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March 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 Street, 27<sup>th</sup> floor  
Toronto, ON M4P 1E4

Dear Ms. Walli:

**Re: Toronto Hydro-Electric System Limited's ("THESL")  
2011 Electricity Distribution Rate Application – Interrogatory Responses on  
Cost of Service Further Study Material  
OEB File No. EB-2010-0142**

Pursuant to Procedural Order No, 9 and in the matter the Cost of Service Further Study Material (Exhibit L1, Tab 4, Schedule 1), THESL received Interrogatories solely from the Smart Sub-Metering Working Group.

Enclosed are the responses to these Interrogatories.

Please contact me if you have any questions.

Yours truly,

*[Colleen Richmond for]*

Glen A. Winn  
Manager  
Regulatory Applications & Compliance

/attach.

:GAW/CAR/acc

## INTERROGATORIES OF ONTARIO SMART SUB-METERING WORKING GROUP

1 **INTERROGATORY 1:**

2 **Reference(s):** **Exhibit L1, Tab 4, Schedule 1: *Cost of Service Study for***  
3 ***Individually Metered Suites in Multi-Unit Residential Buildings***  
4 ***– Alternate Scenario Ordered by the Ontario Energy Board,***  
5 **BDR, February 18, 2011 (the “Study”)**

6

7 Of the 48 buildings identified in the further Study as containing units with Quadlogic  
8 suite meters in 2009, what proportion were retrofit buildings (i.e., conversions)?

9

10 **RESPONSE:**

11 Fifteen of the 48 buildings (31 percent) were retrofits.

## INTERROGATORIES OF ONTARIO SMART SUB-METERING WORKING GROUP

1 **INTERROGATORY 2:**

2 **Reference(s):** **Exhibit L1, Tab 4, Schedule 1: *Cost of Service Study for***  
3 ***Individually Metered Suites in Multi-Unit Residential Buildings***  
4 ***– Alternate Scenario Ordered by the Ontario Energy Board,***  
5 **BDR, February 18, 2011 (the “Study”)**

6

7 What proportion of the retrofit buildings with Quadlogic suite meters are served through  
8 secondary infrastructure?

9

10 **RESPONSE:**

11 Two of the retrofit buildings (13 percent) are served through secondary infrastructure.

## INTERROGATORIES OF ONTARIO SMART SUB-METERING WORKING GROUP

1 **INTERROGATORY 3:**

2 **Reference(s):** **Exhibit L1, Tab 4, Schedule 1: *Cost of Service Study for***  
3 ***Individually Metered Suites in Multi-Unit Residential Buildings***  
4 ***– Alternate Scenario Ordered by the Ontario Energy Board,***  
5 **BDR, February 18, 2011 (the “Study”)**

6  
7 Of the 9,149 customers identified as being Quadlogic customers for the purposes of the  
8 further Study, what number of these customers are retrofits (i.e., conversions from older  
9 metering systems as opposed to new buildings)?

10

11 **RESPONSE:**

12 The retrofit buildings include 2,480 customers.

## **INTERROGATORIES OF ONTARIO SMART SUB-METERING WORKING GROUP**

1 **INTERROGATORY 4:**

2 **Reference(s):** **Exhibit L1, Tab 4, Schedule 1: *Cost of Service Study for***  
3 ***Individually Metered Suites in Multi-Unit Residential Buildings***  
4 ***– Alternate Scenario Ordered by the Ontario Energy Board,***  
5 ***BDR, February 18, 2011 (the “Study”)***

6

7 Of the 20 buildings identified for which there is “relatively complete data”, what number  
8 of these 20 buildings were retrofits (i.e., conversions)?

9

10 **RESPONSE:**

11 Seven of the 20 buildings were retrofits.

## INTERROGATORIES OF ONTARIO SMART SUB-METERING WORKING GROUP

1 **INTERROGATORY 5:**

2 **Reference(s):** **Exhibit L1, Tab 4, Schedule 1: *Cost of Service Study for***  
3 ***Individually Metered Suites in Multi-Unit Residential Buildings***  
4 ***– Alternate Scenario Ordered by the Ontario Energy Board,***  
5 **BDR, February 18, 2011 (the “Study”)**  
6

