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December 13, 2011

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

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

Dear Ms. Walli:

**Re: Toronto Hydro-Electric System Limited's ("THESL")
2011 Electricity Distribution Rate Application – Responses to Oral Hearing
Undertakings
OEB File No. EB-2010-0142**

Enclosed are THESL's responses to Undertakings from the December 7, 2011 Oral Hearing.

Also enclosed is the corrected response to Board Staff Interrogatory 10 (Exhibit R4, Tab 1, Schedule 10) previously filed on November 11, 2011.

Please direct any questions or comments to my attention.

Yours truly,

[original signed by]

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

1 **INTERROGATORY 10:**

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

3

4 It is stated when discussing meter costs that:

5 “A sensitivity analysis was also conducted by directly allocating the estimated
6 Quadlogic meter costs to the Suite Meter class, rather than using the model’s
7 meter cost weighting factors.”

8

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

14

15 **RESPONSE:**

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

20

21 Under the direct allocation methodology, while the Quadlogic meter costs (as well as
22 associated depreciation and meter expenses) are allocated directly to the Quadlogic class,
23 the remaining meter costs are allocated to all classes – including the Quadlogic class –
24 using the weighted meter logic. This shortcoming could be overcome by assigning zero

/C

/C

**RESPONSES TO ONTARIO ENERGY BOARD STAFF
INTERROGATORIES ON SUITE METERING EVIDENCE**

1 costs to the Quadlogic class in Tab I7.1 (which is the part of the model that determines /C
2 the class allocations for the meter capital costs account). /C
3
4 The direct allocation of the estimated Quadlogic meter costs to the Quadlogic class in the
5 sensitivity analysis was performed to transparently demonstrate the results using a second
6 method of allocation (and did not adjust for the shortcoming noted above). It is THESL's
7 view that both methods likely provide a reasonable estimate for the allocation of meter
8 costs, and the relatively narrow range of the result (especially considering the relatively
9 small size of the Quadlogic class) demonstrates this.

RESPONSES TO ORAL HEARING UNDERTAKINGS ON SUITE METERING EVIDENCE

UNDERTAKING NO. JH3.1:

Reference(s): **none provided**

To redo sensitivity analysis of Revenue-to-Cost ratio with allocated other metering costs backed out.

RESPONSE:

THESL has recalculated the Revenue-to-Cost ratio, directly allocating meter capital costs, as well as related depreciation and meter expenses, to the Quadlogic class and ensuring no other customer meter capital costs are allocated to the class. The resulting Revenue-to-Cost ratio for the Quadlogic class is 112.2%, which is higher than the 100.5% calculated using the model meter capital allocators.

To determine the capital to directly allocate, THESL estimated the NBV and accumulated depreciation of the Quadlogic meters in 2012 based on growth in the Quadlogic customer base between 2009 (the 9,149 Quadlogic customers identified in the BDR study) and the 2012 forecast of 24,898 Quadlogic customers. The capital (\$12.3M), accumulated depreciation (\$1.6M) and depreciation expense (\$820k) amounts were then directly allocated to the Quadlogic class. Additionally, an amount for meter expenses (Account 5065) was directly allocated. This amount of \$405k was based on the meter expenses which are allocated to the Quadlogic class using the model logic (i.e., when meter capital is allocated using the model logic). Finally, in order that none of the remaining customer meter capital costs are allocated to the Quadlogic class, the number of meters in the Meter Capital sheet (I7.1) is set to zero for the Quadlogic class. THESL has provided a live version of the Cost Allocation model reflecting these input assumptions with this undertaking response (filename: T3_N_TBI_S01_CAS-LIVEMODEL_V01.xls).

RESPONSES TO ORAL HEARING UNDERTAKINGS ON SUITE METERING EVIDENCE

1 The primary reason for the increase in the Revenue-to-Cost ratio is because the directly
2 allocated meter capital costs to the Quadlogic class are lower than meter capital costs
3 allocated using the model's meter capital allocator logic.

4

5 The following table, taken from Tab O1 from the Cost Allocation Model, summarizes the
6 allocated costs under the two different methodologies of allocating the meter capital
7 costs.

