

-Appendix A-

Board's Views on Stakeholder Comments on the *Draft Guide to Total Resource Cost Analysis*

Preamble:

Further to the Board's decision of December 10, 2004 (RP-2004-0203), in the Application by the Coalition of Large Distributors¹ for approval to recover funds to be invested in conservation and demand management (CDM), the Board has developed the Total Resource Cost (TRC) Guide. In the Decision, the Board stated that:

*The methodology with respect to that cost-benefit analysis should be determined in advance, and the Board suggests that a working group be formed with Board Staff and representatives of each of these utilities, with possible involvement from the intervenor community involved in this case. We don't want to face an argument a year from now as to what the methodology should be for this cost-benefit analysis. So in the interim we should work out the methodology, but a year from now, the Board would like to receive from each of these utilities a cost-benefit analysis on the initiatives that have been conducted up until that date.*²

This condition of approval became standard to all approvals of LDC funds for CDM. Overall, the Board approved \$163 million worth of CDM plans to be implemented by the electricity utilities over a three year period ending in September 2007.

Pursuant to that Decision the Board commissioned a consultant to prepare the Draft TRC Guide. The TRC analysis consists of the methodology of cost benefit analysis that will be required by the Board. The Draft Guide was posted on the Board's website on July 6, 2005 and the Board received comments from the stakeholder community on or about July 18, 2005.

The Board thanks all parties for their submissions on the *Total Resource Cost Guide*; stakeholder input was valuable in developing the final version of the Guide. The Guide is designed to be a practical tool for local distribution companies (LDCs) to perform Total Resource Cost (TRC) analysis.

The Board received submissions on the Guide from Appliance Recycling Canada Inc. (ARCI), Building Owners and Managers Association of the GTA (BOMA), Cornerstone Hydro Electric Concepts Association Inc. (CHEC), Electricity Distributors Association (EDA), Enbridge Gas Distribution Inc. (Enbridge), EnerSpectrum Group (EnerSpectrum), Guelph Hydro Electric System Inc. (Guelph Hydro), Hydro One Networks Inc. (Hydro One), Pollution Probe, Total Energy Advice and Management Ltd. (TEAM), Toronto Hydro Corporation (Toronto Hydro) and Vulnerable Energy Consumers' Coalition (VECC).

¹ The six distributors include; Enersource Hydro Mississauga Ltd., Hamilton Hydro Inc., Hydro Ottawa Ltd., PowerStream Inc., Toronto Hydro Electrical System Ltd. and Veridian Connections Ltd.

² RP-2004-0203 Decision on the CDM applications by the Coalition of Large Distributors. December 10, 2005, Paragraph 83.

Submissions were made to the Board on a variety of issues ranging from formatting and clarity in language to more broadly based issues. The Board has incorporated the formatting and clarity changes that were appropriate. The broader issues which are addressed below include the choice of discount rate, the inclusion of environmental externalities, distributor line losses, winter peaking distribution areas, LDC costs for incentives, the attribution of benefits, persistence of measures, custom project free rider rate and assessment requirements and avoided costs.

Discount Rate

Hydro One submitted that the Board may wish to consider the use of a societal discount rate of between 5% and 9%. These values for the societal discount rate were presented in a study by Enbridge during its 1994 rates case, E.B.R.O. 487.

Further, ARCI and Hydro One indicated that the discount rate and the avoided costs values must be treated in either nominal or real terms. Hydro One also submitted a table of avoided costs that had been grossed-up for inflation.

View of the Board

The Board has indicated that the discount rate that distributors should use in performing their calculations will be the incremental after-tax cost of capital. This definition of the discount rate is consistent with the Electricity Distribution System Code. While the Board recognizes that conservation and demand management has many societal benefits, the initiative is also an alternative to distribution system planning. Therefore, the choice of the discount rate is appropriate. Since the discount rate has inflation expectations factored in, the Board has provided a set of avoided costs which have been adjusted for annual inflation of 2.5%.

Environmental Externalities

ARCI submitted that the Board should include, as an avoided cost in the TRC analysis, avoided environmental externalities. ARCI indicated that the California Public Utilities Commission and the Energy Trust of Oregon include the value associated with avoided environmental externalities.

View of the Board

The Board recognizes that the benefits associated with the avoided environmental damage are real. However, it has not been the practice of parties before the Board to include these benefits. If these additional benefits are not included, programs are cost effective on the merits of the energy savings, regardless of the mix of generators in service.

