Ontario Energy Board

EB-2007-0673

Addendum to the Supplemental Report of the Board

on 3rd Generation Incentive Regulation for Ontario's Electricity Distributors

January 28, 2009

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1 Overview

The Board's policy approach to 3rd generation incentive regulation (3rd Generation IR) is set out in the "Report of the Board on 3rd Generation Incentive Regulation for Ontario's Electricity Distributors" dated July 14, 2008. In the July 14, 2008 Report, the Board determined that stretch factors will be a feature of the IR mechanism, and that benchmarking will provide the architecture for their assignment to distributors. Specifically, the Board determined that it will use the results of two benchmarking evaluations to divide the Ontario industry into three efficiency cohorts. The two evaluations will be compared and those distributors that rank superior in both will be assigned to Group 1. Those distributors that rank inferior in both will be assigned to Group 3. All other distributors, including those that rank superior or inferior in only one of the evaluations, will be included in the broad middle cohort, Group 2.

A Supplemental Report of the Board setting out the Board's determination of the values for the productivity factor, the stretch factors, and the capital module materiality threshold for use in 3rd Generation IR was issued on September 17, 2008. With regard to appropriate stretch factor values for the three groups, the Board determined the following:

Table 1: Stretch Factor Values

Group	Benchmarking Evaluations	Stretch Factor Value
1	Statistically superior on the econometric benchmarking model and in the top quartile on the unit cost benchmarking model	0.2%
2	All other distributors, including those that rank superior or inferior in only one of the evaluations	0.4%
3	Statistically inferior on the econometric benchmarking model and in the bottom quartile on the unit cost benchmarking model	0.6%

In the Supplemental Report, recognizing that the risk of misclassification cannot be ruled out, the Board stated its intention to undertake further work on the model it will use to assign stretch factors to distributors and to consult with stakeholders to identify whether it can improve the grouping approach and reduce any potential for misclassification in the two OM&A benchmarking evaluations.

On November 21, 2008, and updated on December 3, 2008, the Board posted sensitivity analysis on the results of OM&A benchmarking evaluations prepared by the Pacific Economics Group ("PEG") to divide electricity distributors into three efficiency cohorts supporting 3rd generation IR. An overview of Board staff's work in support of PEG's analysis and of staff's proposal in relation to the treatment of low voltage ("LV") charges was set out in an attachment to the November 21, 2008 letter. A brief summary of the sensitivity analysis is provided on page 5 of this document. Participants were invited to provide written comments on Board staff's overview and proposal as well as on the results of PEG's sensitivity analysis.

The Board received written comments from the following stakeholders:

- Association of Major Power Consumers in Ontario ("AMPCO");
- Brantford Power, Enersource Hydro Miss., ENWIN Powerlines, Erie Thames Powerlines, Guelph Hydro, Greater Sudbury Hydro, Halton Hills Hydro, Horizon Utilities, Hydro Ottawa, Innisfil Hydro Dist., Kenora Hydro, London Hydro, Norfolk Power Dist., North Bay Hydro, Oakville Hydro, Oshawa PUC Networks, PowerStream, PUC Distribution, Thunder Bay Hydro, Tillsonburg Hydro, Toronto Hydro, and Veridian Connections (collectively, the Coalition for an Effective Incentive Rate Mechanism; "CEIRM");
- Canadian Manufacturers & Exporters ("CME");
- Canadian Niagara Power Inc. ("Niagara Power");
- Electricity Distributors Association ("EDA");
- Haldimand County Hydro Inc. ("Haldimand Hydro");
- Hydro One Networks Inc. ("Hydro One");
- Hydro Ottawa Limited ("Hydro Ottawa");
- Kenora Hydro Electric Commission Ltd. ("Kenora Hydro");
- PowerStream Inc ("PowerStream");
- The School Energy Coalition ("SEC");
- Toronto Hydro-Electric System Limited ("Toronto Hydro");
- The Vulnerable Energy Consumer Coalition ("VECC"); and
- Whitby Hydro Electric Corporation ("Whitby Hydro").

This document sets out the Board's determination on membership of the three distributor groupings for stretch factor assignments for the 2009 rate year. Written comments received have been considered by the Board in its finalization of the groupings, and are available from the Board's website. This document makes reference to participant comments in summary, but does not contain an exhaustive description of those comments.

