ONTARIO ENERGY BOARD

IN THE MATTER OF the *Ontario Energy Board Act, 1998,* Schedule B;

AND IN THE MATTER OF an application by Toronto Hydro-Electric System Limited for an order approving just and reasonable rates and other charges for electricity distribution

ARGUMENT OF THE SMART SUB-METERING WORKING GROUP ("SSMWG")

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TABLE OF CONTENTS

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EXECUTIVE SUMMARY

1. The purpose of Phase II of this proceeding, as confirmed by the Panel at the oral hearing on December 7, 2011, is to establish the protocols for the new Toronto Hydro Electric-System Limited ("THESL") Competitive Market Unit Sub-Metering Class (hereinafter referred to as the "Quadlogic Class"). The Ontario Energy Board ("OEB" or the "Board") stated in its Partial Decision and Order dated July 7, 2011 that it views the establishment of this new rate class as the most effective and transparent manner to address issues which arise by reason of THESL's involvement in the competitive unit sub-metering market.[1]

2. The Smart Sub-metering Working Group ("SSMWG") greatly appreciates the Board's efforts in this regard. As the Argument of THESL notes, the SSMWG has expressed concern about the involvement of rate-regulated utilities in competitive market unit sub-metering activities in prior proceedings. This is particularly true in respect of THESL, whose actions prompted a complaint and a compliance proceeding (EB-2009-0308) which resulted in an Order against it, and the SSMWG's involvement in several of THESL's rates cases. Given THESL's past actions and its participation throughout both phases of this proceeding, as described in greater detail below, there is every reason to believe that the competitive unit sub-metering market requires protection in the form of rules and protocols that level the playing field so that informed decisions can be made by potential customers of THESL and members of the SSMWG.

THESL'S QUADLOGIC SUITE METERING PROGRAM

3. There are certain factual issues which are not in dispute. For 2012, THESL's average cost for Quadlogic meter acquisition and installation is $550 per meter.[2] By comparison, THESL's evidence is that its standard smart meters have an estimated average cost of

[1] Partial Decision and Order, July 27, 2011, p. 37
[2] Supplementary Evidence, filed September 30, 2011, Corrected November 4, 2011, Ex. L1/T5/S1, p. 4

$158.75, in 2011.[3] For an apples-to-apples comparison, the average cost included in THESL's cost allocation study filed as part of its 2012-2014 Application (EB-2011-0144) is increased .25 cents to $159, for 2012. The Quadlogic Meter acquisition and installation costs are therefore about 3.5 times greater than standard smart meters.

4. Meter reading costs are also substantially higher. BDR North America Inc. ("BDR"), the third party cost allocation expert retained by THESL, determined in its February 18, 2011 Cost of Service Study (the "BDR February 18, 2011 Study" or the "BDR Second Study")[4] that the costs to read the Quadlogic meters are approximately 7 times greater than standard meters. Thus BDR used a weighting factor of 7.[5]

5. In its Supplementary Evidence and at the technical conference, THESL advised that the meter reading function will be taken in-house and that meter reading costs would fall but would remain 3.6 times that of standard meters. It was subsequently determined that the budget to take the meter reading function in-house had been increased by $100,000 and that the meter reading would not commence in-house until the second quarter of 2012. THESL has not updated its cost allocation study to reflect the additional $100,000 in capital costs, but it did calculate the weighting factor, assuming current costs are continued until the second quarter of 2012, at 4.3. In other words, without adjusting for the additional $100,000 in capital costs (which the SSMWG submits that THESL should be ordered to do), the weighting factor for 2012 is 4.3. Obviously, it will be somewhat higher when the $100,000 is added to the study.

6. In the BDR Second Study, BDR directly allocated $90,000 in marketing expenses to the Quadlogic Class because the activities were clearly directed solely at this class. THESL has not specifically "budgeted" any monies for Quadlogic Class promotional activities, but it is clear from its evidence at the oral hearing that much of this marketing will continue. Despite this, THESL removed the marketing costs from its cost allocation modelling actions. The SSMWG submits that THESL should be required to calculate the

[3] Ex. L1/T2/S7, p. 10
[4] BDR Cost of Service Study for Individually Metered Suites in Multi-unit Residential Buildings, Alternative Scenario, February 18, 2011, Ex. L1/T4/S1
[5] BDR Second Study, Ex. L1/T4/S1, p. 19

fully allocated costs of its promotional and marketing support efforts for its Quadlogic Class and that these amounts should be directly allocated to the new Quadlogic Class.

7. Leaving aside the inappropriate proposal of THESL to manually adjust the costs allocated to the Quadlogic Class to remove secondary circuit costs and, as a result, transfer them over to the remaining residential class, one thing is clear. The costs to acquire, install, read and promote Quadlogic meters is materially greater than the costs to perform similar activities in respect of THESL's standard smart meters. It intuitively follows before one even turns to the Board's cost allocation methodology that the rates which Quadlogic customers should pay must necessarily be higher than that of other residential customers. These additional costs are incremental to all other appropriately allocated distribution costs, including depreciation on plant, that any new residential customer would be allocated. The significant distinguishing feature between the new Quadlogic Class and the remaining residential class is the significantly higher costs associated with the Quadlogic meters.

SSMWG'S CONCLUSIONS AND RECOMMENDATIONS

8. For the reasons stated in greater detail below, the SSMWG submits that THESL should be required to engage an independent third party cost allocation firm to complete a further cost allocation study for 2012 using the Board's cost allocation methodology, subject to the following protocols:

   (a) that all Quadlogic meter capital costs be directly allocated to the Quadlogic Class and that this exercise is undertaken in a manner which continues to appropriately allocate other account costs to the Quadlogic Class, as are appropriate. An appropriate way to directly allocate such costs to the Quadlogic Class is to create two input sheets for I 7.1:

      (i) a value of "0" could be used on the first Input Sheet to directly allocate the Quadlogic meter costs to the Quadlogic Class; and

      (ii) a value other than "0" should be used by the composite allocators used in the allocation model. The goal is to ensure that appropriate other costs remain properly allocated to the Quadlogic Class.