Losses on the Distribution System

ARCI submitted that the Board should gross up the savings values by the average amount of losses at the measure level. Enbridge sought direction from the Board on whether it should apply a factor for losses in the future. EnerSpectrum submitted that the each LDC should use the results of a system analysis to assess the anticipated energy and demand savings on system losses. Hydro One indicated that given the statement in the Draft Guide “LDCs are free to use other testing techniques and incorporate other data where appropriate”, it planned on applying its specific loss factor in specifying savings.

View of the Board

While the Board recognizes that losses are a real part of the electrical distribution system, the variability and makeup of those values creates a significant challenge for the Board in calculating actual losses for each LDC. Further, restricting the cost effectiveness of measures to be assessed based on the end use savings (excluding losses), creates a level comparison of measures across the province.

Winter Peaking LDCs

Several parties made submissions concerning the inclusion of capacity avoided costs only for measures which reduce peak load, typically summer. Hydro One submitted that they would apply the appropriate avoided capacity costs for its distribution areas that are winter peaking, given the flexibility provided by the Guide. Pollution Probe submitted that many north-western Ontario distribution areas are winter peaking and that avoided cost of system capacity should be applied to measures which reduce winter demand.

View of the Board

The Board recognizes that certain distribution areas are winter peaking and in these areas distributors must plan their system for peak loading. Therefore, the Board has made changes to the instructions in the Guide and to the Assumptions and Measures List. Distributors that are winter peaking should apply the distribution capacity avoided cost for measures which reduce winter peak demand. However, in assessing the benefits of winter measures, distributors should not apply the avoided capacity costs for generation or transmission, since measures which reduce winter peak will not reduce those capacity costs.

LDC Costs for incentives

Several parties made submissions concerning the inclusion of LDC costs for incentives. Toronto Hydro indicated that in the case where the distributor purchases the equipment (i.e. load control device) and provides an incentive to customers for participation in the program, the incentive costs are actual and not a transfer between two potential purchasers of the equipment. Guelph Hydro indicated that it was not clear why the incentive cost is not included as a component of the TRC.

View of the Board

The Board recognizes the need to provide distributors some clarity on the issue of LDC costs for incentives. The Board has made changes to the language in the Guide to reflect the fact that incentive costs, while not included in the calculation of TRC, are included in the distributors overall budget for CDM.

Attribution of Benefits

Several parties made submissions concerning the attribution of the benefits of CDM programs. CHEC requested clarification on how distributors should treat interactions between programs where causality between the measures and benefits are not clear. Enbridge submitted that the examples in Cases 1 and 2 do not reflect how the allocation of TRC benefits from various energy forms should be treated. Enbridge submitted that, where an electric LDC partners with a gas LDC in an existing gas LDC program, the allocation of benefits should be determined by a partnership agreement. Guelph Hydro sought clarification on whether they will be able to claim 100% of the benefits of a program being delivered by a group of gas and electric LDCs. Pollution Probe submitted the attribution guidelines in the Draft Guide were contrary to the public interest and the interests of electricity consumers since the LDC would be able to claim the benefits associated with a program delivered primarily by a third party and where participation by the LDC was minimal. VECC submitted that where LDC programs “piggy back” onto the Federal Government’s Energy Star program, the free rider estimates must take into account the impact the Federal initiative will have on its own. Further, VECC submitted the practice of allowing distributors to claim 100% attribution for a CDM program that they jointly market/deliver with non rate regulated third parties is “totally inappropriate” particularly because the calculation of TRC does not call for the inclusion of the third party’s costs. VECC submits that the TRC benefits should be attributed to the LDC after it has been adjusted for free ridership.

View of the Board

In consideration of the submission by CHEC, the Board recognizes that it is impossible to track and measure all of the benefits of CDM programs that are designed as market support and where interactions with other programs occur in the market place. In section 3.2 of the Guide, the Board has provided some methods to assess the

effectiveness of these programs. Simplifying assumptions must be made to manage the evaluation of projects practically.

With respect to Enbridge's submission, the guidelines regarding attribution of benefits are for the purposes of making a claim for lost revenue and/or a shareholder incentive. So long as the costs, lost revenue, and shareholder incentive are recovered from those ratepayers who receive the benefit of the CDM program with no-cross subsidization, parties are free to design partnership arrangements which achieve the greatest benefit. In regard to the issue addressed by Guelph Hydro, the Board feels the issue is addressed appropriately by the Guide. Collectively, the group of gas and electric LDCs will be allowed to claim 100% of the benefits of the program. Individually, each LDC will be allowed to claim the portion of the benefits that is within its service territory and of its energy type. This situation is addressed by Cases 1 and 2 in combination.

