factors for Quadlogic customers has been reduced from 7 used in the Updated BDR Study to 3.6 because the meter reading is expected to be performed in-house. Please provide explanations, with examples to support the reduction in weighting factors.

RESPONSE:

The weighting factor of 7 was based on a lower volume of meters hosted by a third party provider. As the volume of suite meters increases and is transitioned in-house, the average cost will be reduced. Please refer to the response to Board Staff Interrogatory 6 for more details (Exhibit R4, Tab 1, Schedule 6).

RESPONSES TO SMART SUB-METERING WORKING GROUP INTERROGATORIES ON SUITE METERING EVIDENCE

INTERROGATORY 8:

Reference(s): **Exhibit L1, Tab 5, Schedule 1, Suite Metering Supplementary Evidence ("Supplementary Evidence") and Updated BDR Study**

Page 5, Supplementary Evidence – Has THESL undertaken any further review of the secondary distribution costs attributable to its Quadlogic Suite Metered customers, other than the engineering estimates as set out in the Updated BDR Study and the original BDR report (November 29, 2010)?

RESPONSE:

THESL has not undertaken any further review. However, as noted in evidence, since 2009, most of the additional Quadlogic customers have been added to the primary system.

RESPONSES TO SMART SUB-METERING WORKING GROUP INTERROGATORIES ON SUITE METERING EVIDENCE

INTERROGATORY 9:

Reference(s): **Exhibit L1, Tab 5, Schedule 1, Suite Metering Supplementary Evidence ("Supplementary Evidence") and Updated BDR Study**

Page 5, Supplementary Evidence – What percentage of currently bulk metered multi-unit residential buildings (both condominium and residential tenancy) are served by THESL's secondary system? Does THESL agree that older, smaller multi-unit residential buildings tend to be more commonly served by the secondary system than larger high rise new multi-unit condominiums?

RESPONSE:

BDR estimated, based on information from THESL professional staff, that approximately 30% of the total multi-unit residential buildings were served by the secondary system in 2009. As indicated in the current evidence, the most recent multi-residential buildings (including the buildings served by Quadlogic metering) are larger buildings, which would not be served by the secondary system.

THESL does agree that older, smaller multi-unit residential buildings are more likely to be served by secondary than larger high rise new multi-unit condominiums.

RESPONSES TO SMART SUB-METERING WORKING GROUP INTERROGATORIES ON SUITE METERING EVIDENCE

INTERROGATORY 10:

Reference(s): **Exhibit L1, Tab 5, Schedule 1, Suite Metering Supplementary Evidence ("Supplementary Evidence") and Updated BDR Study**

Page 5, Supplementary Evidence – THESL states that in 2012, there are no marketing dollars included in the budget for suite meter activity and hence no expenses have been directly allocated to the Suite Meter Class.

a) Will THESL be removing from its Website all references to its Quadlogic Suite Meter offering and all links to related web pages?

b) Is THESL confirming that it will undertake no promotion of its Quadlogic Suite Meter program either directly or through a third party?

c) Please provide a detailed job description for all THESL employees that currently have responsibility to promote or market the Quadlogic Suite Meter offering to manage and negotiate accounts with prospective customers, and to respond to enquiries and/or prepare Offers to Connect which contemplate the installation of the Quadlogic Suite Metering system. Please advise in detail how these functions will be reduced in 2012.

d) What specifically (with all costs noted) will THESL not do in 2012 that it did in 2011 in respect of the marketing, promotion and support provided to prospective Quadlogic Meter customers?

RESPONSE:

a) No, THESL will not be removing references to its Suite Metering offering.

b) No, THESL will continue to solicit customers with the main focus being the new

RESPONSES TO SMART SUB-METERING WORKING GROUP INTERROGATORIES ON SUITE METERING EVIDENCE

construction market. THESL achieves sales in this market using a direct sales approach to the property developers. This is achieved via THESL's contracted vendor, who promotes the installation of suite meters through a direct sales strategy with key developers. This is expected to continue under any new contractual relationship when the contract is renewed in 2012.

c) No employees currently are involved in promoting or marketing THESL's Suite Metering program. One THESL staff handles the occasional incoming enquiry. Offers to Connect are managed by THESL's Asset Management division and are not involved in promoting THESL's suite metering program.

d) THESL will continue in 2012 with the same direct sales approach that was employed in 2011 so there is no incremental change. To expand on the answer above, THESL's main business is in the new construction market using a direct sales strategy, which does not require intensive marketing. The other market THESL is obligated to serve is "as the vendor of last resort", which does not require a marketing effort.

RESPONSES TO SMART SUB-METERING WORKING GROUP INTERROGATORIES ON SUITE METERING EVIDENCE

INTERROGATORY 11:

Reference(s): **Exhibit L1, Tab 5, Schedule 1, Suite Metering Supplementary Evidence ("Supplementary Evidence") and Updated BDR Study**

At page 9, lines 19 through 23, Supplementary Evidence, THESL states that in the case of converting rental buildings, increased costs to the landlord may then be reflected in reduced maintenance or capital expenditures or in rent increases to the remaining unconverted tenants. Please provide all evidence that THESL has in support of this statement and any other evidence of the alleged prejudice to tenants.

RESPONSE:

In accordance with the Board's Motion Decision on October 14, 2011, the Meter-Only Rate is no longer an issue in this proceeding.

RESPONSES TO SMART SUB-METERING WORKING GROUP INTERROGATORIES ON SUITE METERING EVIDENCE

INTERROGATORY 12:

Reference(s): **Exhibit L1, Tab 5, Schedule 1, Suite Metering Supplementary Evidence ("Supplementary Evidence") and Updated BDR Study**

Page 10, lines 2 through 5, Supplementary Evidence – THESL states that in respect of new rental buildings or condominiums there is a period of time where units are habitable and electricity consumption occurs but have not yet been occupied for the first time.

a) Does THESL agree that in respect of unoccupied and habitable condominium and rental units electricity consumption still occurs by virtue of, for example, any combination of the following:
    i) the installation and operation of a refrigerator;
    ii) lights turned on to permit showings in a unit;
    iii) any fans and other HVAC equipment operated manually or automatically for the purposes of maintaining the atmosphere and humidity of a unit;
    iv) clocks on stoves installed in units; and
    v) operation of other equipment, including electric water heaters, etc.?