(b) that the appropriate weighting factor for meter reading costs for the Quadlogic Class is recalculated using the most current budget of THESL for the costs to take the meter reading function in-house (i.e., to include the additional $100,000 increased capital costs which recently came to light). The current weighting factor, as calculated by THESL, without including the increased $100,000 in capital expenditures, is 4.3. It is the expectation of this exercise that this figure will increase.

(c) that the actual costs calculated on a fully allocated basis that THESL will incur for the purposes of promoting and marketing its Quadlogic Suite Meter program (either internally or to a third party vendor) be determined and directly allocated to the Quadlogic Class.

(d) that there should not be any adjustment for secondary costs that would otherwise be allocated to the Quadlogic Class but instead rely upon the logic of the model, such that the allocation of secondary costs to the Quadlogic Class would be allocated using the same allocators as secondary costs are allocated to the remaining residential rate class.

(e) that the resulting revenue-to-cost ratio be determined and a fixed monthly Competitive Unit Sub-metering rate adder be calculated to recover the deficiency monthly from the Quadlogic Class.

(f) to the extent that the independent consultant believes that there is any other cost which should be allocated to the Quadlogic Class or any cost which, as a result of the direct allocations stated above, should not be allocated to the Quadlogic Class, the consultant should be required to specifically note the accounts, the amounts and the detailed reasons and justifications for the additions or deletions.

Quadlogic Meter Costs Should be Directly Allocated

9. During the oral hearing of December 7, 2011, THESL witness, Mr. Darryl Seal, acknowledged, at page 19 of the transcript, that Quadlogic meters only serve Quadlogic Class customers, that Quadlogic customers are the only customers that benefit from

their use, and that the cost of these meters are clearly ascertainable. When asked whether, given these attributes, the cost of these meters should be directly allocated, Mr. Seal's response was "that is one approach that can be taken."

10. Indeed, there has been only one specific objection by THESL to directly allocating the Quadlogic meter costs to the Quadlogic Class. Initially, Mr. Seal, through an interrogatory response, expressed concern that if you directly allocated the Quadlogic meter costs, you might not be properly allocating to the Quadlogic Class some of the upstream wholesale meter costs.[6] Upstream wholesale meter costs would be allocated to the Quadlogic Class through another account.

11. While there was some mention made by Mr. Seal at the hearing about other non-specific costs being or not being properly allocated to the Quadlogic Class,[7] Mr. Seal could not specifically point to any other cost which should be added or removed as a result of directly allocating Quadlogic meter costs. The following exchange is taken from pages 24 and 25 of the oral hearing transcripts and immediately follows Mr. Seal's confirmation that his concern about wholesale meter costs no longer exists.

> MR. SEAL: .... So my concern about the wholesale meter costs and them being allocated properly does disappear.
>
> MR. O'LEARY: And would you agree with me, Mr. Seal, that that is the only concern that you've raised to this date, other than your general concern now that there might be other costs, but that's the only specific concern you've raised about directly allocating those capital costs to the Quadlogic class?
>
> MR. SEAL: That was my concern with respect to meter capital costs, yes.
>
> MR. O'LEARY: But for the record, you're not aware of any other specific cost which the Quadlogic class should be allocated, which will be avoided by directly allocating the meter costs?
>
> MR. SEAL: Well, I think my concerns about meter cost allocation, there are no other concerns I would have about the way meter costs were allocated.
>
> I would make sure it was done properly. So in addition to the capital costs, we need to make sure depreciation is allocated properly, or not allocated, as appropriate, and any other meter-related costs.

[6] Response to Board Staff IR No. 10, Ex. R4/T1/S10, Corrected at the oral hearing, Tr. , p.6
[7] Tr. 3, Oral Hearing, pp. 24 and 25

> But the issue of not being able to separate the wholesale meter costs from the overall meter costs, that does -- that is no longer there."

12. There is, therefore, no evidence which supports a finding that the revenue-to-cost ratio figures which THESL has generated to date where Quadlogic meter costs have been directly allocated require any substantial revision. While there remains a need for a further cost allocation run to be completed using updated figures for meter reading and marketing costs, so long as the manner in which the Quadlogic meters are directly allocated is undertaken pursuant to the approach advocated by the SSMWG, then the Board should have comfort in believing that the revenue-to-cost ratio that will be generated by the independent consultant will be close to 90.5 percent.

13. The Board's Directions on Cost Allocation Methodology, dated September 29, 2006 (EB-2005-0317) states, at page 31, that "direct allocation must be applied if, and only if, 100 percent of the use of a clearly identifiable and significant distribution facility can be tracked directly to a single rate classification." Quadlogic meters clearly meet this definition. THESL is thereby obligated under the Board's directions to directly allocate the Quadlogic meter costs and, consistent with page 32 of the Board' directions, the direct allocation is required to capture all associated accounts.

Meter Reading Costs

14. In the BDR Second Study, BDR determined that the cost to read Quadlogic meters was 7 times the cost of reading regular urban residential meters.[8] Accordingly, a weighting factor of 7 was used for the cost allocation model run that BDR completed.