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2 The Board's Approach to Assigning Stretch Factors

As noted above, on November 21, 2008, and updated on December 3, 2008, the Board posted sensitivity analysis on the results of OM&A benchmarking evaluations prepared by PEG to divide electricity distributors into three efficiency cohorts supporting 3rd generation IR.

2.1 Summary of the Sensitivity Tests

Board staff asked PEG to undertake a sensitivity analysis of its July 2008 results to address two potential issues: (1) the sensitivity of benchmarking results where a firm may be incorrectly identified as being on the Canadian Shield; and (2) the treatment of charges billed by Hydro One to distributors "embedded" within its network for the use of LV facilities.

In the first test, PEG investigated the sensitivity of its benchmarking results by re-calculating the results of the econometric model[1] with Renfrew Hydro classified as being "off" rather than "on" the Canadian Shield. Staff selected Renfrew Hydro since there was a possibility that it may have been misclassified as serving territory on the Canadian Shield based on the physiographic reference maps PEG had used to make that assignment. Three of the 83 distributors changed cohorts in this test. Renfrew Hydro itself was not impacted.

The second set of sensitivity tests concerned Hydro One's charges to distributors embedded within its service territory for the use of LV facilities. PEG tested two LV charge O&M proxies that were developed by Board staff based on 2007 data provided by Hydro One. The first proxy was equal to 26% of LV charges to each distributor. The

[1] PEG noted that this sensitivity test only affected the econometric benchmarking results because the unit cost benchmarking results do not depend on the Canadian Shield variable.

second proxy, preferred by staff, was equal to 26% of LV charges for each distributor, divided by 2.354[2]. Four of the 83 distributors changed cohorts in the test including the first LV proxy. Two of the 83 distributors changed cohorts in the test including the second LV proxy.

2.2 Issues and Options Raised in Consultation

With the release of the sensitivity analysis, the Board invited stakeholders to comment on what changes, if any, should be considered in the model arising from that analysis.

AMPCO and Hydro One recommended that the Board implement the stretch factor assignments as proposed by Board staff in the November 21, 2008 letter for setting 2009 distribution rates under 3rd Generation IR. While AMPCO observed that the cohort selection criteria could be improved upon, AMPCO expressed confidence that the PEG results appear to hold up well in the sensitivity tests. Hydro One recommended that the Board embark at the earliest opportunity on the next phase in the evolution of its cost comparison process and bring closure to incremental changes to the quality and analysis of OM&A data. Hydro One reasoned that addressing the relative efficiency rankings of distributors solely from the OM&A cost comparison perspective would yield diminishing returns.

CME expressed confidence that PEG's sensitivity analyses show that the efficiency cohorts identified in PEG's July, 2008 update are robust, and CME expressed the view that no changes to the model arising from the sensitivity analysis need to be made.

Many stakeholders proposed additional work be carried out before finalizing the 2009 stretch factor assignments.

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[2] 2.345 is the revenue-to-cost ratio for Hydro One's sub-transmission (i.e., LV) customer class, as filed in Hydro One's 2008 EDR application (EB-2007-0681).

SEC suggested that the Board consider, instead of including a LV cost variable at this time, carrying out work before the next cohort rankings are generated to look at a range of other variables that could have an impact on the results. SEC reasoned that if measurable impacts are evident, then the Board could include them all at once in the next generation benchmarking.

VECC commented that it agrees that embedded distributors have a different cost structure; however, it does not agree with the adjustment proposed by Board staff. Amongst other matters, VECC commented that it would be useful to first ask PEG to confirm whether LV service is a significant explanatory variable in benchmarking OM&A costs. This would help establish, VECC reasoned, whether any efforts should be made to adjust for LV service. At this point VECC believes that it is premature to use the revised efficiency cohort/stretch factor assignments.