RESPONSE:

In accordance with the Board's Motion Decision on October 14, 2011, the Meter-Only Rate is no longer an issue in this proceeding.

RESPONSES TO SMART SUB-METERING WORKING GROUP INTERROGATORIES ON SUITE METERING EVIDENCE

INTERROGATORY 13:

Reference(s): **Exhibit L1, Tab 5, Schedule 1, Suite Metering Supplementary Evidence ("Supplementary Evidence") and Updated BDR Study**

Page 10, lines 19 to 23, Supplementary Evidence: Has THESL developed terms and conditions applicable to its proposed new Meter Only rate for converting buildings? If so, please produce?

RESPONSE:

In accordance with the Board's Motion Decision on October 14, 2011, the Meter-Only Rate is no longer an issue in this proceeding.

RESPONSES TO SMART SUB-METERING WORKING GROUP INTERROGATORIES ON SUITE METERING EVIDENCE

INTERROGATORY 14:

Reference(s): **Exhibit L1, Tab 5, Schedule 1, Suite Metering Supplementary Evidence ("Supplementary Evidence") and Updated BDR Study**

How will THESL police its Meter Only rate? More specifically, without limiting the generality of this question, how will THESL know when a customer has consented to a unit being suite metered or an unoccupied unit has been occupied?

RESPONSE:

In accordance with the Board's Motion Decision on October 14, 2011, the Meter-Only Rate is no longer an issue in this proceeding.

RESPONSES TO SMART SUB-METERING WORKING GROUP INTERROGATORIES ON SUITE METERING EVIDENCE

INTERROGATORY 15:

Reference(s): **Exhibit L1, Tab 5, Schedule 1, Suite Metering Supplementary Evidence ("Supplementary Evidence") and Updated BDR Study**

Page 12, lines 10 through 12, Supplementary Evidence – THESL forecasts that the incremental administrative costs associated with maintaining information on unconverted units, calculating and adding Meter Only costs to a GS bill will be approximately $53,000. Please provide a breakdown of the components of this estimate.

RESPONSE:

In accordance with the Board's Motion Decision on October 14, 2011, the Meter-Only Rate is no longer an issue in this proceeding.

RESPONSES TO SMART SUB-METERING WORKING GROUP INTERROGATORIES ON SUITE METERING EVIDENCE

INTERROGATORY 16:

Reference(s): **Exhibit L1, Tab 5, Schedule 1, Suite Metering Supplementary Evidence ("Supplementary Evidence") and Updated BDR Study**

Has THESL adjusted the estimated number of customers in its Suite Meter Class for 2012 to reflect the removal of those units which would not be billed under the Quadlogic Suite Meter Class but would rather be subject to the Meter-Only rate? Please provide the details of all adjustments made, if any, to reflect the addition of the proposed Meter-Only rate.

RESPONSE:

All of the forecast 24,898 Quadlogic customers have been assumed to be billed under the Quadlogic class for the Cost Allocation study.

RESPONSES TO SMART SUB-METERING WORKING GROUP INTERROGATORIES ON SUITE METERING EVIDENCE

INTERROGATORY 17:

Reference(s): CA Model

	ID	Total	Residential	Quadlogic
Billing Data				
Bad Debt 3 Year Historical Average	BDHA	$7,628,705	$4,352,164	$145,100
Late Payment 3 Year Historical Average	LPHA	$5,000,000	$2,289,422	$419,927

a) Please explain the reasons why the Residential Class, Late Payment 3 Year Historical Average is approximately half the amount of Bad Debt 3 Year Historical Average, while for Quadlogic Class Late Payment 3 Year Historical Average is almost three times the Bad Debt 3 Year Historical Average.

b) Does THESL agree that the data indicates that Quadlogic incurs proportionally more late payments that Residential class?

c) Does THESL agree, therefore, that more billing and collecting costs would be incurred by THESL for Quadlogic Class than for Residential Class?

RESPONSE:

a) In preparing a response to this interrogatory, THESL discovered an error in the values entered in the CA model for Bad Debt and Late Payments for the Quadlogic class. Those values should have been based on the same assumptions as the BDR study, however there was an error in transferring those values into the current CAS model from the BDR model. The correct values have been reflected in the corrected CA model submitted with the interrogatory responses.

RESPONSES TO SMART SUB-METERING WORKING GROUP INTERROGATORIES ON SUITE METERING EVIDENCE

b) No. While THESL does not have statistics to support a conclusion one way or another, THESL does not believe there would be a material difference in Bad Debt or Late Payment experience between Quadlogic served customers and other Residential customers. This is discussed in the original BDR study (Exhibit L1, Tab 3, Schedule 1, page 16).

c) No. Please see (b) above.

RESPONSES TO SMART SUB-METERING WORKING GROUP INTERROGATORIES ON SUITE METERING EVIDENCE

INTERROGATORY 18:

Reference(s): Supplementary Evidence

Does THESL agree that Suite Meter Class operates in a competitive environment while the remaining Residential class customers do not?

RESPONSE:

THESL does not agree with the simplistic characterization of market conditions embodied in the question.

THESL does agree that sub-meterers compete among themselves for sub-metering business, and that THESL's regulated service is an alternative to sub-metering for property owners considering unit metering for their buildings. THESL also agrees that at present it is the only licensed distributor in the City of Toronto for the conventional residential class. However, THESL does not agree that the unit metering sector overall can be characterized simply as 'competitive' for reasons set out below.

<u>Supplier of Last Resort</u>

Distributors are required by Section 5.1.9 of the Distribution System Code to be suppliers of last resort in the unit metering market. That Section provides as follows:

> 5.1.9 When requested to do so by a master consumer, a distributor shall install unit smart meters that meet the specifications prescribed by Ontario Regulation 389/10.

THESL is not aware of any other instances of a 'competitive market' in which a single 'competitor' is legally obliged to do business which other competitors have the option to

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decline. In fact, a hallmark of competition is that it is voluntary – no buyer is forced to buy from a given seller and no seller is forced to supply a given buyer.