7 Subsection 4.6.2 of the further Study indicates that a figure of \$440 was applied as the  
8 meter capital allocator to each of 9,149 members of the sub-group. Please advise of the  
9 actual costs to install Quadlogic meters in each of the buildings which were the subject of  
10 conversions which are included in the 9,149 customer sub-group. Please confirm that the  
11 cost to convert existing buildings is greater than the cost to install Quadlogic meters in  
12 new construction. Please provide on a per unit basis the average cost for retrofit  
13 installations.  
14

15 **RESPONSE:**

16 The actual cost to install Quadlogic meters at converted buildings that are part of the  
17 further study was \$1,184,384, or \$473 per meter point.  
18

19 Material costs for meters are the same for both new construction and retrofit installations.  
20 Labour costs are typically higher for Quadlogic retrofits than for new construction.

## INTERROGATORIES OF ONTARIO SMART SUB-METERING WORKING GROUP

1 **INTERROGATORY 6:**

2 **Reference(s):** **Exhibit L1, Tab 4, Schedule 1: *Cost of Service Study for***  
3 ***Individually Metered Suites in Multi-Unit Residential Buildings***  
4 ***– Alternate Scenario Ordered by the Ontario Energy Board,***  
5 ***BDR, February 18, 2011 (the “Study”)***  
6

7 Please identify each of the specific accounts set out in Table 4.4 where BDR has done the  
8 following:

- 9 a) decreased the allocation to the Quadlogic customers relative to either or both of the  
10 residential suite metered sub-group and the residential non-suite metered customers;  
11 b) increased the allocation to the Quadlogic customers relative to either or both of the  
12 residential suite metered sub-group and the residential non-suite metered customers;  
13 c) Please confirm that all remaining accounts not identified in (a) and (b) above have  
14 been allocated solely on the basis of the allocator normally used in the OEB’s cost  
15 allocation model (e.g., demand, customer count, etc.);  
16 d) For each of the accounts identified in (a) and (b) above, please set out specifically the  
17 value of the change (in dollars and percentages) and the justifications for the change.  
18

19 **RESPONSE:**

20 All the accounts shown in Table 4.4 have been allocated solely on the basis of the  
21 allocator normally used in OEB’s cost allocation model e.g., demand, customer count,  
22 weighted meter capital and weighted meter reading, etc. The determination of the values  
23 of these allocators as they apply to the Quadlogic customers is described in BDR’s  
24 February 18, 2011 report.

## **INTERROGATORIES OF ONTARIO SMART SUB-METERING WORKING GROUP**

1 In addition to these allocations, there was a \$90,000 direct assignment to the Quadlogic  
2 customers, representing the full amount of suite metering marketing expenses incurred in  
3 2009. This amount was taken from account 5615 General Administrative Salaries and  
4 Expenses and is not listed in Table 4.4, which was an extraction of the significant  
5 accounts from the Trial Balance. This amount represents an increased allocation as  
6 compared with both the residential suite metered sub-group and the residential non-suite  
7 metered customers. \$90,000 represents 3.3 percent of the total fully allocated cost of  
8 service of the Quadlogic customers. The appropriateness of this treatment was  
9 considered in light of the fact that THESL's web site includes information potentially of  
10 interest to any individually metered suite, and to the boards of condominium buildings  
11 that are not currently individually metered (i.e., now in the General Service class).  
12 However, BDR concluded that direct assignment of the full amount of 2009 costs  
13 represented a conservative scenario in view of the objective of the study, which was to  
14 enable the Board to consider whether the Quadlogic customers receive an undue subsidy  
15 from other residential customers.



## **INTERROGATORIES OF ONTARIO SMART SUB-METERING WORKING GROUP**

1 **INTERROGATORY 7:**

2 **Reference(s):** **Exhibit L1, Tab 4, Schedule 1: *Cost of Service Study for***  
3 ***Individually Metered Suites in Multi-Unit Residential Buildings***  
4 ***– Alternate Scenario Ordered by the Ontario Energy Board,***  
5 ***BDR, February 18, 2011 (the “Study”)***  
6

