January 18, 2010

BY EMAIL & BY COURIER

Ms. Kirsten Walli
Board Secretary
Ontario Energy Board
2300 Yonge St, Suite 2701
Toronto ON M4P 1E4

Dear Ms. Walli:

Board File No. EB-2009-0349
Consultation on Determination of Direct Benefits under Ontario Regulation 330/09
Comments of Energy Probe

Pursuant to correspondence from the Board, dated January 11, 2010, revising the timeline for submissions, Energy Probe Research Foundation (Energy Probe) is hereby providing three hard copies of its Comments on the Staff Discussion Paper in the EB-2009-0349 consultation for the Board's consideration. An electronic copy of this communication in PDF format is being forwarded to your attention.

Should you have any questions or require additional information, please contact me.

Yours truly,

David S. MacIntosh
Case Manager

cc. Peter Faye, Consultant to Energy Probe (By email)

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EB-2009-0349

Ontario Energy Board

Rate Protection

and

the Determination of Direct Benefits

under Ontario Regulation 330/09

COMMENTS OF
ENERGY PROBE RESEARCH FOUNDATION
("ENERGY PROBE")

January 18, 2010

EB-2009-0349

Rate Protection and the Determination of Direct Benefits Under Ontario Regulation 330/09

Comments of Energy Probe Research Foundation

Background

1. By its September 25, 2009 letter to Ontario licensed Electricity Distributors and other Interested Parties, the Ontario Energy Board ("Board") initiated a broad consultation process to determine what constitutes the direct benefits that accrue to the consumer of an electricity distributor as a result of an eligible investment made or planned to be made by the distributor to accommodate a renewable energy generation facility.

2. On December 14, 2009, a Board staff Discussion Paper regarding the determination of such direct benefits was released. The following are the Comments of Energy Probe submitted in response to the Board's invitation.

Section 2 Setting the Context

3. On page 4 of the discussion paper, it is suggested that only "up front OM&A costs" will be eligible for recovery from provincial ratepayers. The rationale for excluding ongoing OM&A costs associated with the generator connection is that s.79.1 of the Act "focuses solely on the initial investment" by the distributor to enable the connection.

4. It is not clear to Energy Probe that s.79.1 of the Act does focus solely on the initial investment. There does not appear to be any wording specifically saying that cost recovery is restricted to initial costs. It is also possible to understand the phrase "for the purpose of connecting or enabling the connection ...." to apply to costs incurred after initial connection to ensure that the connection does not fail.

5. For example, if a distributor does not maintain the equipment that makes connection possible, the equipment could fail and the connection would be lost. In that case, ongoing maintenance costs could be understood to be "enabling" the continued connection of the generator to the distribution system.

Section 3 Direct Benefits

Issue for Comment # 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?

3.2.1 Reduced Network Transmission and WMSC charges

6. Energy Probe agrees with the position taken in the paper that connection of generation within a distribution system will result in reduced transmission and WMSC charges to the distributors ratepayers. That reduction will result in a shortfall in the total revenue collected for both the transmission and WMSC charges. In order to collect the same total revenue, the individual transmission and WMSC tariffs will need to increase. Because the increased tariffs would then be higher than the tariffs used to calculate the direct benefit to the host distributor's ratepayers, the initial direct benefit would be understated.

7. Using the ex-post proposal, this inaccuracy would be corrected at the end of the next annual period assuming that the new tariffs for transmission and WMSC charges would then be in effect and used in the calculation of avoided transmission and WMSC charges. The effect of an understated initial direct benefit might then be confined to the first year of the protection program and, depending on the size of the inaccuracy, may or may not be worth considering.

8. On page 5 the potential upstream benefits of generation connection to distribution systems is discussed. The benefits considered appear to be restricted to avoidance of transmission network investments that might otherwise have been necessary. The rationale for excluding these benefits is that transmission network benefits accrue to all provincial ratepayers.

9. Energy Probe submits that there are potential upstream benefits in many distributor systems that may result from generation connections that do accrue solely to its customers and appear to have been overlooked. For example, the injection of generation at distribution voltage can forestall the need to increase capacity at existing distributor owned transformer stations. Avoiding the capital and OM&A costs of more or larger transformation facilities translates into lower rates for a distributor's ratepayers but does not affect the rates paid by provincial ratepayers.

10. Therefore, it may be advisable to consider the value of such local avoided costs as a direct benefit to a distributor's ratepayers. This category of benefits is different from that described in section 3.2.2 arising from renewable enabling improvements. The benefits there result from enhanced distribution capabilities whereas the benefits proposed here relate to potential avoided costs of system improvements.

3.3 Quantifying the Direct Benefits

Issue for Comment # 2: Are there any circumstances under which a distributor should be permitted to deviate from the proposed ex-post approach and use the ex-ante (i.e. forward looking forecast) approach?