Price Competition

There are two areas of price competition in the unit metering market. First, competition exists with respect to securing the building contract. In that context, sub-meterers are free to adjust their quotes according to competitive conditions. In the course of conducting its suite metering business, THESL was asked what inducement it could offer but of course had to decline to offer any inducement because THESL's offers to connect are strictly regulated as to form and method of calculation. THESL is not obliged to connect any customer in any circumstance without a capital contribution, but the methodology of calculating that contribution is governed by the Distribution System Code and THESL cannot discriminate between customers in the application of capital contributions.

The second area of price competition concerns rates paid by end-use customers. Once a unit metering system is installed in a building, it is a practical reality that the occupants of the building are captive customers of the unit metering supplier for the long term. The difference between THESL and sub-meterers is that THESL's retail rates are regulated; those of sub-meterers are not. Sub-meterers can charge captive customers whatever rates they please and can increase those rates at will within the confines of the contracts they sign.

THESL understands that the Board has no appetite to regulate the rates for the services provided by sub-meterers. However, the rate structure for at least one sub-meterer[1] does

[1] See Enercare website, http://www.enercareconnections.com/EEC/BillComponents.aspx

RESPONSES TO SMART SUB-METERING WORKING GROUP INTERROGATORIES ON SUITE METERING EVIDENCE

not separate wholesale costs (i.e., costs at the bulk meter for electricity delivered as a bundled service) from the rate for the service provided by that sub-meterer. This makes it possible for that sub-meterer to mark up and resell the electricity delivered to the building for a profit, contrary to the requirements for the conduct of exempt distribution, under the pretence that the rates charged to captive customers are competitively determined.[2]

In view of these distortions and defects in the unit metering market, THESL cannot agree with the simplistic statement that that market is 'competitive' in the usual sense of that word.

[2] See Section 4.0.1 of O. Reg. 161/99

RESPONSES TO SMART SUB-METERING WORKING GROUP INTERROGATORIES ON SUITE METERING EVIDENCE

INTERROGATORY 19:

Reference(s): Supplementary Evidence

Does THESL agree that in a competitive environment the rate design of distribution rates is more critical in sending a correct price signal compared to a rate design in a noncompetitive environment? If not, please explain why not.

RESPONSE:

Please also see response to SSMWG Interrogatory 18 at Exhibit R4, Tab 3, Schedule 18.

The question as posed is ambiguous since it does not specify the object of 'sending a correct price signal'.

If the object of the 'correct price signal' is to incent efficient or optimal consumption of electricity, economic theory dictates that the marginal price should equal the marginal cost of production. THESL's regulated rates approximate this through the application of TOU rates for commodity and a fixed/variable rate design for distribution costs, although distribution costs are arguably fixed with respect to incremental variations in consumption.

If the object is to promote transparency in the unit metering market to facilitate informed customer choice, then THESL's view is that the most important factor is comparability between offerings. Right now, that comparability is substantially impaired if not entirely absent because of the practice of at least one sub-meterer[1] which has chosen a rate design

[1] See http://www.enercareconnections.com/EEC/BillComponents.aspx

RESPONSES TO SMART SUB-METERING WORKING GROUP INTERROGATORIES ON SUITE METERING EVIDENCE

that is extremely difficult to compare to the residential rates of any regulated electricity distributor in the province. OEB-approved residential rates for distributors are based on a fixed monthly charge and a per kWh variable charge. In contrast, the rates for the noted sub-meterer are based on a fixed monthly charge and (non-coincident) peak demand per day variable charge.

This rate design makes rate comparisons exceedingly difficult for all but the most sophisticated residential customers, many of whom have no particular concept of electrical demand per se. It also has a high potential to be extremely confusing and misleading to customers since it is non-parallel with the extensive customer communication that has been sponsored by the Province, utilities, and the Board with respect to TOU rates. That communication focuses on time periods during which electricity costs will be relatively higher or lower. Customers that absorb that information are expressly encouraged to concentrate their electrical consumption in off-peak periods. But by doing that they are considerably more likely to run their high-consumption appliances at the same time, which acts to increase their measured non-coincident daily demand, their sub-meterer bill, and the profits of the sub-meterer, whose costs do not vary with demand.

In the case of larger buildings which are bulk metered in the larger general service classes with a demand billing determinant, that rate design also allows the sub-meterer to exploit the diversity of demand within the building for further profit. It is elementary to demonstrate that unless the demands of all the building occupants are perfectly coincident, the sum of the individual demands will exceed the measured building demand. This effect is even more pronounced given that the bulk meter demand

RESPONSES TO SMART SUB-METERING WORKING GROUP INTERROGATORIES ON SUITE METERING EVIDENCE

determinant is monthly, whereas the individual unit demands are daily. Given that in all realistic circumstances the sum of individual demands will exceed the building demand, even if the nominal rate applied to the unit demand was identical to the rate applied to the bulk meter, and unit demand was measured monthly instead of daily, the sub-meterer would literally receive money for nothing due to its exploitation of diversity of demand within the building.

In THESL's view the arrangement that is most conducive to transparency, comparability, informed customer choice, and effective competition in the unit metering market would be one under which sub-meterers would be required as a condition of licence to separate the rate that recovers the wholesale bulk meter cost incurred by the exempt distributor from the rate that recovers the sub-meterer's own costs for the services it provides. The fixed monthly bulk meter charge would be divided by the number of separate accounts in the building, and the variable charge would be transparently allocated to each unit in proportion to that unit's contribution to the variable billing determinant. This arrangement would preclude the possibility of the sub-meterer recovering an amount in excess of the wholesale bill and improperly profiting by doing so.

The remaining rate component(s) which would recover the sub-meterer's own costs and profit margin would continue to be unregulated by the Board, but would under this arrangement be more readily understood by customers and more nearly comparable. If the Board wished to enhance comparability it could direct by way of licence condition that the sub-meterer's own costs be recovered by a fixed monthly charge.