15. THESL, in its Supplementary Evidence, reduced the weighting factor to 3.6, alleging that it would be taking the meter reading function in-house in the first half of 2012. At the technical conference, at transcript pages 28 and 29, THESL witness, Mr. Marchant, confirmed that for the first three months of 2012, the meter reading function would continue to be undertaken by a third party vendor and the costs would remain as those stated in the BDR Second Study. The weighting factor, for at least the first three months

[8] Ex. L1/T4/S1, p. 19

should be 7. Mr. Marchant admitted this specifically at page 29 of the technical conference transcript.

16. As a result, THESL was asked to calculate the appropriate weighting factor, assuming that the meter reading function was taken in-house beginning the second quarter of 2012. In THESL's response to undertaking JTC 2.3, it calculated the appropriate weighting factor using the more accurate 3 month/9 month estimate for costs for 2012 at 4.3. Accordingly, the correct weighting factor is no less than 4.3, not 3.6 as suggested by THESL in its Supplementary Evidence.

17. In addition, THESL witnesses were asked at the technical conference about whether or not there have been any additional costs incurred or anticipated in taking the meter reading function in-house. Mr. Marchant indicated that there were, and in Undertaking response JTC 2.4, THESL confirmed that the budget had increased by $100,000.

18. At the oral hearing on December 7, 2011, Mr. Seal was asked under cross-examination whether this additional $100,000 in costs was included in THESL's cost allocation study as filed on September 30, 2011. Mr. Seal's response was that it was not included.[9] Accordingly, it is also necessary to update the cost allocation study to include these and any additional costs that have come to light.

Promotional and Marketing Costs

19. Exhibit KH 3.2, at Tab 12, contains a series of computer screen print-outs, dated December 12, 2011, all of which deal explicitly with THESL's Quadlogic Suite Meter program. THESL witnesses were taken to these print-outs from THESL's website and asked various questions about the extent to which the promotional and marketing activities would be directed at the perspective Quadlogic customers in 2012. In summary, Mr. Marchant admitted that THESL does receive direct call in enquiries[10], that THESL directs enquiries to its third party vendor which is responsible for some marketing activities, and that third party vendor that is selected under the current RFP in

[9] Tr. 3, Oral Hearing, p. 30
[10] Tr. 3, Oral Hearing, p. 64

progress will continue with such activities.[11] When asked about BDR indicating in its Second Study that some costs associated with membership and trade organizations should be directly allocated to the Quadlogic Class and whether Mr. Marchant was aware of any change, Mr. Marchant could not advise of any reduction in THESL's involvement.[12] He also acknowledged that "various giveaways at trade functions might occur."[13]

20. It was clear from Exhibit KH 3.2, Tab 12, that THESL intended to maintain website pages devoted to its Quadlogic Suite Metering program. Indeed, the website invites perspective customers to call THESL employees in respect of the program.

21. The SSMWG submits that while there may be some reduction in promotional and marketing efforts directed towards perspective Quadlogic Class customers, BDR's reasoning for directly allocating such costs to the Quadlogic Class remains valid. In this regard, THESL's response to SSMWG Interrogatory No. 6 is quite telling.[14] At page 2, it is apparent that THESL questioned the appropriateness of BDR directly allocating $90,000 in promotional and marketing costs given that its "website includes information potentially of interest to any individually metered suite and to the Board's of condominium buildings that are not currently individually metered (i.e., now in the general service class)." It is apparent that THESL attempted to dissuade BDR from directly allocating these costs, even though THESL's website (as confirmed under cross-examination) contains the same information now as it did then. The Interrogatory response then goes to state:

> "However, BDR concluded that direct assignment of the full amount of 2009 costs represented a conservative scenario in view of the objective of the study, which was to enable to the Board to consider whether the Quadlogic customers receive an undue subsidy from other residential customers."

22. The SSMWG submits that this logic supports not only the continued direct allocation and inclusion of marketing and promotional expenses, but also supports directly allocating

[11] Ibid.
[12] Ibid.
[13] Tr.3 Oral Hearing, p. 65
[14] Ex. R3/T3/S6

Quadlogic meter costs to the Quadlogic Class. The reasoning is as sound today as it was when BDR issued its Second Study. BDR was simply following the Board's Directions on Cost Allocation Methodology. At page 32, the Directions state that:

> "Direct allocation must also be used where identifiable O&M activities can be directly allocated to one customer classification."

23. In THESL's response to Undertaking JH 3.5 given at the oral hearing, it compared its current practice with that proposed under its 2011 RFP. The response states in respect of sales and marketing that currently, THESL develops and provides the majority of all promotional material. Under the RFP, it states that THESL or the successful respondent may develop and provide the promotional material. Accordingly, it appears that THESL continues to believe it has a role in marketing and promotion. Indeed, as appears at page 3 of the response, the successful respondent to the RFP will be required to issue a separate invoice for marketing and sales, suggesting that while THESL may not undertake the activity, it will still be paying for marketing and sales. There appears, therefore, every reason to continue to believe that BDR was correct in its approach.

Secondary Costs should not be Adjusted

24. It comes as no surprise that some multi-unit residential buildings are supplied by primary circuits at high voltages. This is not something new. It is also a well known fact that some multi-unit residential buildings and most single family homes have been and continue to be provided service through secondary circuits. Despite these known realities, secondary costs have been and will continue to be treated as pooled costs to be shared by all members of the residential rate class. Despite this, THESL proposes to treat Quadlogic residential customers different from all other residential customers.

25. In the BDR November 29, 2010 Study, it was estimated that 70 percent of all multi-unit buildings are of a load level that would be not served by secondary infrastructure[15]. In the BDR Second Study, this figure was increased to 92 percent. As a result, THESL proposed to eliminate 92 percent of secondary costs from the 9,149 Quadlogic customers.

