January 11, 2010

Ms. Kirsten Walli
Board Secretary
Ontario Energy Board
P.O. Box 2319, Suite 2700
2300 Yonge Street, 26th Floor
Toronto, Ontario M4P 1E4

Re: Proposed Framework for Determining the Direct Benefits Accruing to Customers of a Distributor under Ontario Regulation 330/09
Board File No. EB-2009-0349

Dear Ms. Walli:

Most industrial customers in Ontario are served at distribution voltage: a large fraction by Hydro One. AMPCO's main interest with respect to investments required by the Green Energy and Green Economy Act (GEGEA) is that they should be kept to the minimum level necessary.

While cost allocation is important and should recover the value of benefits where practical, the reality of the "rate protection" mechanism as embodied in Ontario Regulation 330/09 (the "Regulation") is that most of the cost of investments to serve renewable generation will be recovered through energy charges. This approach is inconsistent with principles of cost causality traditionally applied by this Board, and, worse, is grossly inefficient. Using the wholesale market service charges (WMSC) to re-allocate distributor costs onto both wholesale and retail customers reduces transparency and will distort price signals, thus undermining the very customer behaviours promoted by Ontario's energy legislation.

We recognize, however, the political constraints within which the Board must operate. However the Board decides on the appropriate assignment of the cost of these investments between a distributor's customers and Ontario customers at large, the greater responsibility—and one not abrogated by the Regulation—relates to the Board's review and approval of investment plans and projects proposed to meet the intent of the GEGEA. In this regard, and from the perspective of an association of customers struggling to maintain their businesses in Ontario, the scale and scope of the investments being proposed (for example by Hydro One) are astonishing. AMPCO respectfully submits that the Board's primary duty must be to approve only those investments that are necessary, and only to the extent that they are necessary, and then, as a secondary matter, to adjudicate how such costs are to be allocated among customers.

Related to the implementation of the Regulation is the matter of how customer bill impacts should be evaluated in a cost of service hearing, given that substantial costs are being

Association of Major Power Consumers in Ontario
www.ampco.org
372 Bay Street, Suite 1702
Toronto, Ontario M5H 2W9
P. 416-260-0280
F. 416-260-0442

transferred from distributor rates to the WMSC. Given that the Regulation enjoins the recovery of fixed costs from customers as marginal costs, the Board's rate impact assessments related to GEGEA investments need to consider not only which customers' bills will increase by how much, but also the extent to which the inefficient representation of these costs will distort customer behaviours thus generally increasing costs for all customers.

With respect to the scope of the discussion paper itself, this area is one where the existing information and experience is inadequate to support a robust policy based either on principle or analysis. There is also the reality that the use of the WMSC as a rate protection mechanism will interact with other mechanisms such as the Rural and Remote Rate Protection (RPPP) and the benefits identified in this paper. If the basic presumption of policy is that benefits are present at sufficient levels to justify any investment, the Board perhaps should consider conducting some sensitivity analysis to determine whether in fact it is cost-effective to require rigorous benefit evaluation at all. Unless these analyses are going to be instrumental in limiting the scale and scope of investments, such ex post analyses ultimately can only increase costs to customers.

AMPCO is also concerned with the opportunity for unintended incentives that can arise when a distributor has the opportunity to transfer costs to parties other than its own customers. All customers in Ontario should be concerned with the weakening of incentive to control cost when a distributor can transfer most of these costs outside its customer base. An outcome that produced a greater overall cost under the Regulation than would occur without it surely would be considered to be undesirable overall.

The staff discussion paper aims to strike a balance between overall fairness and economic efficiency. AMPCO's specific comments are intended to improve on the staff approach and to suggest areas where further effort may be needed to solidify the analytical foundation underlying the Board's implementation of the policy dictated by the Regulation.

Sincerely yours,

ORIGINAL SIGNED BY

Adam White
President
Association of Major Power Consumers in Ontario

Comments
Board Staff Discussion Paper

Proposed Framework for Determining the Direct Benefits Accruing to Customers of a Distributor under Ontario Regulation 330/09

OEB File: EB-2009-0349

The detailed comments that follow are in two intermingled parts. Comments are provided on the text of the discussion paper itself, organized in the same order as the discussion paper. Also, responses to each of the Board's numbered issues for comment are included in the order as they occur in the discussion paper. For clarity, each of the numbered issues for comment is included in italics before the specific response.