RESPONSES TO ORAL HEARING UNDERTAKINGS ON SUITE METERING EVIDENCE

	Using Meter Allocation with Cost Allocation Model	Using Direct Allocation of Meter Capital, associated depreciation, and meter expenses
Distribution Revenue at Existing Rates	\$7,039,641	\$7,039,641
Miscellaneous Revenue (mi)	\$566,373	\$553,236
Total Revenue at Existing Rates	\$7,606,014	\$7,592,877
Distribution Revenue at Status Quo Rates	\$7,666,006	\$7,666,006
Miscellaneous Revenue (mi)	\$566,373	\$553,236
Total Revenue at Status Quo Rates	\$8,232,379	\$8,219,242
Expenses		
Distribution Costs (di)	\$578,528	\$578,528
Customer Related Costs (cu)	\$2,566,492	\$2,161,433
General and Administration (ad)	\$1,510,940	\$1,276,116
Depreciation and Amortization (dep)	\$1,788,484	\$706,958
PILs (INPUT)	\$14,823	\$7,896
Interest	\$752,491	\$400,879
Total Expenses	\$7,211,758	\$5,131,811
Direct Allocation	\$0	\$1,672,718
Allocated Net Income (NI)	\$976,018	\$519,960
Revenue Requirement (includes NI)	\$8,187,776	\$7,324,488
Revenue to Expenses Status Quo%	100.5%	112.2%

RESPONSES TO ORAL HEARING UNDERTAKINGS ON SUITE METERING EVIDENCE

1 **UNDERTAKING NO. JH3.2:**

2 **Reference(s):** **none provided**

3

4 To provide, in the most current cost allocation applied for, the total meter reading costs
5 assigned to each class, the total meters for each class and the resulting average meter
6 reading costs per class from Sheet I7.2 of the Cost Allocation model, if not already
7 provided in the evidence.

8

9 **RESPONSE:**

10 Please see the following table.

		Residential	Quadlogic	Quadlogic/ Res Ratio	Source
A	Allocated Meter Reading Costs	\$1,771,278	\$521,764		CAS Model, Tab O4, Account 5310
B	Number of Meters	612,458	25,033		CAS Model, Tab I7.1, Total Number of Meters
C	Annual Cost per Meter	\$2.89	\$20.84	7.21	A / B
D	Billing Period Adjusted number of meters	3,674,748	300,396		CAS Model, Tab I7.2, Units
E	Annual cost per meter per bill	\$0.48	\$1.74	3.60	A / D

11 The difference in the two ratios provided in the table above is attributed to the monthly
12 and bi-monthly billing cycles of the Quadlogic and Residential class respectively.

RESPONSES TO ORAL HEARING UNDERTAKINGS ON SUITE METERING EVIDENCE

1 **UNDERTAKING NO. JH3.3:**

2 **Reference(s):** **none provided**

3

4 To provide estimate of drop in load demand and revenue after Quadlogic installation

5

6 **RESPONSE:**

7 THESL estimates that on a co-incident basis, the reduction in monthly load for a 220

8 suite building would be approximately 140kVA if the suites were removed from the GS

9 50-999 kW customer class. At current (2011) rates for the GS 50-999 kW class, this

10 would result in a reduction in revenue from that class of approximately \$780 per month.

RESPONSES TO ORAL HEARING UNDERTAKINGS ON SUITE METERING EVIDENCE

1 **UNDERTAKING NO. JH3.4:**

2 **Reference(s):** **none provided**

3

4 To provide total number of buildings that could be suite-metered using Quadlogic in City
5 of Toronto.

6

7 **RESPONSE:**

8 As of 2009*, Toronto Hydro had identified the following multi-unit residential facilities
9 with a service greater than 50kW:

10

11 Apartments = 1010 buildings, 152,949 units

12 Condominiums = 842 buildings, 114,739 units

13 Total Number of Units = 267,688 units

14

15 Toronto Hydro estimates that 41,000** additional units will have been added in Toronto
16 between 2009 to mid-year 2012, which results in a total of approximately 309,000 units
17 that could potentially be sub-metered. Toronto Hydro forecasts to have suite-metered
18 about 8% of the total (24,898 suites).