[15] Ex. L1/T3/S1, p. 20

26. For the purposes of THESL's Supplementary Evidence, it continued to allocate only 8 percent of the secondary costs to the Quadlogic Class even though its answer to Board Staff Interrogatory No. 1b) indicates that the correct number should be just under 10 percent given that 11 of the 113 buildings that will use Quadlogic suite meters in 2012 are serviced by secondary circuits.

27. The SSMWG states that THESL's adjusting for secondary costs is contrary to sound cost allocation principles and will specifically prejudice the remaining residential class and circumvent the entire exercise in this proceeding if what THESL is proposing to do is sustained. These are costs which a material percentage of residential customers (Quadlogic and non-Quadlogic) incur, and they should therefore remain pooled within both residential classes.

28. What THESL is proposing is that the multi-unit residential customers in the Quadlogic Class be treated more favourably than the multi-unit residential customers who are not served by Quadlogic meters. By THESL stripping out 92 percent of the secondary costs from the Quadlogic Class, such costs, by necessity, must be allocated to other ratepayers. In this case, the majority of these costs will be allocated to the residential rate class. This means that those same multi-unit smart meter residential customers that are not served by secondary circuits will in future be allocated even a greater portion of the secondary circuit costs than they are currently allocated. This only aggravates the situation and creates inequality.

29. It is also self-evident why THESL is recommending that the Board strip out the secondary costs from the Quadlogic Class. By removing these costs, this tactic acts as a counter balance to the impact of the increased capital and O&M costs to purchase, install and read Quadlogic meters relative to standard smart meters. It has obviously been done simply to decrease the revenue-to-cost deficiency.

30. It will also allow THESL to advise building owners and developers that if they use a THESL Quadlogic meter, the units in the building will avoid 92 percent of secondary costs; whereas if the building owner or developer instead decides to install standard smart meters, the customers in the building will be required to pay 100 percent of the

residential rate class secondary costs which, under THESL's proposal, will also include 92 percent of the costs that have been reallocated from the Quadlogic Class.

31. There is no question that members of the Quadlogic customer class do receive service by means of secondary lines, as do customers in multi-unit residential buildings that are smart metered. As a matter of sound cost allocation methodology principles, there is no justification to treat virtually the very same profile of customer differently solely because they have chosen to install a different meter. While the costs of Quadlogic meters clearly only benefit the members of the Quadlogic Class, the costs of secondary circuits serve a full range of residential customers, including some of the customers in the Quadlogic Class. The SSMWG submits that to "cherry pick" and remove such costs is both inappropriate and will only, in effect, defeat the goal of this proceeding, namely, to identify, in a transparent fashion, the additional costs of serving Quadlogic customers.

32. There is a further reason why secondary costs should not be adjusted. In this regard, the SSMWG relies upon the oral evidence of THESL's witnesses during the hearing. Under cross-examination, THESL witnesses confirmed that each of its General Service Customer Classes over 50 kilowatts ("GS > 50 kW") are directly allocated primary costs from a number of accounts. They also confirmed that existing bulk metered apartments and condominiums fall into a GS > 50 kW Class, and thus, as such customers, they share in these directly allocated primary costs.[16]

33. THESL witnesses further confirmed that when these buildings are converted (whether to a smart meter system or a Quadlogic meter system) a portion of the building (i.e., its common elements) will remain a GS > 50 kW Class, while the balance of the building becomes residential customers who do not attract any of the costs that were formally directly allocated to it as a GS > 50 kW rate class.

34. THESL's witnesses stated that under the Board's cost allocation methodology, where two classes may share in a service which was formally directly allocated, the appropriate step is to no longer directly allocate that cost to either class. So in the case of a primary

[16] Tr. 3 Oral Hearing, pp. 48-54

feeder to a building which generated a direct primary cost allocation, upon the conversion of that building, the direct allocations would be discontinued, even though the building and all of its occupants continue to be served by the same feeder.

35. THESL witnesses were asked whether they considered it appropriate to recommend a change in the Board's cost allocation methodology such that where buildings have a primary feeder and are converted, that the costs which were formally directly allocated to the rate class in which that building existed should now be directly allocated to the Quadlogic Class because it remains the same building and occupants. Mr. McLorg responded (at page 55) as follows:

> "If you are now suggesting that we should undertake a course of tracing costs to individual buildings, then I think that that undermines the concept of class ratemaking as it has been practiced by the Board historically, because we don't do that.
>
> We certainly don't do that in the general residential customer case. We don't have different rates for customers that are served by underground equipment versus overhead equipment, and so on.
>
> So I think that that goes well beyond what Toronto Hydro was asked to do in this."

36. The SSMWG submits that the logic of Mr. McLorg's response applies equally to THESL's proposal to strip out 92 percent of secondary costs. If it is inappropriate to determine whether or not there are directly allocable primary costs which should remain allocable to the Quadlogic Class, then it equally follows that you should not undertake a tracing exercise regarding secondary circuits only in respect of Quadlogic buildings, to the detriment of those buildings and ratepayers in non-Quadlogic served buildings who will now have to pay the costs re-allocated from the Quadlogic Class.

37. To be clear, the SSMWG does not recommend that the Board demand this level of granularity in its cost allocation methodology. If secondary costs are to be reduced, they will need to be necessarily examined each year, and this will invite enquiries about the number of buildings, units served, history of the building (i.e., was it converted), whether its primary feed generated a direct allocation earlier, and other questions, solely for the

purpose of determining the exact number or percentage of Quadlogic customers that receives service from secondary circuits.

HISTORY OF THESL'S ACTIONS

38. The history of THESL's actions in this proceeding and the generation of often intuitively incorrect results filed in evidence is important as it speaks to the credibility and reliability that can be placed upon THESL's evidence. It is appropriate to briefly review each of the steps in this proceeding.