Section 2 Setting the Context

On page 3, the staff paper notes the differences of approach and magnitude of proposed eligible investments for Hydro One, Toronto Hydro and Orangeville Hydro.

The differences among these distributors' proposals are significant, and staff duly notes this fact. As the discussion suggests, much of the difference may be accounted for by the different circumstances of size and service area for these distributors. At the same time, some of the differences in Green Energy Plans may reflect differences in approach or interpretation of each distributor's obligations under the Green Energy and Green Economy Act (GEGEA).

For example, Toronto Hydro has not anticipated any cost to integrate micro-FIT generation into its system, but it is unclear whether Hydro One has anticipated any cost for micro-FIT connections.

The Board may wish to consider whether it should issue specific guidelines about the types or sizes of renewable generation that could be used to justify investments that result in a claim for rate protection.

On page 4, the staff paper makes note that ongoing OM&A costs are not included in the calculation of the amount eligible for provincial recovery. This is the correct approach, as new investments that improve or expand the distribution system to serve renewable generation should result in a general renewal of the distributor's assets. In turn, this should drive a lowering of OM&A costs for the distributor over time, as new assets generally require less maintenance.

Section 3 Direct Benefits

3.2.1 Reduced Network Transmission and Wholesale Market Service Charges (WMSC)

The table on page 7, which illustrates the range of reductions in WMSC costs that result from a relatively (compared to other LDCs) higher share of renewable generation is

illustrative for purposes of identifying the direct benefit, but a reliable method of calculating this benefit will be needed to assure equitable treatment for all customers.

The calculation of direct benefit may require the Board to establish a data gathering process that tracks renewable generation output by distributor per time period (likely monthly, since WMSC also changes constantly).

1) *In addition to the two types of direct benefits identified above (i.e., reduced transmission and WMSC charges, improved capability of the distribution system), should the Board take into account any other direct benefits that accrue to customers of the distributor making the investment?*

   The Board should consider that, when specific new or increased loads are connected to facilities that have been originally built or upgraded in order to serve renewable generation, these specific loads should pay for a portion of the cost of the facilities that will serve them. Such compensation would be in a manner analogous to the treatment of contributed capital, whereby a later load addition must pay for a portion of facilities that were paid for earlier by another load. The difference in this case would be that the payment from the new load would be remitted to all customers in the province via the wholesale market service charge. Put another way, the costs charged to all customers for expansions and REIs ought to be treated as capital contributions by those same customers, with an obligation on the distributor for the same careful bookkeeping that has applied to capital contributions for load connections.

3.3 Quantifying the Direct Benefits

2) *Are there any circumstances under which a distributor should be permitted to deviate from the proposed ex-post approach and use an ex-ante (i.e., forwarding looking forecast) approach?*

   AMPCO prefers an ex post approach to setting rates for cost recovery, as one based on actual facts, which also removes concern about forecast error or bias. The ex ante approach would necessarily depend upon information in a forecast provided by the distributor. As forecasts of all kinds are prone to error and the distributor would be an interested party in the forecast it prepares, this approach should be avoided.

3.3.2 Improved Capability of Distribution System for Load Customers

Per earlier comments, future customers should be responsible for an appropriate portion of costs previously incurred by the distributor in the categories of REIs and expansion to serve renewable generation and from which they derive a direct benefit. General load growth that is facilitated by REI and enabling investments, as well as specific new or increased loads, should not benefit as free riders on these investments.

At the same time, existing loads and customers (as well as existing distribution – connected generators) should not be required to pay for assets that were not needed to serve them.

3) *Are there any potential refinements to the proposed Guiding Principles discussed above?*

The proposal that customers of a distributor would have to pay for unrequested and unneeded improvements in service quality is troubling on three levels.

First, the Board sets standards for service quality on several dimensions, and distributors are held accountable to the Board for meeting these standards. In principle, these standards represent the Board's assessment of what is optimally economic in terms of the value of service quality versus the cost of providing it. To assign additional cost to some customers for additional service quality would thus seem to assign an economically supra-optimal level of service quality on these customers.