RESPONSES TO SMART SUB-METERING WORKING GROUP INTERROGATORIES ON SUITE METERING EVIDENCE

INTERROGATORY 20:

Reference(s): **Suite Metering Supplementary Evidence, Exhibit L1, Tab 5, Schedule 1 ("Supplementary Evidence")**
Cost Allocation Model ("CA Model"), Exhibit L1, Tab 5, Schedule 2

THESL takes the position that fewer secondary costs should be allocated to Quadlogic Suite Meter customers because it believes that a larger percentage of the buildings served do not rely upon any secondary systems. It therefore follows that these buildings rely entirely on primary systems. It is noted at Sheet I9 "Direct Allocation Worksheet" of the CA Model that several USoA accounts have been directly allocated to the General Service Customers 50 – 999 and 1000 – 4999. These rate classes include as customers the common elements of buildings that contain Quadlogic Suite Meter Customers.

a) Does it not logically follow that for the same reasons that a general service "customer" is directly allocated costs and expenses, such as underground conduit (USofA 1840) and underground distribution lines (USofA 5045), that some of these costs should be directly allocated to the Quadlogic Suite Metered Class? If you disagree with this premise, please state your reasons in detail.

b) How are the amounts that are directly allocated to the General Service Customers 50 to 999 and 1000 to 4999 at USofA accounts 1840, 1845, 2105, 5040, 5045, 5150 and 5705 determined? Please provide any rationale used for determining the allocating factor or any other basis for the direct allocation of these accounts to these rate classes.

RESPONSES TO SMART SUB-METERING WORKING GROUP INTERROGATORIES ON SUITE METERING EVIDENCE

RESPONSE:

a) In accordance with "OEB Cost Allocation Review – Board Directions on Cost Allocation Methodology for Electricity Distributors", September 29, 2006 (RP-2005-0317): *"A distributor should identify any significant distribution facilities that are dedicated exclusively to only one customer rate class. The cost of such a facility, and the associated OM&A expenses, should then be directly allocated to the customer classification that it is exclusively dedicated to." "The consultations for this project indicated that direct allocation should be explored in the following circumstances: ..... * A feeder that is 100% dedicated to customer(s) in the same classification....." "Direct allocation must be applied if, and only if, 100% of the use of a clearly identifiable and significant distribution facility can be tracked directly to a single rate classification."*

In the cost allocation studies filed by THESL in previous rate filings, THESL has filed in accordance with these directions. With the addition of the Quadlogic class, and in accordance with the directions, THESL believes that some of these directly allocated costs may no longer meet the criteria. In other words, some of the costs previously identified as dedicated may now be serving both the Quadlogic class and the GS 50-999kW class. THESL has not, for the purposes of this study, done the detailed assessment as to how much of the directly allocated costs may no longer be directly allocable to the GS 50-999kW class. THESL notes however that of the total $2.9 million of revenue requirement allocated through direct allocation, only $222 thousand is currently allocated to the GS 50-999kW class (of which Quadlogic metered buildings are a small proportion of the total customer base).

RESPONSES TO SMART SUB-METERING WORKING GROUP INTERROGATORIES ON SUITE METERING EVIDENCE

b) In accordance with the above Board Directions, amounts have been directly allocated to the GS 50-999, the GS 1000-4999 and the Large Use >5MW customer rate classes for their respective identified dedicated feeders. An allocation for the capital cost of the dedicated feeders has been made to accounts 1840 Underground conduit and 1845 Underground conductors and devices, which are the OEB USofA accounts which carry the feeder capital costs. The associated allocation of OM&A for these allocated capital costs has been made to accounts 5040 – Underground Distribution Lines and Feeders – Operation Labour, 5045 – Underground Distribution Lines & Feeders - Operation Supplies & Expenses and 5150 – Maintenance of Underground Conductors and Devices, which are the OEB USofA accounts which carry the associated OM&A for these dedicated feeders. The associated allocation of amortization expense for these capital costs has been made to account 5705 – Amortization Expense – Property, Plant, and Equipment, which is the USofA account which carries the associated amortization expense for these dedicated feeders.

Dedicated feeders by customer rate class were identified. The dollar amount for allocation from rate base accounts 1840 and 1845 was determined, based upon the value of dedicated feeders by customer rate class relative to the rate base value of all feeders in accounts 1840 and 1845. This same basis was used to determine the portion of amortization expense for direct allocation relative to the total feeder amortization expense in account 5705. This same basis was used to determine the portion of OM&A for direct allocation relative to the total OM&A costs in accounts 5040, 5045 and 5150.

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INTERROGATORY 21:

Reference(s): Supplementary Evidence
Updated BDR Study (Exhibit L1, Tab 4, Schedule 1)

Is the decrease in estimated consumption for the Quadlogic Suite Meter Class in part driven by THESL's estimates as to the number, percentage and/or consumption pattern of vacant units (either before first occupancy, or during a turnover)? If vacancy rates or consumption during unoccupied periods has been used by THESL to in any way influence the consumption rate (THESL has estimated 334 kWh/month in the CA Model) please provide all assumptions and data and a justification for the use of the assumptions and data.

RESPONSE:

Please see responses to Board Staff interrogatory 2 and 20 at Exhibit R4, Tab 1, Schedules 2 and 20, respectively.

RESPONSES TO SMART SUB-METERING WORKING GROUP INTERROGATORIES ON SUITE METERING EVIDENCE

INTERROGATORY 22:

Reference(s): Supplementary Evidence

CA Model

For the purposes of the Updated BDR Study and CA Model, what depreciation rate has been used for Quadlogic meters?

RESPONSE:

A depreciation rate of 15 years is used for both Quadlogic and residential Smart Meters.

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INTERROGATORY 23:

Reference(s): Supplementary Evidence

CA Model

What is the depreciation rate used for Residential Smart Meters (i.e., non-Quadlogic)?

RESPONSE:

A depreciation rate of 15 years is used for both Quadlogic and residential Smart Meters.

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INTERROGATORY 24:

Reference(s): Supplementary Evidence
CA Model

What is THESL's experience in respect of the need for repair to and replacement of Quadlogic meters versus residential smart meters (i.e., non-Quadlogic)?

RESPONSE:

As noted in the response to SSMWG interrogatory 6 d), THESL has only limited experience as the replacements have been carried out under warranty. However, given the evolution of metering equipment THESL expects the two metering types to be comparable.