*Toronto Hydro launched the suite metering business in 2009

**CMHC Housing Now, January 2011 and November 2011

RESPONSES TO ORAL HEARING UNDERTAKINGS ON SUITE METERING EVIDENCE

1 **UNDERTAKING NO. JH3.5:**

2 **Reference(s):** **none provided**

3

4 To provide description of services in current and previous RFP, and to highlight
5 differences between the two.

6

7 **RESPONSE:**

8 The following is a list of current practices with Toronto Hydro's current subcontractor for
9 the installation of unit smart meter systems, Trilliant Energy Services Inc. ("Trilliant")
10 compared to the requirements in the 2011 RFP for the Supply, Installation and
11 Maintenance of Unit Smart Meter Systems.

ITEM	CURRENT PRACTICE	2011 RFP
Term of Agreement	Contract with Trilliant dated January 1, 2009 was for a term of three (3) years and has been extended to March 31, 2012.	The 2011 RFP states the Term will be for three (3) years with the option to extend the Contract for up to two (2) additional one (1) year renewal terms.
Sales/Marketing	Trilliant secures business on behalf of Toronto Hydro.	No change.
	Toronto Hydro developed and provided the majority of all promotional material.	Toronto Hydro or successful Respondent may develop and provide the promotional material (all as approved by Toronto Hydro).

RESPONSES TO ORAL HEARING UNDERTAKINGS ON SUITE METERING EVIDENCE

ITEM	CURRENT PRACTICE	2011 RFP
Meter Data Management Services	Trilliant provides Meter Data Management Services required for the collection of consumption data from the meters.	Meter Data Management services are no longer required. Toronto Hydro will be responsible for collection of meter data.
Installation - Retrofits	Trilliant is responsible for installation of Unit Smart Meter System.	No change.
Installation - New	Trilliant responsible to contract base building electrician for installation in new multi-unit complexes and paid by Toronto Hydro.	Same, but cost payable by successful Respondent.
Supply of Meters	Trilliant is responsible for supplying QuadLogic brand Unit Smart Meter Systems and socket meters as required.	The successful Respondent will continue to be responsible for supplying Quadlogic brand Unit Smart Meter Systems and may recommend alternate brand of Unit Smart Meters for both new and retrofit applications.
Maintenance & S-E-04 Inspections	Trilliant currently provides on-going maintenance services. S-E-04 inspections are performed by Trilliant and other third party under separate contract.	The successful Respondent will be required to perform all S-E-04 inspections and ongoing maintenance services.

RESPONSES TO ORAL HEARING UNDERTAKINGS ON SUITE METERING EVIDENCE

ITEM	CURRENT PRACTICE	2011 RFP
Invoicing	<p>Trilliant issues one invoice for the following:</p> <ul style="list-style-type: none"> (i) meter supply, installation, maintenance, marketing/sales support, testing, sealing project management and commissioning; (ii) Data collection services; and (iii) field support services and investigations 	<p>The successful Respondent will be required to issue separate invoices for each of the following:</p> <ul style="list-style-type: none"> (i) marketing and sales component of Unit Smart Meter services; (ii) supply and verification of Unit Smart Meters; (iii) installation and commissioning of Unit Smart Meters; (iv) S-E-04 inspections; and (v) maintenance for field support services and investigations.

RESPONSES TO ORAL HEARING UNDERTAKINGS ON SUITE METERING EVIDENCE

1 **UNDERTAKING NO. JH3.6:**

2 **Reference(s):** **none provided**

3

4 To reflect in the residential model how the units are fed and provide answer as to whether
5 residential class is likely to have a differential between primary and secondary costs, and
6 relate back to what BDR did in their study.

7

8 **RESPONSE:**

9 THESL understands this undertaking as described by Mr. Seal on page 149, lines 22-28
10 of the transcript, reproduced below.

11

12 *"I think what you're asking me is if we recognize that there are suite meter customers,*
13 *non-Quadlogic suite meter customers, in the residential class that we have here -- and we*
14 *recognize, as we've seen from the BDR study, that not all of them get secondary --*
15 *whether there shouldn't be an adjustment to this particular demand for the residential*
16 *class to recognize that."*

17

18 THESL agrees that to the extent there are non-Quadlogic suite meter customers as part of
19 the Residential rate class, and that a portion of these customers would not be served by
20 secondary assets, that the allocators for secondary assets to the Residential class should
21 be adjusted.

22

23 BDR did not make any such adjustment in its filed studies.