39. In its Decision dated April 9, 2010 (EB-2009-0139), at page 29, the Board asked THESL to prepare a cost allocation study related to its provision of suite metering services. Specifically, the Board stated:

> " … the Board finds that THESL should undertake a cost allocation study related to its provision of suite metering services. The study shall include an analysis of the implication of creating and maintaining a separate rate class for those customers served in this matter. The Board is of the opinion that the potential for cross-subsidization is ongoing and that there may be merit in the establishment of a separate rate class for multi-unit residential customers that are served directly by THESL through its suite metering provision. This should be filed as part of the next cost of service application which THESL intends to file later this year ..."

40. In response to the Board's directive, THESL issued a RFP and from this process, it selected BDR, who prepared a report dated November 29, 2010 (the "BDR November 29, 2010 Study"). In short, despite the fact that the above directive of the OEB arose by reason of the SSMWG's intervention solely in respect of THESL's Quadlogic Suite Metering program, the BDR November 29, 2010 Study did <u>not</u> examine the costs of the Quadlogic customers of THESL, being the Suite Meter Program which THESL operates as part of the competitive market. Instead, BDR lumped these customers together with approximately 110,000 multi-unit residential building customers, most of whom had been smart metered as part of THESL's Smart Meter program. The Smart Meter program was not raised as an issue by the SSMWG, was not competing with private sector smart sub-meter companies, and was already the subject of a detailed review of its costs for the purposes of developing a smart meter rate adder.

41. The obvious purpose of THESL's actions was to combine the smaller number of the significantly more costly Quadlogic meters with the larger number of less expensive smart meters, and thereby reduce the average cost to the class THESL created. The new class proposed in the BDR November 29, 2010 Study consisted of customers that were partially the result of THESL's actions in the competitive marketplace (9,149 customers as of 2009) with the balance of the class in this group (about 110,000), most of whom had been metered as part of THESL's non-competitive market Smart Meter program.

42. Following a motion brought by the SSMWG, the Board ordered THESL to complete a further study examining the costs associated with THESL's competitive market Quadlogic Suite Meter Program.[17] As noted earlier, the Second BDR Study was completed on February 18, 2011.

BDR's Second Study

43. For the purposes of the Second Study, BDR examined the cost to serve 9,149 Quadlogic customers and determined a revenue-to-cost ratio of 94.89%[18]. While THESL did not provide a live model for the cost allocation undertaken as part of the BDR Second Study, the SSMWG has determined that this ratio was based upon the following assumptions:

(a) the cost of the Quadlogic meters, even though they are directly attributable to and only benefit members of the Quadlogic Class, were not directly allocated to the Quadlogic Class;[19]

(b) the cost to read the Quadlogic meters was 7 times the cost of reading regular residential meters;[20]

(c) BDR allocated directly to the Quadlogic Class $90,000 for marketing and promotion;[21]

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[17] OEB Decision and Order on Motion, EB-2010-0142, January 21, 2011, p. 7
18 Ibid., Table 5.1, p. 18
19 Tr.3, Oral Hearing, pp. 18-19
20 Ex. L1/T4/S1, p. 19

(d) BDR reduced the secondary costs allocated to the Quadlogic Class by 92 percent to 8 percent of what would otherwise have been allocated[22].

44. The Board issued its Partial Decision and Order on July 7, 2011, in Phase I of the proceeding and directed THESL to prepare and file supplementary evidence to establish both the cost allocation protocols for the new customer class and to establish the initial tariff that THESL will charge for this service.[23]

THESL's Supplementary Evidence, September 30, 2011

45. THESL filed its Supplementary Evidence on September 30, 2011 (Exhibit L1, Tab 5, Schedule 1). Despite having used BDR, an outside consultant, for the two prior cost allocation studies, THESL undertook this cost allocation study itself for the purposes of its supplementary evidence. For the purposes of its evidence, THESL stripped out 92 percent of the secondary costs and reduced the meter reading costs from a factor of 7 to 3.6 (page 4) given THESL's intentions to take the meter reading functions in-house. THESL increased the cost per meter from $450 to $550 (page 4), and it removed the $90,000 of directly allocated marketing expenses (page 5), which BDR considered appropriate. As a result of these changes, the revenue-to-cost ratio increased from 94.89 percent, as recorded in the BDR Second Study to 104.7 percent (page 5, filed September 30, 2011), as calculated by THESL.

46. Once again, the SSMWG felt it necessary to bring a motion for various relief, including requiring THESL to provide a live Excel model of its cost allocation model and to request a technical conference in the hope that parties might be able to better understand what had caused the change in the revenue-to-cost ratio in the Second BDR Study.

THESL's Corrections to its Supplementary Evidence and Responses to Interrogatories

47. In response to SSMWG Interrogatory No. 17[24] THESL noted that it had discovered an error in the values entered in its cost allocation study filed as part of its September 30,

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21 Ex. L1/T4/S1, p. 11
22 Ibid, p. 14
23 Partial Decision and Order, July 7, 2011, p. 36
24 Ex. R4/T3/S17, November 4, 2011

2011 Supplementary Evidence. As a result, THESL filed Corrected Supplementary Evidence on November 4, 2011, and provided a revised live Excel cost allocation study. As a result of the corrections, the revenue-to-cost ratio for the new Quadlogic Class fell to 100.5 percent (page 6 of 13, Corrected). Importantly, THESL also undertook a sensitivity analysis of its revenue to cost ratios to alternative assumptions and concluded that if it directly allocated meter costs to the Quadlogic Class, the resulting revenue-to-cost ratio would be 95 percent (page 7 of 13, Corrected). As well, if it did not strip out 92 percent of the secondary costs, the revenue-to-cost ratio would fall a further 3.4 percent, to 91.6 percent (page 7 of 13, Corrected).