Second, the proposal to assign benefits to customers for something they have not requested and may not need is inherently unfair. As the discussion paper notes, approximately 70% of the renewable generation is expected to be located in Hydro One's distribution service territory. Because Hydro one is largely a rural distributor, with the natural consequence of relatively lower delivery service quality, many of its customers who want higher reliability have already solved this problem at their own expense, through measures such as standby generation, uninterruptible power supplies (UPS), etc. Application of the "principle" on service quality could force these customers to pay twice to solve the same problem.

Finally, within the distributor's service territory, customers will likely receive a spectrum of improvements in service quality (including potentially a reduction in service quality in some instances). Yet the cost of the benefit will be assigned equally across the customers of the distributor. Again, this does not seem fair to those who do not receive the benefit of improved service quality, but are served by a distributor with extensive renewable generation.

4) *Should any additional Guiding Principles be considered by the Board?*

Please see above response to issue 2.

<u>Proposed Criteria</u>

The staff paper, in the discussion at the bottom of page 12, assumes, without a factual presentation, that direct benefits will be greater in higher density areas than in other areas. This assumption may be incorrect for several reasons. F or example, higher density areas are more likely to be served by distribution systems that are managed with System Control and Data Acquisition (SCADA) infrastructure, which delivers higher service reliability than exists in lower density areas not equipped with SCADA. It is also common that higher density areas have lower impact from service quality impacts such as tree-caused outages. In high density areas, investments to support renewable generation may not materially improve service quality.

This part of the discussion also appears to make an unsubstantiated leap that assumes high density areas will be host to significant "new" customers (top of page 13). High customer density areas are not necessarily high customer growth areas. In fact, with residential energy intensity dropping as a result of CDM and other factors, many high density areas may be the least likely to benefit from improved system capability.

The assumption that density correlates with benefits needs to be more firmly established.

5) *Are there any potential refinements to the proposed criteria discussed above for the purpose of estimating the direct benefits?*

Portion of Investments not used by Qualifying Generators: The investments that will be made in the REI and expansion categories will be specific investments and thus may be beneficially used by specific customers or groups of customers. While the staff discussion correctly suggests that rate protection for the distributor's customers should be reduced by the benefits realized, the principle should go further to ensure that the distributor has an obligation to recover specific costs where specific customers directly benefit, such as from a RESOP generator or new load customer.

Customer Load Growth: The Board should consider developing a standard estimation approach to establishing the benefit that a distributor may realize where a renewable investment also facilitates load growth. As worded, the distributor may have too much latitude to adjust the estimate of the load growth facilitation benefit.

Asset Condition: The paper suggests the distributor should estimate the remaining useful life of assets that are replaced with REI or expansion investments. This will need to be translated into a useful residual value calculation procedure, which may or may not correspond with the asset's book value. Specific guidelines should be developed so that direct benefits are not understated. For example, in the case of a 15MVA transformer replacement, the pre-existing transformer may be used as a "system spare" that saves the distributor from making a sizeable investment in a new spare. Conversely, the retirement of some pre-existing assets may drive considerable cost for the distributor, in excess of the nominal value of the remaining life of the asset (e.g., if the asset retirement drives a premature environmental remediation cost).

Size of Renewable Energy Generators: The Board may wish to consider whether there is a threshold below which renewable generators could not be used as justification for REI or expansion investments. The micro-fit threshold may work for such a criterion.

Service Quality Improvements: As identified earlier, staff's assumptions about the distribution of benefits as they correspond to customer density should be tested before they are accepted. The aggregate relative value of a marginal reliability improvement for many customers versus a significant improvement for a few customers has not been established. The value of service reliability is not a linear relationship either on frequency or duration.

Moreover, if a distributor is currently meeting the requirements of its license with respect to service quality, it is difficult to see how the value of increase service quality can be established with a degree of precision that would support a detailed calculation of the direct benefit. The calculation of the service quality improvement benefit is the converse of the calculation of the cost of unreliability. There has been a great deal of research in this area for over thirty years, but with no definitive results that could be generally applied across a broad spectrum of distribution customers.