RESPONSES TO SMART SUB-METERING WORKING GROUP INTERROGATORIES ON SUITE METERING EVIDENCE

INTERROGATORY 25:

Reference(s): CA Model, Sheet I7.1 "Meter Capital Worksheet"

It appears that under the Residential Class, Column 1, of the total number of meters (612,458), 560,043 are smart meters (at an average cost of $159) and there are an additional 24,303 meters at an average cost of $550 (i.e., LDC Specific 2). For the Quadlogic Class (LDC Specific 3), Column 1 indicates a total of 25,033 Quadlogic Suite Meters at an average cost of $550. It therefore appears that Quadlogic meters are being included in both the Quadlogic Class and in the Residential Class.

a) Please explain in detail why 24,303 Quadlogic Meter Customers appear to continue to reside within the Residential Rate Class.

b) Please provide a justification for continuing to include these meters in the Residential Class.

RESPONSE:

Please see response to Board Staff interrogatory 17 at Exhibit R4, Tab 1, Schedule 17. A corrected Cost Allocation model has been filed.

RESPONSES TO SMART SUB-METERING WORKING GROUP INTERROGATORIES ON SUITE METERING EVIDENCE

INTERROGATORY 26:

Reference(s): **CA Model**

Updated BDR Study

Please undertake a further Cost Allocation Study analysis and provide the results using the assumptions and data used in the CA Model, but making the following adjustments:

a) Consumption estimates for the Quadlogic Meter Class remain at 361 kWh per month, as assumed in the Updated BDR Study. Please also make the necessary adjustments to demand to reflect this change in consumption.

b) Please assume that the weighting factor for meter reading costs remains at 7, as assumed in the Updated BDR Study; and

c) Please directly allocate to the Quadlogic Meter Class all of the Quadlogic Meter costs rather than using the CA Model's Meter Cost Weighting Factors.

RESPONSE:

Based on the assumptions described above, the results of the Cost Allocation model for the Quadlogic and Residential class are shown in the table below.

	Quadlogic Class	Residential Class
Revenues	$8,382,979	$237,664,115
Revenue Requirement	$9,294,227	$266,101,118
Revenue/Cost Ratio	90.2%	89.3%

With respect to the direct allocation of the Quadlogic meter costs, please also see response to Board Staff interrogatory 10 at Exhibit R4, Tab 1, Schedule 10.

RESPONSES TO SMART SUB-METERING WORKING GROUP INTERROGATORIES ON SUITE METERING EVIDENCE

INTERROGATORY 27:

Reference(s): Supplementary Evidence, p. 8

THESL's Supplementary Evidence states that for the purposes of the rate design of the proposed Quadlogic Suite Meter Class, THESL has maintained the same proportion of revenue recovered from the fixed and variable charges for the new classes. Please provide a detailed breakdown of the methodology used and calculations which generated the proposed fixed variable split, as set out in Table 4 of the Supplementary Evidence (p. 9).

RESPONSE:

Please see response to VECC interrogatory 8 at Exhibit R4, Tab 4, Schedule 8.

RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES ON SUITE METERING EVIDENCE

INTERROGATORY 1:

Reference(s): Exhibit L1, Tab 5, Schedule 1, pages1-3

a) Was the load shape for the Quadlogic customers assumed to be the same as that set out in Exhibit L1, Tab 4, Schedule 1 (i.e., the relationship between kWhs, NCP and CP values the same as in Table 4.2 from that Exhibit)?

b) If not, what is the basis for the NCP and CP values in the current evidence?

c) With respect to Table 1, how many buildings are associated with the 24,898 suite metered customers?

RESPONSE:

a) Yes, the load shapes were assumed to be the same, and the relationship between the NCP and CP values were adjusted to reflect the updated kWh consumption and the number of customers.

b) See above.

c) Please see response to Board Staff Interrogatory 1 at Exhibit R4, Tab 1, Schedule 1.

RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES ON SUITE METERING EVIDENCE

INTERROGATORY 2:

Reference(s): Exhibit L1, Tab 5, Schedule 1, page 3
2012 Cost Allocation, Quadlogic Class, Sheet I5.2

a) BDR and THES concluded as part of Exhibit L1, Tab 3, Schedule 1 that the only significant differences in servicing suite-metered residential customers versus traditional residential customers were with respect to the functional cost areas of meter costs (including meter reading) and secondary distribution costs. The original analysis does not appear to have addressed the Services function (i.e. USOA #1855). Please discuss the differences in "Services" costs as between these two customer categories – recognizing that for suite-metered customers only one "service drop" is required to serve all the suites in an apartment/condominium building.

b) What is the basis for assuming that (per Sheet I5.2) Residential and Quadlogic customers should have the same weighting factor for "Services"?

RESPONSE:

a) and b) Please see response to Board Staff Interrogatory 19 at Exhibit R4, Tab 1, Schedule 19.

RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES ON SUITE METERING EVIDENCE

INTERROGATORY 3:

Reference(s): Exhibit L1, Tab 5, Schedule 1, page 4
2012 Cost Allocation, Quadlogic Class, Sheet I7.1

a) With respect to Sheet I7.1, what is the difference between Meter Types LDC Specific 1, LDC Specific 2 and LDC Specific 3, in terms of the type of meter involved?

b) How were the costs per meter for each type of meter listed in Sheet I7.1 determined? In each case, was the scope of the costs included the same and was the reference year for the cost the same?

RESPONSE:

a) LDC Specific 1 is an average of all self contained single phase socket non-collector smart meter installations during our mass deployment where the efficiencies of installing meters on consecutive addresses ensured the lowest possible labour and vehicle costs.

Those meter types in would have included:

- Network, 120/208 V 200 Ampere or less Form 12S Self-Contained
- 1 Phase 2 Wire, 120 V 100 Ampere or less Form 1S Self-Contained
- 1 Phase 3 Wire, 240 V 200 Ampere or less Form 2S Self-Contained

LDC specific 2 is an average of all higher cost meter installations.

- Collector meters
- Three-phase self contained 4 wire form s16
- Single- and three-phase transformer rated services conventional and smart

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- Inside difficult to access A base with adaptor installations
- Various AMI technology pilot installations and replacements

LDC Specific 3 are Quadlogic meters.

b) Meter costs are determined based on labour hours, vehicle hours, meter costs and meter accessories cost. Costs are based on the volume and scope of work by year, which may impact the overall installation cost year to year.

RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES ON SUITE METERING EVIDENCE

INTERROGATORY 4:

Reference(s): **EB-2011-0144, Exhibit L1, Tab 2, Schedule 1 – 2012 Cost Allocation, Sheet I7.1**
2012 Cost Allocation, Quadlogic Class, Sheet I7.1

a) Please explain why the number of units reported for each of the customer classes is materially different as between the 2012 Cost Allocation filed in EB-2011-0144 and that filed in the current evidence for EB-2010-0142. Note – this applies to both the total for the residential class as well as the other customer classes.

b) Why aren't the residential Quadlogic metered customers separated out for a different meter reading weighting in the EB-2011-0144 Cost Allocation?

RESPONSE:

a) The number of units in I7.1 worksheet in both the 2012 Cost Allocation filed in EB-2011-0144 and that filed in the current evidence for EB-2010-0142 are identical except that the current evidence separates out the Quadlogic from the remaining Residential class. THESL does not see a difference. (Note: The value for streetlighting is incorrect in the EB-2011-0144 filing, and will be corrected in that process.)

b) The EB-2011-0144 filing was developed on the basis of the existing residential class. If, as a result of this phase of the EB-2010-0142 hearing, the Board orders the establishment of a Quadlogic class, THESL will update the EB-2011-0144 cost allocation and rate design evidence.

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INTERROGATORY 5:

Reference(s): **EB-2011-0144, Exhibit L1, Tab 2, Schedule 1 – 2012 Cost Allocation, Sheet I6.2**
2012 Cost Allocation, Quadlogic Class, Sheet I6.2

a) Please explain why the total Residential bills in EB-2011-0144 does not equal the sum of the Quadlogic and Remaining Residential bills from the Cost Allocation filed in this proceeding.
b) Please explain why the number of Secondary Customers (CCS) for Residential in EB-2011-0144 does not equal the sum of the Quadlogic and Remaining Residential Secondary Customers from the Cost Allocation filed in this proceeding.
c) Please explain why the Weighted Metering Reading values (CWMR) are different by class as between the two Cost Allocations.
d) Please file revised versions of the two Cost Allocations with the input parameters reconciled as between the two.

RESPONSE:

a) When preparing the total Residential bills for the EB-2011-0144, it was assumed that all customers were billed on a bi-monthly basis. However, when the Quadlogic Meter customers were segregated out for this study, it was determined that they were billed monthly instead.

b) The EB-2011-0144 filing was developed on the basis of the existing residential class and no adjustment was made for secondary services to Quadlogic customers.

RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES ON SUITE METERING EVIDENCE

c) In the course of responding to this IR, an error was discovered where the EB-2011-0144 meter reading worksheet did not have the number of meters adjusted for the annual numbers of reads. This will be reflected in an update to EB-2011-0144.

d) The corrections will be included when THESL files the EB-2011-0144 updates. The current analysis in this filing is correct.

RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES ON SUITE METERING EVIDENCE

INTERROGATORY 6:

Reference(s): Exhibit L1, Tab 5, Schedule 1, page 5

a) What is the basis for THES' conclusion that very few of the buildings with Quadlogic installations are served by secondary assets?

RESPONSE:

a) As noted on page 14 of the Updated BDR study, THESL staff examined drawings of the connection configuration of the 48 buildings being served by Quadlogic customers. Based on the drawings, BDR concluded that approximately 8% of the Quadlogic metered suites were served by secondary assets.

RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES ON SUITE METERING EVIDENCE

INTERROGATORY 7:

Reference(s): **Exhibit L1, Tab 5, Schedule 1, page 8**
2012 Cost Allocation, Quadlogic Class, Sheet O1
EB-2011-0144, Exhibit L1, Tab 2, Schedule 1 – 2012 Cost Allocation, Sheet O1

Preamble: THES states that only the remaining Residential class has been adjusted with the introduction of the Quadlogic class.

a) Please provide a schedule that sets out: i) the status quo revenues for each customer class, ii) the allocation of costs to each of the customer classes and iii) the resulting revenue to cost ratios (for 2012) per EB-2011-0144.
b) Please provide a schedule that set out: i) the status quo revenues for each customer class, ii) the allocation of costs to each of the customer classes and iii) the resulting revenue to cost ratios (for 2012) per EB-2010-0142 – Supplementary Evidence.
c) Please confirm that both the revenues and costs attributed to the other customer classes change with the introduction of the Residential Quadlogic class.
d) Please explain why these changes in revenues and costs attributed to the classes occur.
e) Based on the foregoing, why does THES consider it appropriate for the offsetting increase in revenues to be allocated only to the Remaining Residential class?

RESPONSE:

a) Please see table provided at Appendix A to this Schedule.

RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES ON SUITE METERING EVIDENCE

b) Please see table provided at Appendix A to this Schedule.

c) Yes, both the revenues and costs attributed to the other customer classes change with the introduction of the Residential Quadlogic class.

d) The changes occur since the introduction of the Quadlogic classes changes the allocation of costs among all of the rate classes, based on the model logic.

e) THESL's evidence states that "For the purposes of designing an initial tariff" the reallocation of the over-recovery in the Quadlogic class has been allocated to the remaining residential class. In any event, the amount reallocated is small, and has a marginal impact on rates to the remaining residential class.

EB-2011-0144	Total	Residential	GS <50	GS - 50 to 999	GS - 1,000 to 4,999	Large Use >5MW	Street Light	Unmetered Scattered Load
Total Revenue at Status Quo Rates	$589,358,228	$245,969,803	$75,602,759	$172,928,257	$51,812,930	$26,195,424	$13,146,996	$3,702,060
Cost	$589,358,228	$275,646,971	$81,617,024	$147,698,628	$41,716,305	$21,819,921	$17,734,632	$3,124,747
REVENUE TO EXPENSES STATUS QUO%	100.0%	89.2%	92.6%	117.1%	124.2%	120.1%	74.1%	118.5%

EB-2010-0142	Total	Residential	Quadlogic	GS < 50	GS - 50 to 999	GS - 1,000 to 4,999	Large Use >5MW	Street Light	Unmetered Scattered Load
Total Revenue at Status Quo Rates	$589,358,228	$237,809,104	$8,232,379	$75,564,815	$172,895,753	$51,813,563	$26,195,444	$13,146,989	$3,700,181
Cost	$589,358,228	$266,966,279	$8,187,776	$82,022,379	$147,565,641	$41,795,205	$21,831,663	$17,835,002	$3,154,281
REVENUE TO EXPENSES STATUS QUO%	100.0%	89.1%	100.5%	92.1%	117.2%	124.0%	120.0%	73.7%	117.3%

RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES ON SUITE METERING EVIDENCE

INTERROGATORY 8:

Reference(s): Exhibit L1, Tab 5, Schedule 1, pages 8-9

a) Please provide: i) the supporting calculations that show the derivation of the proportions of revenue from fixed and variable charges based on current rates and ii) a schedule that shows the derivation of the rates set out in Table 4 based on these results.

b) Please provide: i) a schedule that shows the proportion of fixed and variable revenues from residential Quadlogic customers based on current rates and ii) a schedule that sets out the rates that would result if these proportions were applied to the costs attributed to Quadlogic customers based on a 100% Revenue to Cost ratio.

c) Please provide: i) a schedule that shows the proportion of fixed and variable revenues from the Remaining Residential customers based on current rates and ii) a schedule that sets out the rates that would result if these proportions were applied to the costs THES proposes to allocate to this class.

RESPONSE:

a) Please see table provided at Appendix A to this Schedule.

b) Please see table provided at Appendix B to this Schedule.

c) Please see responses above.

Calculation of Fixed/Variable Split				
			Revenue	
Residential Class	2012 Billing Units	2011 Approved Rates (adjusted for days of service)	$	%
- Customers	633,121	18.50	140,552,862	64.74%
- kWh	5,037,295,612	0.01520	76,566,893	35.26%

Quadlogic Suite Meter Class - Derivation of Rates			
Number of Customers			24,898
kWh			99,492,408
Proposed Revenue Reqirement	(a)	$	7,621,402
Misc Revenue	(b)	$	566,373
		$	8,187,776
Fix Ratios Split - (a) * 64.74%	64.74%	$	4,933,728
Fix Monthly Charge - Adj for Days of Service			**16.29**
Variable Split - (b) *35.26%	35.26%	$	2,687,674
Variable Rate			**0.02701**

Residential Rate Class - Derivation of Rates			
Number of Customers			608,223
kWh			4,937,803,204
Proposed Revenue Reqirement	(a)	$	230,439,452
Misc Revenue	(b)	$	9,036,714
		$	239,476,166
Fix Ratios Split - (a) * 64.74%	64.74%	$	149,175,391
Fix Monthly Charge - Adj for Days of Service			**20.16**
Variable Split - (b) *35.26%	35.26%	$	81,264,061
Variable Rate			**0.01646**

Calculation of Fixed/Variable Split				
			Revenue	
Quadlogic Class	2012 Billing Units	2011 Approved Rates (adjusted for days of service)	$	%
- Customers	24,898	18.50	5,527,356	78.52%
- kWh	99,492,408	0.01520	1,512,285	21.48%
Remaining Residential Class				
- Customers	608,223	18.50	135,025,506	64.27%
- kWh	4,937,803,204	0.01520	75,054,609	35.73%

Quadlogic Suite Meter Class - Derivation of Rates			
Number of Customers			24,898
kWh			99,492,408
Proposed Revenue Reqirement @ 100% Cost to Rev. Ratio	(a)	$	7,621,402
Misc Revenue	(b)	$	566,373
		$	8,187,776
Fix Ratios Split	78.52%	$	5,984,141
Fix Monthly Charge - Adj for Days of Service			**19.75**
Variable Split - (b)	21.48%	$	1,637,261
Variable Rate			**0.01646**

Remaining Residential Class - Derivation of Rates			
Number of Customers			608,223
kWh			4,937,803,204
Proposed Revenue Reqirement @ 8.97% Cost to Rev. Ratio	(a)	$	230,439,452
Misc Revenue	(b)	$	9,036,714
		$	239,476,166
Fix Ratios Split	64.27%	$	148,111,132
Fix Monthly Charge - Adj for Days of Service			**20.01**
Variable Split	35.73%	$	82,328,320
Variable Rate			**0.01667**

RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES ON SUITE METERING EVIDENCE

INTERROGATORY 9:

Reference(s): Exhibit L1, Tab 5, Schedule 1, pages 10-12

a) Please confirm that under THES' proposal for the period after the (smart) suite meter has been installed and up to when the "tenant" consents to individual billing, the consumption associated with the unit would be included in the bulk metered amount charged to the landlord at relevant GS rate but that an additional "meter only" charge would apply and be billed to the landlord. If this understanding is incorrect, please explain why.

b) Please explain why there are no OM&A costs attributed to the meter.

RESPONSE:

In accordance with the Board's Motion Decision on October 14, 2011, the Meter-Only Rate is no longer an issue in this proceeding.

RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES ON SUITE METERING EVIDENCE

INTERROGATORY 10:

Reference(s): 2012 Cost Allocation (Live), Quadlogic Class, Sheets I6.2, E1, E2 and E3

a) With respect to Sheet I6.2, please indicate the number of "buildings" associated with the 1,992 Quadlogic customers served at secondary voltages.

b) With respect to Sheets E1, E2 and E3 please confirm that for purposes of allocating the customer related portion (as established by the Minimum System Method) of Accounts 1830-4, 1830-5, 1835-4, 1835-5, 1840-4, 1840-5, 1845-4, 1845-5, 1850-4 and 1850-5, the "customer count" used was the number of residential Quadlogic customers.

c) If yes, please explain why the "number of residential customers" was used as opposed to the number of buildings (i.e. connections) using Primary and Secondary assets (as it is the number of buildings and not the number of customers that defines the number of connection points with the THES system).

d) Please provide a revised version the Cost Allocation where the number of "buildings" using Primary and Secondary assets is used for the Quadlogic customer class as the allocator for the customer-related costs associated with these accounts.