With respect to the submission by Pollution Probe and VECC, the Board recognizes there is a potential for LDCs to claim the benefits of a program in which their involvement was minimal. However, this situation would be the exception and the Board supports the development of partnerships with third parties to create efficiencies in the delivery of CDM programs. Further, the Board has the jurisdiction to make adjustments to the incentive awards to the LDCs through its rate cases.

Persistence of Measures

VECC submitted that using a 100% persistence factor will lead to overestimates of benefits since no other adjustments have been made to the measure assumptions.

View of the Board

While persistence is likely not 100% for most measures, for practicality the Board needs to make some simplifying assumptions. The assumption of 100% persistence may be revisited by the Board when better information becomes available.

Custom Project Free Rider Rate and Assessment Requirements

Many parties made submissions concerning the use of 30% as the default free rider rate for custom projects. The EDA submitted that while the Guide gives distributors flexibility to use other testing techniques or data, some distributors are concerned with the use of the default 30% free rider rate during this period of ramping up programs. BOMA submitted that since many custom projects are likely to include measures included in the Assumptions and Measures List, which have prescribed free riders, the default value of 30% appears to be inconsistent. CHEC submitted that the default value appeared high, especially where a program participant had not taken action prior to the distributors' intervention. Hydro One submitted that since the free rider rate was established from a market study conducted by Enbridge Gas Distribution Inc., it accepts the default value, but suggests it be reviewed once reliable data and information from electric utilities became available. Pollution Probe submitted that since the free rider rate is a function

of program design, the Board should examine the program design of each custom project before assigning the free rider rate.

Enbridge submitted that the requirement that the statement “it is expected that each custom project will incorporate a professional engineering assessment of the savings” in the Draft guide may not be practical in all cases and that other methods of assessing benefits are valid. Further, Enbridge submitted that it was not clear if the savings estimates signed off by an engineer would require further scrutiny in the audit. Hydro One submitted that given the audit requirements for custom projects, the Board may wish to stress the need for utilities to factor such costs into their program planning.

View of the Board

The Board recognizes that free ridership is a function of program design, *inter alia*, and for any individual custom project the issue of freerider ship is binary. The participant would either have undertaken the measure without the distributors’ involvement or it would not have (i.e. either a free rider or not). However, studies commissioned by Enbridge Gas Distribution Inc.³ and Union Gas Limited⁴ indicate on average, the level of free ridership (not including spill-over) was 30% or greater. Without better information, the Board will be guided by these values. While the Board acknowledges that setting a default rate is not perfect, if a distributor feels that these values do not accurately reflect their influence on a particular project, the distributor is free to complete a custom project free rider evaluation and file it along with its cost benefit analysis. With respect to the submission by BOMA, the Board is of the view that custom projects are those that involved customized design and engineering, rather than a combination of several measures provided in the Assumptions and Measures List which have pre-assigned savings and cost values. With respect to Pollution Probe’s submission, the Board does not have the resources to complete its own evaluation of each custom project.

With respect to the assessment requirements for custom projects, the Board recognizes that there are other feasible methods to estimate benefits, however, since these projects are likely to be customized solutions which are not presented in the Assumptions and Measures List, it seems practical to require a professional engineering assessment of the savings. Lastly, with respect to Hydro One’s submission, the Board feels that the Guide gives distributors appropriate guidance with respect to the costs for monitoring and evaluation.

Avoided Costs

VECC made submissions concerning the use of avoided costs. VECC submitted that the Guide does not address the issue of uncertainty in the values provided by the Avoided Cost Study. VECC also submitted that Hydro One’s avoided distribution

3 Summit Blue Consulting LLC. (2003) *Assessment of DSM Evaluation Processes for Business Markets Projects and Free Ridership Evaluation: Custom Project Attribution Evaluation Final Report*.

4 Summit Blue Consulting LLC. (2005) *Research to Establish Free Ridership Rates Final Report*

capacity costs are likely to be materially higher than those of other LDCs in the province.

View of the Board

While the Board acknowledges that there are uncertainties in the avoided cost values for energy, generation, transmission and distribution capacity, it is more important to have a set of avoided cost estimates that distributors can use in planning and testing CDM measures. While Hydro One's avoided capacity cost values are likely to be higher than most in the province, it is not likely that the difference between a distributor's actual avoided capacity costs and the deemed avoided capacity will create a material difference in benefit estimates. It is more important to ratepayers that distributors put effective conservation and demand management measures in place immediately, using the best information available, rather than delay for further study. Further, the Board has indicated that where distributors have better information, they are invited to use it as long as they provide supporting evidence to the Board.