Absent a significant effort to establish fact-based criteria for determining specific service quality improvements and establishing the corresponding benefit, this benefit criterion should be dropped.

Line Losses: Staff's position on line losses is appropriate, at least until such time as the information base may support a calculation. The Board should consider planning to ensure that, as experience is gained and smart meters make better data available, this information is used to support a calculation on the sensitivity of losses to investments in renewable generation.

6) *Are there any other criteria that the Board should potentially take into consideration or should certain criterion listed above not be taken into account? In proposing the addition and/or elimination of certain criteria, a solid business case should be made for the Board to consider the merits.*

   As noted in response to issue 5), the criterion related to service quality improvements appears unworkable. As the staff discussion paper has not itself established a business case for its inclusion, it is impossible to respond with a specific business case for exclusion.

7) *Is a ranking or weighting of the criteria above necessary? If so, please propose an appropriate ranking or weighting, from most to least applicable, and provide a supporting justification.*

   Ranking would be useful and should probably be in order of giving the highest ranking to those direct benefits that can be most readily quantified. This would suggest that the direct benefits realized when a specific new load or non-renewable generator uses assets constructed under the REI or expansion categories should rate the highest priority. Load growth facilitated by renewable investments would come next.

8) *Are there any information limitations that may prevent certain distributors from providing an assessment of any criteria above?*

   No Ontario distributor has good information on the value of service quality improvements beyond the service levels required by the Board.

9) *In the absence of having the best available information possible (e.g., recently completed study), are there any factors above for which a distributor would not be able to provide a reasonable estimate?*

Please see responses to issues 5, 6 and 8 above.

10) *What information should all distributors already have on hand (e.g., for distribution planning) that would allow for a reasonable estimate that is specific to certain areas of a distributor's territory of: (1) load growth; and (2) customer density?*

Distributors should have the basic information needed, but existing system segmentation for purposes of planning to service load may need to be adjusted in some cases when serving renewable generation becomes part of the planning challenge. For example, an expansion investment to serve a group of renewable generators may cross areas of varying density and growth characteristics.

11) *Where provincial ratepayers have provided rate protection and the asset is not ultimately used by the distributor as an eligible investment, Board staff proposed that the amount of rate protection should be reduced accordingly going forward to reflect the use of the investment for other purposes. In such cases, are there any circumstances under which the amount of rate protection provided by provincial ratepayers should not be reduced? If so, please explain.*

It is difficult to foresee such a circumstance. To protect the interest of customers, the Board should set strict requirements for exceptions.

12) *Should the Board consider a certain standardized approach? If so, how should the approach be standardized?*

The staff discussion correctly notes the problem of developing a standardized approach in the absence of experience. If the Board limits the categories of direct benefits to those that are readily quantifiable, then a fair standardized approach should be relatively easy to establish.

13) *Would a certain percentage of expansion investments and a certain percentage of REI investments (using a historical "baseline" specific to each distributor) provide a reasonable estimate on a go forward basis?*

Given the diversity of situations among LDCs and customers in Ontario, a percentage calculation that is equitable may be hard to establish. Moreover, a straight percentage benefit calculation may make it easier for free ridership to occur. Setting a baseline may also be problematic as many distributors do not exhibit long term, stable patterns of growth or investment.

14) *If the Board decided a standardized approach would be appropriate for certain distributors:*

(i)What *timeframe* would be suitable for implementation?

The timeframe will be dependent on the degree of standardization and the clarity of the process (e.g., how does one establish the value of new assets to support growth?). As with many other Board initiatives, using test cases to establish a standard process may be a good and immediate approach.

(ii)What would an appropriate *threshold* be to determine which distributors could proceed under a standardized approach and which distributors should be required to continue under the more rigorous assessment discussed in section 3.3.2.1?

The threshold criterion could be related to the level of the distributor's renewable investments, relative to the distributor's own base of customers, assets or non-renewable revenue requirement (pick one). A threshold in the neighbourhood of, say, $100 of capital investment per customer over the plan period may be a good starting point. Hydro One should certainly qualify, but it may be the only one to do so.

Prepared for AMPCO by:

C. W. (Wayne) Clark, P. Eng
San Zoe Consulting, Inc.