RESPONSE:

a) Please see response to Board Staff interrogatory 1 at Exhibit R4, Tab 1, Schedule 1.

b) For the xxxx-4 listed sub-accounts, the allocator in the model is CCP (primary customer base). For the xxxx-5 listed sub-accounts, the allocator is CCS (secondary

RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES ON SUITE METERING EVIDENCE

customer base), which THESL has adjusted to reflect the small number of Quadlogic customers being served by secondary.

c) THESL believes that the value calculated for the secondary customer base already reflects a reduced allocation of secondary costs to this class, and appropriately allocates the secondary costs to this class rather than using number of buildings.

d) Using number of buildings for the CCS allocator for the Quadlogic class increases the Revenue to Cost ratio for the class from 100.5 to 102.8.

on the Cost Allocation model logic, which allocated marketing costs to all customer classes based on the OM&A allocator.

COST ALLOCATION RESULTS

Based on the methodology and assumptions detailed above, the Revenue-Cost ratios as determined based on 2012 Test Year costs for the Suite Meter and remaining Residential class are detailed in the table below. Also included is a comparison with the Revenue-Cost ratios from the BDR Study for 2009 costs.

Table 2: Revenue/Cost Ratios

	2012 Base	BDR Study – 2009 Base	
Suite Meter Class	100.5%	94.9%	/c
Residential Class	89.1%	90.7%	/c
Combined Suite Meter and Residential Class	89.4%	90.7%	/c

Based on the 2012 customer, load and cost data applied to the Board's Cost Allocation model the result indicates a Revenue-to-Cost ratio of more than unity – 100.5% – for the Suite Meter class. /c This is higher than estimated in the Updated BDR Study, which found based on 2009 data the R/C ratio to be 94.9%.

COST ALLOCATION RESULTS – SENSITIVITY TO ALTERNATIVE ASSUMPTIONS

As noted above, a number of the input variables into the Cost Allocation Model could vary from the amounts estimated. In order to assess the sensitivity of the R/C ratios for the Suite Meter class the model was run with the alternate values.

The results, which are summarized in the table below, show the R/C ratios for the Suite Meter class can vary within a range of about 5-6% depending on the value of the input

variables.

Table 3: Sensitivity of R/C Ratios to Alternative Assumptions

Alternative Assumption	Impact on R/C Ratio for Suite Meter class	Resulting Suite Meter R/C range	
Average Monthly load - +/- 1 Std Deviation based on sample	+/- 4-5%	104.4-95.1%	/c
Estimated per Meter Cost +/- $100	+/- 6%	106.5-94.5%	/c
Directly Allocated Meter Costs	- 5.6%	95.0%	/c
Percentage of Secondary allocated +/- 8%	+/- 3.4%	103.9-97.1%	/c

SUITE METER RATES

The Board's Partial Decision requires THESL to propose a tariff for the new customer class.

The two key steps in developing a tariff for the class are: 1) determining the proportion of the overall revenue requirement to be collected from the class, or in other words, the Revenue-to-Cost ratio; and 2) the design of the rates to recover the revenue so determined.

With respect to the first step, the Revenue-to-Cost ratio, the Board stated in its Partial Decision:

> *"The Board finds that due to the existence of a competitive market for the provision of unit sub-metering it is appropriate to ensure that procurement choices, as between licensed distributors (suite metering) and licensed unit sub-meter providers (unit sub-metering) are made on a comparable economic basis both within the competitive unit sub-metering marketplace and between this competitive market place and the monopoly service."*

THESL has interpreted this to imply that the Revenue-to-Cost ratio for the new class is to be set at unity – where the revenues collected from the class are set equal to the costs incurred to serve the class, to ensure that suite meter customers are neither receiving nor paying any subsidies from/to consumers in other rate classes. As indicated above, the Cost Allocation model indicates that for 2012, the R/C ratio, before any reallocations, would be 100.5% for the Suite Meter class. For the purposes of designing an initial tariff, /c
THESL has reduced the revenue responsibility – in the amount of $44,600 – to the class /c
to make the Revenue-to-Cost ratio equal to 1. An offsetting increase in the Revenue-to-Cost ratio for the Remaining Residential Class is a result. Only the Remaining Residential class has been adjusted since the Suite Meter class was previously part of the (existing) Residential class, and therefore it is appropriate that any impacts due to the split of this class would be effected only on this class and not on other rate classes.

With respect to rate design, THESL proposes the same design of rates for this new class that is applied for the existing Residential class. The proposed tariff therefore includes two components – a fixed charge (per customer per 30 days, consistent with fixed charges in all other THESL rate classes), and a variable charge based on kWh. In developing the level of these charges, THESL has maintained the same proportion of revenue recovered from the fixed and variable charges for the new classes (the Suite Meter class as well as the new Remaining Residential class) as applies to the existing Residential class.

The initial rates resulting from the allocation and rate design described above (and an estimated monthly bill based on average consumption) are shown below (in comparison with the Remaining Residential rates at average residential consumption level).

Table 4: Suite Meter Rates

	Suite Meter Class (334 kWh/month)	Remaining Residential Class (677 kWh/month)	
Fixed ($/customer/30 days)	16.29	20.16	/c
Variable ($/kWh)	0.02701	0.01646	/c
Estimated Monthly Bill[1]	$53.06	$88.68	/c

Note 1: Estimated monthly bill based on Distribution, Transmission and Commodity costs only. Taxes and rate riders not included. Transmission rates based on EB-2011-0114 filed rates. Commodity costs based on tiered RPP rates of $0.068/kWh for first 600kWh, and $0.079/kWh for usage above 600kWh.

TRANSITIONAL METER-ONLY RATE FOR CONVERTING BUILDINGS

Under section 5.1.9 of the Distribution System Code, THESL has the obligation to be the supplier of last resort in a market which is otherwise deemed by the Board to be contestable. Section 5.1.9 provides: "When requested to do so by a master consumer, a distributor shall install unit smart meters that meet the specifications prescribed by Ontario Regulation 389/10". This means that THESL must provide service in situations where other sub-meterers decline to do so.

In these and in any other circumstances in which THESL provides suite metering to a residential building which was initially bulk metered, THESL also has the obligation to install the suite metering system in an efficient, cost-effective manner. This requires THESL to install the entire suite metering system in the building at one time, rather than on a piecemeal basis as each individual unit converts to individual direct service.

In the case of existing condominiums which are converting to unit metering, consent to establish individual accounts is conveyed by the condominium corporation rather than individual unit occupants. No significant period of time would exist during which existing condominium units in a converting building would have meters installed which would not be used for billing purposes.