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April 18, 2011

**DELIVERED and RESS**

Kirsten Walli  
Board Secretary  
Ontario Energy Board  
P.O. Box 2319, 27<sup>th</sup> Floor  
2300 Yonge Street  
Toronto, ON M4P 1E4

Dear Ms. Walli:

**Re: Toronto Hydro-Electric System Limited 2011 Cost of Service Application  
Board File No. EB-2010-0142**

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We enclose two paper copies of the Submissions of the Smart Sub-metering Working Group in the above-noted proceeding.

An electronic version of same will be filed today through the Board's Regulatory Electronic Submission System.

Yours truly,

AIRD & BERLIS LLP



David Stevens

/ct  
Enclosures

cc The Applicant  
cc J. Mark Rodger, Borden Ladner Gervais LP  
cc Intervenors

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**ONTARIO ENERGY BOARD**

**IN THE MATTER OF** the *Ontario Energy Board Act, 1998*, S.O. 1998, c. 15, (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 to be effective May 1, 2011

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

**Introduction**

1. This is the third utility rate proceeding in which the SSMWG has been involved as an intervenor. In this proceeding, as was the case in the earlier rate proceedings and the Compliance Proceeding (EB-2009-0308) initiated against Toronto Hydro-Electric System Limited ("THESL"), the SSMWG's concern has always been the impact of THESL's Quadlogic suite metering activities and related conduct on the competitive market which exists for the installation, maintenance and customer care functions of multi-unit residential customers served by Quadlogic or similar-type metering systems.
2. In this proceeding, the SSMWG is responding to Issues 7.2 and 7.3 which deal with THESL's suite metering cost allocation and ask whether it is appropriate for THESL to establish a separate rate class for THESL's suite metering customers.

**What is a Quadlogic System?**

3. As confirmed by THESL's witnesses, the Quadlogic metering system is an electronic metering system that takes up only a fraction of the space of the more common smart meters which THESL has installed in approximately 110,000 units in multi-unit residential high-rises and over 400,000 single family homes.

4. Importantly, THESL has acknowledged that building owners and developers have the choice to choose between the installation of a Quadlogic metering system or standard smart meters.<sup>1</sup>
5. The space savings which developers and building owners installing Quadlogic systems enjoy permit such parties to then use the space for other purposes, such as for sale or lease. As THESL witness David Grant acknowledged, the installation of a Quadlogic system is of benefit to the building owner or developer and has a real financial value.<sup>2</sup>
6. BDR has confirmed in its Cost of Service Reports that the capital cost to acquire and install Quadlogic systems is significantly higher than other metering systems. BDR also confirmed that Quadlogic smart meters are more expensive to read and maintain.<sup>3</sup> For the purposes of the Cost of Service Study undertaken by BDR dated February 18, 2011 (the “February BDR Study”), a figure of \$440 per meter point was used. However, THESL witnesses acknowledged orally and in answers to SSMWG Interrogatories that the average cost for retrofits is actually higher, at \$473 per meter unit.<sup>4</sup>
7. The Quadlogic metering system is in fact an “upgrade” over the more common smart meters which THESL has installed as part of its Smart Meter Program. The Quadlogic metering system is the “Cadillac” of metering systems. In virtually every case, a developer or building owner can be adequately served by the installation of the less expensive smart meters.

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<sup>1</sup> Tr. 1, p. 31.

<sup>2</sup> Tr. 1, p. 27.

<sup>3</sup> Ex. L1/T3/S1, *Cost of Service Study for Individually Metered Suites in Multi-Unit Residential Buildings*, BDR, November 29, 2010, and Ex. L1/T4/S1, *Cost of Service Study for Individually Metered Suites in Multi-Unit Residential Buildings*, BDR, February 18, 2011.

<sup>4</sup> Tr. 1, p. 45, and SSMWG IR #5, Ex R3/T10/S5.

8. Notwithstanding the foregoing, many developers or building owners will request or demand the installation of the Quadlogic metering system, primarily because of the space savings. It is, plain and simple, an upgrade chosen by a customer for which it is inappropriate to require other ratepayers to help pay.