CEIRM expressed the view that current benchmarking unfairly and unnecessarily "bonuses" significant numbers of distributors at the expense of the rest; and that the current peer group criteria create distortions that better and more suitable criteria would avoid and/or overcome. CEIRM provided nine recommendations and rationale that it believes will improve the fairness and robustness of the grouping approach. In summary, the CEIRM recommended that:

- to ensure a level playing field (i.e., like-for-like distributor comparison) in benchmarking: (1) correct amounts of LV costs should be added where appropriate, (2) distributor-owned high voltage ("HV") costs should be removed where appropriate, and (3) capital costs should be incorporated as soon as possible;

- to establish meaningful and fewer peer groups that provide a more natural reflection of the differences among distributors and a fairer distribution of superior performers: (4) grouping based on scale should be abandoned, (5) grouping based on undergrounding should be abandoned, and (6) line density should be adopted and Canadian Shield should be retained; and

- to ensure data quality, (7) Canadian Shield assignments should be reviewed and “northern” classifications should be limited to distributors with actual Canadian Shield physiographic characteristics, (8) throughput data used should address all the permutations and system configurations for energy used or generated by wholesale market participants and customers fulfilling government objectives for distributed generation (particularly when it is on the customer’s side of the meter), and (9) additional effort and resources should be devoted to tasks like reviewing data filing instructions and performing data sensitivity tests to ensure the highest level of data quality and rigour.

CEIRM encouraged the Board to implement its recommendations as practicable for 2009, and to begin work immediately toward improving the effectiveness of IR for 2010. PowerStream further recommended that work begin on the other identified issues including those raised in previous comments on the cost comparison work performed by the Board and its consultants for the 2010 rate adjustments. Most distributors that provided their own written comments generally supported the CEIRM recommendations and only offered additional comment on matters of specific interest to themselves.

The EDA characterized benchmarking as an evolutionary process that requires continued efforts to improve as we learn more and obtain better information. For the 2009 rate year, the EDA recommended that the Board address the issues of LV, HV, and Canadian Shield attribution using existing data. For the 2010 rate year, the EDA recommended that the Board start work now on LV and HV refinements (e.g., consideration for distribution structures which are impacted by the supply voltage and drive municipal substation requirements), inclusion of capital costs, review for data inconsistencies, review of peer group composition (e.g., consideration for density and service territory), the treatment of throughput due to embedded wholesale market participants, and a review of the industry labour index. The EDA and Whitby Hydro asked that for 2009 the Board review information provided by Hydro One which identifies a revenue-to-cost ratio of 1.3 for embedded distributors; and that for 2010, the Board review how the pooling of LV costs impacts various embedded distributors.

As a general comment, SEC commented that the underlying benchmarking does not reflect the outcomes of recent distributor rebasings and therefore the stretch factor assignments will not reflect current relative efficiency. SEC expressed the view that it would be worthwhile for the Board to consider, in the next round of analysis, whether some form of more immediate reflection of efficiency could be introduced. Toronto Hydro provided general comment that the cost comparison analysis and its transparency would be substantially aided by an explicit definition of a standard distributor for purposes of cost comparison. Similarly, Niagara Power commented that that Board must examine the comparative capital assets that must be owned and maintained in order to provide electricity distribution in Ontario.

More specifically on the topic of assets owned to carry out the business of distribution, Hydro Ottawa emphasized the point made with respect to HV assets owned by distributors. While more work is required to identify all HV costs, in the interim Hydro Ottawa recommended that costs related to Uniform System of Accounts 5014, 5015 and 5112 should be removed from the total OM&A. In addition, Hydro Ottawa proposed that the cost of LV switchgear assets owned by Hydro Ottawa be removed from the analysis. With regard to the LV issue, Toronto Hydro critiqued the methodology proposed for correcting for LV costs because it believes that the method improperly attributes upstream supply costs to embedded distributors.

With regard to peer group criteria, Niagara noted there are other geographical challenges besides the Canadian Shield, like the extreme weather on the shore of Lake Erie, which should be considered. Kenora Hydro also commented that the current peer groups are geographically unsound and suggested that since government ministries generally recognize that the Province is broken into four regions, the Board should follow a similar system. In its comments, Kenora Hydro disagreed with CEIRM's view that scale should be abandoned as a criterion in peer grouping but suggested that it could be measured differently. Kenora suggested that consideration be given to a form of "critical" size or cost to small utilities measured as an average monthly residential delivery rate benchmark. Haldimand County commented that peer groups need to reflect customer density since it is a significant cost driver and suggested that, measured as "customers per kilometre of line" or "costs per kilometre of line", it will intuitively result in more appropriate comparisons. Whitby Hydro recommended revised peer group analysis for the 2010 rate year and that criteria such as density, service area (square) kilometers, and distribution structures dictated by supply voltage should be considered.