Technical Conference, November 9, 2011

48. One of the issues raised during the technical conference was the planned move by THESL to take the meter reading function in-house and the resulting impact on meter reading costs. BDR and THESL earlier confirmed that the appropriate weighting factor for meter reading costs of the Quadlogic meters by an outside entity is 7 times that of standard smart meters. By taking this function in-house, THESL estimates that the costs will fall to a weighting of 3.6.

49. At the technical conference and subsequent undertaking response, THESL confirmed that it would not assume this function in-house until the end of the first quarter, at the earliest,[25] and that the budget for the program to take the metering in-house had increased by $100,000, in comparison to the budget presented in THESL's September 30, 2011 Supplementary Evidence.[26]

50. As a result, THESL was asked to undertake a further run of the cost allocation model adding to its meter reading costs the additional $100,000 in budget (as confirmed by THESL at Undertaking JTC 2.4) and to use the existing meter reading weighting of 7 for the first three months of 2012 and the estimated weighting of 3.6 for the remaining 9 months of 2012. THESL's response at Undertaking JTC 2.3 states that the 3-month / 9-

[25] Tr. Technical Conference, p. 27
26 JTC 2.4

month "actual" forecasts for meter reading costs for 2012 produced a weighting factor of 4.3.

51. In response to a further request that THESL use this weighting factor of 4.3 and directly allocate the Quadlogic meter capital costs to the Quadlogic Class, THESL, at Undertaking JTC 2.7, advised that the revenue-to-cost ratio for the Quadlogic Class would be 93.9 percent. It is important to recognize that this figure does not include 92 percent of the secondary costs, nor the $90,000 in marketing costs which BDR thought should be directly allocated to the Quadlogic Class. By adding back in the secondary costs which, for the reasons stated above, should not have been removed, the revenue-to-cost ration falls a further 3.4 percent to 90.5 percent.[27]

Oral Hearing

52. At the oral hearing there was some suggestion that the revenue-to-cost ratio of 93.9 percent, which THESL indicated as being the appropriate revenue-to-cost ratio where Quadlogic meter capital costs are directly allocated and the correct forecast for meter reading costs are included, might inappropriately exclude or include other costs which should be added/removed.

53. On December 13, 2011, THESL filed Undertaking JH3.1. In this run, the revenue-to-cost ratio increased by more than 20 percent to 112.2 percent. THESL's response makes no effort to explain or support this result. The undertaking response simply indicates that the primary reason for the increase is because "the directly allocated meter capital costs to the Quadlogic Class are lower than meter capital costs allocated using the model's meter capital allocators logic." Obviously this is intuitively wrong, as the Quadlogic meter capital costs are 3.5 times greater than standard smart meter costs ($550 versus $159 in 2012), and the cost to read these meters, including the specific equipment THESL has been acquiring solely for the purposes of reading Quadlogic meters) are between 3.6 and 7 times higher than reading the standard smart meter, as noted earlier.

27 Corrected Supplementary Evidence, November 4, 2011, Ex. L1/T5/S1, p. 7, Table 3, and JTC 2.7

54. It should therefore come as no surprise that THESL does not state in its response to Undertaking JH3.1 that the Board should rely upon and take comfort in the response. THESL does not state that it has correctly made appropriate adjustments to the model to reflect what was done. It is therefore not surprising that THESL does not in its Final Argument rely upon this response but instead advocates a revenue-to-cost ratio of 100.5 percent, being the figure taken from its Corrected November 4, 2011 Supplementary Evidence. In other words, THESL does not view its own response at JH 3.1 as credible and worthy of adoption.

THESL's Response at Undertaking JH3.1 is Simply Wrong

55. Not only is the result intuitively wrong, the SSMWG, with the assistance of its consultants, Elenchus, have determined that THESL's methodology is wrong. THESL's response is not a complete answer to the issue raised. THESL has ignored the impact of directly allocating Quadlogic meter costs on the composite allocators used in the Cost Allocation Model. By assigning a value of "0" to the Quadlogic Class in Input Sheet I7.1 Meter Capital, no costs are allocated to the Quadlogic Class for accounts that use composite allocators. For example the composite allocator NFA ECC that is used to allocate General Plant to the customer classes, allocates no costs to the Quadlogic Class, something that is obviously not correct. Other composite allocators that are affected are OM&A, O&M, ACCT and NFA.

56. What THESL should have done when directly allocating meter costs to the Quadlogic customer class is to create two inputs for Sheet I 7.1: (1) a value of "0" to directly allocate the Quadlogic meter costs to the Quadlogic Class; and (2) a value other than "0" be used by the composite allocators used in the cost allocation model. Elenchus estimates the costs that would be allocated to the Quadlogic Class by composite allocators to be approximately $400,000.

57. In addition, USoA account 1860 Meters has a value of $ 215 million in input Sheet I3 TB Data, cell D 128, while the replacement cost for all meters is $178.5 million, as per input Sheet I7.1. This seems to indicate that the meter asset account may include more costs that just meters and the additional costs included in this account should be allocated to

all customer classes served by THESL, including the Quadlogic Class. THESL has not reflected this in their Direct Allocation response to Undertaking JH3.1.

58. Accordingly, THESL's response to Undertaking JH3.a is not an accurate or reliable calculation of the revenue-to-cost ratio to serve the Quadlogic Class. It is the result of an incomplete adjustment and run of the cost allocation model. It is also a result which, being filed December 13, 2011 after the oral hearing, has not been subject to any test for accuracy or credibility by interrogatories or cross-examination. The response should therefore be given no weight.