### **A Competitive Market Exists**

9. The Board has acknowledged and confirmed on several occasions that unit sub-metering is a competitive market activity.<sup>5</sup> THESL witness Colin McLorg confirmed under cross-examination<sup>6</sup> that THESL is competing against the members of the SSMWG for its Quadlogic suite metering customers. There can be no question that THESL is directly competing in the competitive suite metering marketplace, yet THESL is not subject to the rigours of the competitive marketplace, unlike each of the members of the SSMWG. THESL has the security of knowing that its suite metering costs will be paid by all ratepayers through rates, notwithstanding the efficiency of its operations and the extent of its customer service. The SSMWG believes, and the experience of its members shows, that THESL's conduct in this competitive marketplace, without appropriate safeguards, is distorting and negatively impacting the competitive marketplace.

### **BDR Confirmed a Cross-Subsidy**

10. A key question in this proceeding is whether other THESL ratepayers are cross-subsidizing THESL's Quadlogic customers. Asked differently, are THESL's Quadlogic customers paying less in rates than the associated costs required to serve those

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<sup>5</sup> OEB Majority and Minority Decision, July 27, 2009, EB-2008-0244 (PowerStream); OEB Decision and Order, January 27, 2010 EB-2009-0308 (Compliance Proceeding); and Decision, April 9, 2010, EB-2009-0139 (THESL); Notice of Amendment of Code, December 16, 2010, EB-2010-0321.

<sup>6</sup> Tr. 1, pp. 31 and 34.

customers. The answer to this question is “yes” - there is a cross-subsidy. In the February BDR Study, the amount of the cross-subsidy is estimated to be in the range of 5 percent.<sup>7</sup>

11. While it is the February BDR Study which ultimately confirmed the cross-subsidy, it is important to look at the earlier BDR Cost of Service Study, dated November 29, 2010 (the “November BDR Study”), as a starting point to assess the reliability of the findings in the February BDR Study.
12. In the November BDR Study, THESL exercised its “professional judgment” and determined that only 30 percent of the multi-unit residential buildings which it serves and which make up the suite metering subclass of approximately 119,000 customers were served by secondary infrastructure. As a result, THESL reduced the secondary costs which were allocated to the suite metering subclass by roughly 70 percent as compared to the secondary costs which would otherwise have been allocated to this subclass. These costs were removed and allocated to other residential ratepayers.<sup>8</sup>
13. In the February BDR Study, as ordered by the Board in response to a motion brought by the SSMWG, BDR and THESL re-cast their analysis to look at only those buildings served by Quadlogic systems. In connection with this exercise, THESL looked at the buildings that it served with Quadlogic meters in 2009, and determined that only 8 percent were served by secondary infrastructure. BDR’s report neglected to note that of the retrofits that THESL serves with Quadlogic metering systems, 13 percent were

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<sup>7</sup> Ex. L1/T4/S1, p. 4.

<sup>8</sup> Ex. L1/T3/S1, pp. 19-20 and Ex. R1/T10/S17.

served by secondary infrastructure.<sup>9</sup> In other words, despite THESL opining on an earlier occasion that in its professional judgment the universe of existing multi-unit residential buildings are served 30 percent of the time by secondary infrastructure, it advised BDR that only 8 percent of secondary infrastructure costs should be allocated to the Quadlogic suite metered class. The problem with this, of course, is that as the percentage of buildings which make up THESL's portfolio of Quadlogic-served buildings increases to include more and more retrofits, then the percentage of buildings served by secondary infrastructure will increase from 8 percent to 30 percent. Additionally, the fact that, under current installation practices, THESL-owned meters are installed downstream of the transformer<sup>10</sup> implies that there are secondary costs (downstream of the transformer) associated with its Quadlogic suite metered class. This further calls into question THESL's assertion that only 8 percent of secondary infrastructure costs should be allocated to the Quadlogic suite metered class. Taken together (or separately, for that matter), these items will increase the cross-subsidy beyond the 5 percent figure calculated by BDR in the February BDR Study.

14. As well, THESL witnesses and THESL's interrogatory responses acknowledged that the cost to serve residential tenancy units tends to be higher (\$473 versus \$440).<sup>11</sup> This, as well, suggests that the costs to serve the Quadlogic suite metered subclass will rise in the future as will, therefore, the apparent cross-subsidy. Accordingly, the evidence suggests that the cross-subsidy of 5 percent is likely to increase in future.

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<sup>9</sup> SSMWG IR #2, Ex. R3/T10/S2.

<sup>10</sup> Ex. R1/T10/S17, p. 2.

<sup>11</sup> Tr. 1, p. 45.

15. The fact that THESL has advised BDR that THESL will reduce the costs of Quadlogic meter reading in future is simply speculation at this point. As the February BDR Study makes clear, there was no attempt to determine the incremental costs incurred by THESL to take the meter reading function of these meters in-house. This assertion should be given no weight in terms of assessing whether or not the apparent cross-subsidy will decrease in the future.