7 It appears that THESL has for purposes of the further Study removed from the Quadlogic  
8 customer sub-group some of the secondary infrastructure costs that would, in accordance  
9 with standard cost allocation methodology, be allocated to the sub-group. The SSMWG  
10 does not accept that the removal of some of these costs is appropriate and therefore  
11 requests THESL provide versions of Tables 4.4 and 5.1 that appear in the further Study  
12 showing the costs if the standard allocators that are used to allocate secondary costs (e.g.,  
13 kW) to all classes are also used to allocate costs to each of the three residential sub-  
14 classes set out in those tables. The SSMWG does not require a further study, just the  
15 updated tables. Directly allocable costs to acquire, install, maintain and service and read  
16 (and any other directly allocable activities) the Quadlogic meters which serve only the  
17 Quadlogic sub-group would still be directly allocated in this scenario.  
18

19 **RESPONSE:**

20 THESL and BDR strongly dispute the SSMWG’s contention that the Further Study did  
21 not treat secondary infrastructure costs in accordance with the “standard cost allocation  
22 methodology”.

23

24 The methodology provides for the costs of secondary infrastructure to first be categorized  
25 into a demand-related component and a customer-related component. The categorization

## **INTERROGATORIES OF ONTARIO SMART SUB-METERING WORKING GROUP**

1 factors are standardized and based on density. THESL, as an LDC with a customer  
2 density greater than 60 customers per km of line, has conformed to the methodology by  
3 using a factor of 35 percent as the customer-related component. Therefore, 35 percent of  
4 the secondary infrastructure costs are allocated based on number of customers, and 65  
5 percent are allocated based on demand.

6

7 When the model was developed by the OEB it was well understood that in certain  
8 classes, not all customers are served by secondary infrastructure. The model therefore  
9 provides a row on which the secondary customer base in the class is input for use as an  
10 allocator for the customer-related costs of secondaries (Table I6 Customer Data), and  
11 rows on which the secondary 1NCP, 4 NCP and 12 NCP are input to be used in allocating  
12 the demand-related costs of secondary assets (Table I8 Demand Data). For a class in  
13 which all customers are served by secondary infrastructure, the secondary customer base  
14 and secondary NCP statistics would be the same as the primary number of customers and  
15 demand of the class; however, these lines are appropriately used for classes such as  
16 GS>50 and Large Use customers, to reflect the fact that the secondary infrastructure does  
17 not serve all customers in the class. The methodology programmed into the model thus  
18 provides for, and has always provided for, recognition of this important difference in the  
19 way classes of customers are served.

20

21 In preparing the Further Study, BDR made use of these rows provided in the model for  
22 this purpose, exactly as they are used for each of the other customer classes in which not  
23 all customers are served by secondary infrastructure.

## **INTERROGATORIES OF ONTARIO SMART SUB-METERING WORKING GROUP**

1 In this particular study, THESL was able, by examining the relevant drawings, to identify  
2 which of the 9,149 customers are served by the secondary infrastructure. As a result, it  
3 was determined that 92 percent of the customers are fed directly from primary circuits  
4 and only 8 percent are fed from secondary. These factors were reflected in the figures in  
5 Tables I6 and I8 of the model as described.

6

7 THESL also notes that the capital and meter reading costs of the Quadlogic meters were  
8 allocated to the Quadlogic customers by the same model mechanisms that allocate meter  
9 capital and meter reading costs to all customer classes. The capital cost of the Quadlogic  
10 meters was input to Table I7.1, resulting in the appropriate weighting of this class's  
11 allocation of total meter capital. Table I7.2 was designed to take into account the reading  
12 cost associated with different types of meters through a weighting factor. A weighting  
13 factor provided by THESL for this purpose was input in Table I7.2, allowing the  
14 formulas in the model to compute a cost allocation exactly as is done for all metered  
15 customer classes. Since certain additional allocations, such as for administrative and  
16 general costs, are computed from the aggregate of allocations including meter capital and  
17 meter reading, BDR purposely refrained from any changes that would override the  
18 methodology inherent in the model and prevent such further calculations from being done  
19 as intended in the model design.

20

21 Given that recognition of the difference in proportionate usage of secondary  
22 infrastructure is part of the standard methodology, and is used for other customer classes,  
23 THESL submits that the further study as already provided is fully consistent with the  
24 standard methodology, and that therefore no additional computations or tables are  
25 required. In THESL's and BDR's opinion, failing to give recognition to the reduction in

## **INTERROGATORIES OF ONTARIO SMART SUB-METERING WORKING GROUP**

- 1 secondary infrastructure costs to the Quadlogic customers would be contrary to the
- 2 methodology approved by the Board and contrary to principles of cost allocation.