59. The fact is that BDR, in the BDR Second Study, calculated a revenue-to-cost ratio of 94.89 percent[28] without directly allocating meter costs and after stripping out 92 percent of secondary costs. THESL's own Supplementary Evidence, which it corrected on November 4, 2011, calculates a revenue-to-cost ratio of 95 percent if you directly allocate meter costs, and 91.6 percent if you do not strip out secondary costs. If you increase the meter reading weighting factor to 4.3, being the actual estimate for 2012, then the ratio falls to 90.5 percent.[29]

Rate Design

60. The Board in its Partial Decision and Order dated July 7, 2011 (at page 35) found 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's sub-metering marketplace and between this competitive marketplace and the monopoly services. The Board went on to state that:

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[28] BDR Second Study, p. 18

[29] At Undertaking JTC 2.7, THESL acknowledged that if they increased the weighting factor to 4.3 (which represents the costs to read the Quadlogic meters in 2012, for the first 3 months at a weighting factor of 7 and for the balance of the year at 3.6), the revenue-to-cost ratio falls to 93.9 percent (the costs of the meters have been directly allocated under this Undertaking response). Using the sensitivity analysis from THESL's Corrected Supplementary Evidence (November 4, 2011) which states that the removal of secondary costs would increase the deficiency 3.4 percent, the resulting deficiency is 90.5% (93.9 – 3.4 = 90.5%).

> "The transparency of the specific costs of the suite metering service is required on an ongoing basis."

The Board concluded that it would be appropriate to use the existing cost allocation tools adding:

> "A virtue of establishing an ongoing cost-allocation process is that the accounting protocols are established in advance and real activity costs are tracked with the intent to identify the class revenue requirement. The Board considers the merit of this approach of exposing the specific costs to be superior to the options that require the deconstruction of pooled costs of the much larger residential rate class on a retroactive basis." [emphasis added]

61. The Board then went on (at page 36 of its Partial Decision and Order) to require THESL to prepare and file Supplementary Evidence with the objective of the subsequent phase of the proceeding being to establish both the cost allocation protocols for the new customer class and to establish the initial tariff that THESL will charge for the service.

62. In its Supplementary Evidence (as Corrected on November 4, 2011), THESL proposed that the fixed charge for the Quadlogic Suite Meter class would decrease by about $4.00 per month (or 20 percent) relative to the remaining residential rate class, and that the variable component would increase by about 64 percent. The SSMWG submits that THESL's intent by this proposal is the only thing which is transparent. It is clear that such a rate design is intended to mask any revenue deficiency that exists and to give the new Quadlogic rate class a rate which appears on its face to be more attractive than the existing residential rate class. Given that there is a revenue deficiency of about 9.5 percent, if THESL's rate design is adopted there is absolutely no means for the average customer, building owner, or developer to know that the lower fixed charge and higher variable charge will, in the end, recover the deficiency. Stated differently, THESL's rate design would completely hide the additional higher costs to acquire, install, maintain and read Quadlogic meters.

63. Indeed, when one does the math comparing a Quadlogic customer with identical consumption with a multi-unit residential building customer in the residential rate class, it is clear that THESL's rate design favours the Quadlogic customer. First, it is appropriate to see what THESL has done. From Sheet 02 of THESL's Cost Allocation Model filed

November 4, 2011,[30] the following ranges are generated by the model for the fixed charge component of the Quadlogic and the remaining residential rates.

Summary	Quadlogic Class	Residential Rate Class
Customer Unit Costs per month – Avoided Costs	$ 12.71	$ 4.52
Customer Unit Costs per month – Directly Related	$ 17.60	$ 6.62
Customer Unit Costs per month – Minimum System with PLCC adjustments	$ 23.76	$ 20.35
Existing Approved Fixed Charge	$ 18.50	$ 18.50

64. From Table 4, at page 9 (Corrected) of THESL's Supplementary Evidence, THESL is proposing the following fixed and variable charges:

Summary	Quadlogic Class	Remaining Residential Class
Fixed Monthly Charge	$16.29	$ 20.16
Variable ($/kWh)	0.02701	0.01646

65. As noted from above, THESL is proposing a fixed charge of $20.16 for its residential rate class in 2012, near the top of the range. By comparison, the range for the Quadlogic Class begins at a low of $12.71 and reaches $23.76 at the high end. By proposing a fixed charge of $16.29, which is closer to the bottom end of the range, THESL is clearly trying to distinguish its Quadlogic rate class from the balance of its residential customers, but in the wrong direction. As the costs to serve Quadlogic customers are greater, the SSMWG submits that it would be more appropriate to increase the fixed component alone or together with the variable charge to reflect the additional costs to serve the Quadlogic Class. If the revenue-to-cost ratio is 90.5 percent and the deficiency is to be recovered from Quadlogic customers, one mechanism would be to add 9.5 percent to the fixed and variable charge. At the technical conference and oral hearing, THESL witness Darryl Seal admitted that this could be done.[31]

66. A further justification for dismissing THESL's rate design is apparent when one undertakes a simple mathematical exercise to see how two similar customers would be

[30] 2012 Cost Allocation Sheet 03, filed November 4, 2011 (Corrected), Tab 1B of Ex. KH3.2
[31] Tr. 3, Oral Hearing, p. 83

treated under THESL's rate design. What one finds is that if you take two customers with identical consumption profiles, one that uses a standard smart meter and the other a Quadlogic meter installed by THESL, if, as THESL proposes, the volumetric charge is increased by 64 percent for Quadlogic customers and the Quadlogic customer takes advantage of energy efficiency and CDM measures, he or she will enjoy greater bill savings than the customer using the standard smart meter who reduces his or her consumption by the identical amount. Under THESL's rate design proposal, the Quadlogic customer that reduces his or her electricity usage by 10 percent will save more than the standard smart meter residential customer that reduces his or her electrical usage by exactly the same amount. Such dissimilar treatment is in no way the result of the use of a Quadlogic versus a standard smart meter. Both generate the information and data necessary for the customer to pursue energy efficiency initiatives.