#### **Ramifications of the Cross-Subsidy**

16. Leaving aside the likelihood that the 5 percent cross-subsidy confirmed by the February BDR Study will increase in future, the question before the Board at this time is what is the significance of this cross-subsidy? THESL and BDR play down the 5 percent cross-subsidy of THESL's Quadlogic customers because other residential ratepayers are being cross-subsidized to a slightly greater extent. What this argument fails to recognize is the fundamental distinction between the acceptable degree of cross-subsidy for the purposes of ratemaking in a non-competitive environment and the situation of a cross-subsidy existing in respect of competitive market activities undertaken by a rate-regulated utility. In the latter instance, there can be no question that any cross-subsidy risks damaging the competitive market by making it difficult for all parties to compete and by giving improper price signals to consumers. Of course, the ultimate result of continued and increasing cross-subsidy could be that the competitive market is effectively ruined.
17. Generally speaking, distribution utilities are required to conduct competitive activities within an affiliate. One reason that the *Affiliate Relationships Code for Electricity Distributors and Transmitters* was created was to prevent any competitive advantage being provided to any affiliate of a regulated utility so as to not distort the competitive

marketplace. The fact that THESL has undertaken Quadlogic metering activities within the utility should not allow it to escape or avoid the rigors of safeguards to protect the competitive marketplace and to ensure that potential customers receive appropriate price signals.

18. One obvious example of where THESL is not providing proper price signals is in its economic evaluations undertaken for the purposes of connecting new buildings and its failure to seek any financial contribution from buildings which it retrofits with Quadlogic metering systems. THESL's witness Mr. McLorg confirmed that when THESL undertakes an economic evaluation as required under the *Distribution System Code* for the purpose of determining whether a developer should pay a capital contribution, THESL, without prior approval from the Board, does not include the costs of the Quadlogic metering system in its economic evaluation.<sup>12</sup> THESL admitted that if such costs were added to the economic evaluation, had a capital contribution of any amount being required from the developer, the capital contribution would be increased by an amount equal to the costs of the Quadlogic system that THESL proposes to install. It follows that in instances where no capital contribution is required, adding the cost of the Quadlogic system to the economic evaluation could push the development over the threshold thereby requiring the developer to pay some amount of a capital contribution. THESL also admitted that it does not ask existing buildings to pay for many of the added costs to retrofit a building with Quadlogic meters. Again, it does this at no cost to the customer.<sup>13</sup>

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<sup>12</sup> Tr. 1, pp. 35-41.

<sup>13</sup> Tr. 1, pp. 35-41.



19. There can be no reasonable explanation for this conduct. There is no need for other ratepayers to subsidize the costs of upgrading meters from standard smart meters to Quadlogic metering systems. This is the choice of building owners and developers. It is not a technical necessity. THESL excludes such cost from its economic evaluation for one plain and simple reason - it is able to gain an advantage over the participants in the competitive market by saying that it will install Quadlogic systems in new and retrofit situations at absolutely no cost. The truth is there is a cost; it is simply not borne by the customers receiving the benefits. As was the case in the compliance proceeding against THESL (EB-2009-0308), it would appear that THESL is taking advantage of its monopoly position to gain advantage over competitors. The SSMWG again requires assistance from the Board to remedy the situation.

#### **Options to Remedy the Situation**

20. The SSMWG is mindful of the regulatory burdens that would accompany a requirement that THESL annually develop rates for a subclass of customers in multi-residential buildings who are served Quadlogic meters. This would undoubtedly require THESL to undertake additional and expanded cost allocation studies each year. It would undoubtedly require the SSMWG and other intervenors to inquire and to consider in greater detail the cost allocation studies and the impact on various stakeholders. All of this will add costs to the process. Moreover, there would be ongoing administration costs for THESL from the addition of a new sub rateclass.
21. There is also an issue of fairness, in that it is the developer and building owner that benefit from the space savings that the use of the Quadlogic metering system provides. Where the developer or building owner is able to sell or lease this space, it stands to

reason that all residential ratepayers should not be contributing to or paying for these benefits.