In relation to the Canadian Shield test, Toronto Hydro asked that more detail on the econometric results of the sensitivity analysis be released along with an accompanying narrative on the test from PEG. SEC commented that the Board should confirm the Canadian Shield assignments before finalizing the 2009 ranking. SEC also suggested that before the next cohort rankings are generated, the Board should consider carrying out analysis to determine whether a non-binary variable for the Canadian Shield would produce more robust results. VECC noted in its comments that there is no discussion in either PEG's update or Board staff's overview as to what is the appropriate classification for Renfrew Hydro and expressed the view that Board staff and PEG need to make an explicit determination on this matter.

PowerStream commented generally on the need to build appropriate checks into the benchmarking process. These checks, PowerStream suggested, could evaluate the rankings to ensure the proper factors are being used.   PowerStream reasoned that by improving the data sets and the benchmarking methodology, the Board would not only provide for more appropriate classifications of distributors, but it would also avert other unintended implications when the performance rankings are published.

3 Stretch Factor Assignments for the 2009 Rate Year

It is clear from the comments received that stakeholders continue to hold diverse views on benchmarking.

With the release of the sensitivity analysis, stakeholders were invited to comment on what changes arising from that analysis, if any, the Board should consider making to the model to reduce as much as practicable any potential for misclassification. As noted previously, the sensitivity analysis carried out by PEG had minimal impact on the resultant group memberships. In each test, no more than four out of 83 distributors changed cohorts. Of those that did, only one of those distributors is a 2009 3rd Generation IR filer. With respect to staff's proposal in relation to the treatment of LV charges, which received limited support from stakeholders, only two distributors changed cohorts in the test. This confirms to the Board that the grouping approach is sufficiently robust.

While many stakeholders proposed that further refinements be made for 2009, the Board is concerned that further attempts to make incremental changes may yield diminishing returns. Further, most stakeholders expressed urgency in their comments that the Board should begin work as soon as possible on the development of total cost benchmarking.

The Board believes this to be the sensible approach and advises that it expects to do so over the course of the 3rd Generation IR and will carry out its review in consultation with stakeholders. That review will include matters already identified by stakeholders earlier in this consultation process.

Therefore, the Board has determined that it will not implement changes to the model at this time. The issues raised by stakeholders in this consultation may be considered for future groupings. The Board confirms its determinations made in July 14, 2008 on the model it will use to assign stretch factors to distributors and that each year the cohorts for the entire sector will be re-evaluated. This approach will recognize and reward distributors for efficiency improvements during the term of the IR plan.

For the 2009 rate year, the Board has determined and confirmed the following stretch factor assignments for the distributors that are applying for rates based on the 3rd Generation IR mechanism:

Table 2: 2009 Stretch Factor Assignments

Distributor	Stretch Factor Group	Stretch Factor
1. Atikokan Hydro Inc.	2	0.4%
2. Barrie Hydro Distribution Inc.	1	0.2%
3. Brantford Power Inc.	2	0.4%
4. Chapleau Public Utilities Corporation	3	0.6%
5. Enersource Hydro Mississauga Inc.	2	0.4%
6. Erie Thames Powerlines Corporation	3	0.6%
7. Espanola Regional Hydro Distribution Corporation	2	0.4%
8. Guelph Hydro Electric Systems Inc.	2	0.4%
9. Halton Hills Hydro Inc.	2	0.4%
10. Horizon Utilities Corporation	2	0.4%
11. Hydro 2000 Inc.	1	0.2%
12. Hydro One Networks Inc.	2	0.4%
13. Hydro Ottawa Ltd.	2	0.4%
14. Lakefront Utilities Inc.	2	0.4%
15. Newmarket – Tay Power Distribution Ltd.	2	0.4%
16. Norfolk Power Distribution Inc.	2	0.4%
17. Oshawa PUC Networks Inc.	2	0.4%
18. PUC Distribution Inc.	2	0.4%
19. Rideau St. Lawrence Distribution Inc.	2	0.4%
20. Sioux Lookout Hydro Inc.	2	0.4%
21. Wellington North Power Inc.	2	0.4%

These stretch factor assignments are based on the baseline analysis carried out by PEG and which is summarized in Tables 3, 4, and 5 of PEG's December 3, 2008 Sensitivity Analysis on Efficiency Ranking and Cohorts for the 2009 Rate Year: Update.