10% Less Electricity Usage by Both Customers (Savings)

Quadlogic Class:		
10 % of 4800 kWh =480		
480 x .02701 =	12.96	(Savings)
Residential Class Customer:		
10% of 4800 kWh = 480		
480 x. 01646 =	7.90	(Saving)
Difference	5.06	(39%)

67. What the above Table demonstrates is that not only will THESL be able to "market" a lower fixed charge for its Quadlogic Metering program, it will also be able to say that its Quadlogic customers can save more on their distribution charges than the residential rate customer where both reduce their energy usage by the identical amount. In the 10 percent example noted above, the savings difference is 39%. The SSMWG submits that these are the wrong signals to be sending, particularly in a competitive sub-metering marketplace.

68. The SSMWG submits that for reasons of transparency within the competitive unit sub-metering marketplace, and for reasons of simplicity, the Board should order that THESL

charge a "Competitive Unit Sub-Metering" rate adder which is calculated to recover on an annual basis the forecast revenue deficiency of serving the Quadlogic Class using approved residential rates. By leaving the residential rate the same for both classes, there will be no confusion amongst residential customers (whether they are Quadlogic or smart meter customers) about why the difference in rates exists. It will be clear from the bill that there is a monthly additional charge for the Quadlogic (or a successor technology) meters. It is submitted that the fixed and volumetric rates should be the same for both the Quadlogic and non-Quadlogic residential customers and to include a rate adder which specifically identifies the reason for the additional costs, namely, the use of a competitive market unit sub-metering system.

CONCLUSION

69. The SSMWG submits that there can be little question that the new THESL Quadlogic rate class is in a revenue deficiency situation. This should come as no surprise given that Quadlogic meters are significantly more costly to acquire, install, maintain and read. THESL's own third party cost allocation expert, BDR, determined in the BDR Second Study that the revenue-to-cost ratio was 94.89 percent without directly allocating the cost of the Quadlogic meters to the Quadlogic Class and after stripping out all but 8 percent of the secondary costs. THESL's own Supplementary Evidence found that if the Quadlogic meters are directly allocated to the Quadlogic Class, that an appropriate weighting factor for meter reading is included, and secondary costs are not inappropriately reduced, the revenue-to-cost ratio is 90.5 percent. This is the best and most reliable evidence that has been produced in this proceeding.

70. The SSMWG submits that secondary costs should not be reduced for the Quadlogic Class because this exercise will only tend to mask the additional costs which are directly attributable to that class. It will also treat similar residential multi-unit consumers differently solely because of the meter which reads their electricity usage. It will also inequitably transfer secondary costs to the remaining residential rate class even though there is a significant number of multi-unit residential customers who similarly do not receive service by means of secondary circuits.

71. Should the Board ultimately accept THESL's position that the secondary costs should be stripped out, then the SSMWG submits that the percentage of buildings actually served by secondary circuits should be determined annually and that figure used for cost allocation purposes. Currently it is 9.7 percent.[32] As well, if such granular adjustments are to be considered, the SSMWG submits that the Quadlogic Class should be directly allocated its appropriate share of the primary service accounts charges which are directly allocated to the GS > 50 KW customers. If the Quadlogic customers are not assigned their share of such directly allocable costs, then these customers will have avoided the secondary costs which are shared by all residential ratepayers (other than them) and they also will have avoided any allocation of the directly allocable primary circuit charges in accounts 1840, 1845, 2105, 5040, 5045, 5150 and 5705.

72. The SSMWG submits that the evidence in this proceeding leads to the conclusion that the forecast deficiency in 2012 is 90.5 percent. This deficiency should be recovered from the Quadlogic ratepayers through a transparent, competitive market unit sub-metering rate adder calculated to recover the deficiency from the forecast customers over 12 months. A somewhat more complicated and less transparent rate design would involve increasing the fixed portion of the prevailing residential rate to recover the forecast deficiency.

73. The SSMWG does not recommend increasing the volumetric component of the Quadlogic rate class for the reasons stated earlier, namely, that it would appear to create an economic benefit for Quadlogic Class ratepayers who conserve. It is submitted that Quadlogic Class ratepayers should not generate a greater benefit by electricity conservation than a similarly conservation-minded residential class ratepayer. As well, by recovering a portion of the deficiency through the volumetric charge, the SSMWG submits that the deficiency is completely "buried" and few, if anyone, would comprehend that the increase in the volumetric charge was the result of the increased costs of supplying and servicing Quadlogic meters.

[32] THESL Response to Board Staff Interrogatory 1(b), Ex. R4/T1/S1, p. 3 (11 of 113 = 9.7%)

74. Again, the SSMWG submits that the most transparent method of identifying and making known to the competitive marketplace the costs of THESL providing and servicing Quadlogic customers is to calculate a competitive market unit sub-metering rate adder and to leave the fixed and variable charges for the Quadlogic Class the same as that approved for the residential rate class. By including as a separate line item in every bill an amount which recovers the deficiency, and by using for the Quadlogic Class the same fixed and volumetric charge as is used by the remaining residential rate class, there will be similar treatment for similar customers in terms of their bill, with the exception of the additional rate adder for the more expensive Quadlogic services. There will then be a transparent manner of dealing with the existing subsidy from other ratepayers.

ALL OF WHICH IS RESPECTFULLY SUBMITTED.

Dated: December 22, 2011

"Original signed by "Dennis O'Leary"

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