22. The question which arises therefore is how, in an efficient and practical fashion, can safeguards be implemented which will eliminate or significantly reduce the likelihood of THESL negatively impacting the competitive market and/or sending out inappropriate price signals. Given the complexity and additional costs of developing a new residential rate subclass or developing a rate adder based upon the additional costs of installing, maintaining and reading Quadlogic meters, the SSMWG does not recommend that the Board order THESL to undertake either of these options.
23. SSMWG submits that there is a straightforward and more cost-effective and efficient way to deal with the concerns and create a level playing field in respect to the Quadlogic metering system business.
24. THESL's Quadlogic metering system activities should be seen as a separate business unit. It is, in effect, offering an upgrade to developers and building owners over the standard smart meters. It is only in respect of this upgrade to a Quadlogic metering system where THESL is competing with the members of the SSMWG. To make the playing field truly level, the SSMWG submits that THESL should be required in the case of all new multi-unit residential developments to undertake only one economic evaluation and to require a building developer to pay the same or no capital contribution whether the building is installed with Quadlogic meters by a member of the SSMWG or THESL. The Board would, in effect, be requiring THESL to create a notional business for its Quadlogic suite metering activities and to prepare its offers to connect and undertake economic evaluations on the assumption that each new building will be served by a bulk

meter (including the assumption that revenues would be received on that basis). All of the activities from the bulk meter upstream would remain THESL activities. All metering activities downstream in the notional Quadlogic meter business unit would be viewed as a separate and distinct activity to THESL's Quadlogic suite metering business activities.

25. While we use the term "notional" to describe this business, it is more fact than fiction. It is clear from the draft contracts for new and retrofit buildings produced by THESL in response to SSMWG Interrogatory No. 7 (Round One)<sup>14</sup> that installation of a Quadlogic metering system also includes the installation of a bulk meter. Schedule 1 to both agreements state that THESL will supply "one meter point" to measure the total load of each building. Accordingly, THESL does install bulk meters even where it is installing a Quadlogic metering system. It is then possible for THESL to develop and track the costs and revenues related to this business downstream of the bulk meter.
26. While such an approach may on occasion require a developer to pay a capital contribution greater than would be the case if THESL undertook an economic evaluation using the anticipated future revenues from each of the residential units, that is not inappropriate. The fact is that the developer is getting the same service, provided in the same manner, whether from THESL or from a SSMWG company. In that light, it is appropriate that the developer pay the same contribution, regardless of the competitive suite metering option it chooses. Aside from the fact that this proposal would help level the competitive playing field, it has an air of fairness in that the financial benefits due to the space savings of the Quadlogic system would be paid by the developer to the same extent whether THESL meters the building or a SSMWG company meters the building.

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<sup>14</sup> Ex. R1/T10/S7.

By requiring developers to make capital contributions of this nature, it would increase THESL's forecast of capital contributions and therefore reduce the revenue requirement. It would also decrease the cross-subsidy.

27. Some may argue that the Board need only require THESL to include the costs of the Quadlogic metering systems in its economic evaluations. As noted above, this will in some instances lead to the developers paying capital contributions where none would be required under THESL's current "no cost" policy and it would increase the capital contribution required in other respects. While this would be a positive step forward, it will not completely level the playing field and will not reduce the cross-subsidy to the same extent as SSMWG's above proposal.
28. In respect of retrofits, the SSMWG submits that the Board should require THESL to charge building owners for the difference in the costs between the installation of a standard smart metering system and a Quadlogic metering system. The logic to this proposal is that if THESL installed the standard smart meters, it would include such costs as part of its smart meter program. This in effect becomes the base case and the core business activity of THESL, namely the supply and installation of smart meters. If a building owner wishes to upgrade the metering system, it should be required to pay the additional costs. This will again reduce the cross-subsidy and will have a positive impact towards levelling the competitive play field.
29. The SSMWG does not believe that its proposals require changes to the *Distribution System Code*. If the Board or other stakeholders have a different view, the SSMWG would welcome the opportunity to respond to views expressed.

30. Finally, the SSMWG notes that should the Board adopt the SSMWG's proposed remedy, it would be appropriate to require THESL to forecast the increase in capital contributions and/or payments from existing building owners that it will recover in 2011 and to reduce the revenue requirement by a corresponding amount; otherwise there would be double-recovery.

### **Conclusion**

31. The SSMWG appreciates the Board's consideration of the concerns it has raised about THESL's activities in the competitive unit sub-metering marketplace. It does not wish to unnecessarily complicate the regulatory process and add additional costs to any stakeholder. For this reason, the SSMWG has attempted to propose a remedy which would be simple and cost effective to implement, and which would clearly level the playing field between THESL and the privately-owned unit submetering companies which comprise the SSMWG.

All of which is respectfully submitted.

Date: April 18, 2011

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