11. Energy Probe agrees with the ex-post approach proposed for calculating the direct benefits associated with reduced network transmission and WMSC charges subject to the comments on how the calculation is done in the previous section. Board staff's rationale that the ex-post method will be more accurate and less administratively burdensome is persuasive. However, because the ex-post approach results in a retroactive collection by the distributor of provincial relief for its ratepayers, there could be circumstances in which a distributor might be allowed to use the ex-ante approach. Situations that could result in financial hardship for a distributor could be mitigated in this way.

12. For example, a distributor having to make significant modifications to its system to accommodate generators could have large demands on capital and OM&A costs as a result. If those forecast costs in a rate application result in rates that trigger the Board's rate mitigation requirements, the distributor's ability to finance them could be adversely impacted.

13. In those circumstances, provincial rate relief might be called upon to provide the required rate mitigation but to do so would mean allowing the distributor to use the ex-ante approach. Energy Probe expects that such circumstances would be rare and could be addressed by the Board on an individual distributor basis if the flexibility to do so is captured in Board policy on the subject.

3.3.2 Improved Capability of Distribution System for Load Customers

3.3.2.1 Proposed Approach

Issue for Comment # 3: Are there any potential refinements to the proposed Guiding Principles discussed above?

Issue for Comment # 4: Should any additional Guiding Principles be considered by the Board?

14. Energy Probe supports the Guiding Principles enumerated in this section for estimating the direct benefits related to improved capability of the distribution system with a few caveats.

15. The second principle on page 11 suggests that distributor "circumstances" should govern the level of detail and analysis required of the distributor to support its estimate of direct benefits. Energy Probe has some reservations about this idea. The term "circumstances" is a little ambiguous. If it means the distributor's resources and capability to perform the analysis, then Energy Probe does not agree that this should be a reason to accept a lower standard of analysis of direct benefits. Provincial ratepayers have a right to expect that a competent analysis has been performed before they are asked to bear some of a distributor's costs. The Board should set the minimum standard for analysis of direct benefits without regard to a distributor's ability to conduct the analysis. Distributors should then be required to develop the necessary resources to meet that standard.

16. The third principle shown at the bottom of page 11 would exclude provincial recovery of eligible investments that are not ultimately used solely by the generation facility. Energy Probe supports this criteria on the basis that new load connections made possible by an eligible investment provide benefits to the distributor in the form of new revenue. This should result in an adjustment to the provincial rate support given to the distributor's customers subject to comments in 17 and 18 below.

Issue for Comment # 5: Are there any potential refinements to the proposed criteria discussed above for the purpose of estimating the direct benefits?

17. The first criteria on page 12 concerns use of eligible investments by other than the qualifying generator(s). New load customers that are added to a feeder after it has been improved by an eligible investment are a complication to the calculation of direct benefits. However, the effect may not be straightforward.

18. All feeders normally have some excess capacity that is built in to anticipate future load growth. Distinguishing between those new customers that could have been served by the feeder in its original condition from those that could only be served if the feeder was improved might be difficult. In the first case, there is no direct benefit to connecting a customer who could have been connected without the feeder improvement and, therefore, more of the eligible investment would receive provincial support. In the second case, connection of a new customer that requires the improvement of the eligible investment would increase the direct benefit and thereby reduce the provincial support.

19. One way of addressing this is to evaluate the existing spare capacity of a feeder at the time the eligible investment is analyzed for a generator connection. Load added after the investment could then be offset against that spare capacity until it was exhausted. Only then should additional load be considered in the direct benefit calculation.

20. The Customer Load Growth criterion on page 13 seeks to address a related complication. Accurately predicting load growth by sub area of a distributor's territory can be a difficult task. Municipal plans set out the areas in which growth is anticipated and will be permitted but the order and timing of growth is affected by many variables one of which is the availability of services like electricity.

21. If one or more feeders is improved through an eligible investment for generator(s), this could change the attractiveness of an area for development. On the one hand, better access to the distribution system would probably improve the prospects of development. On the other, the negative aesthetic associated with large wind farms might discourage some types of development (eg. Residential).

22. Distributor system planning information is helpful to suggest where system improvements might be necessary for load growth but plans change continuously in response to many external variables. Therefore, Energy Probe does not think that using system plans to predict direct benefits would be as useful as it at first appears. However, there may be another way to account for future system improvements that would have been necessary for load growth.

23. Energy Probe suggests that the problem of future use of a feeder might be resolved by designing the ex-post approach to direct benefits appropriately. If distributors are required to reevaluate benefits annually for each eligible investment, then, as new load appears on the feeder, it can be categorized along the lines suggested in 19 above. If it exceeds the original spare capacity, then it is load that would have required an improvement to the feeder for connection. In that case it is a direct benefit and should absorb a share of the eligible investment thereby reducing the provincial rate support in the following year.

24. The direct benefit approach then becomes a dynamic one that is adjusted annually as load growth actually occurs. Although this might seem overly complicated, it could actually be quite simple if a formulaic approach based on available distributor data were developed.

25. The basis of a formulaic approach could be smart meter data. This will be available to distributors by customer. If customers are associated with feeders then aggregate customer use of a feeder can be determined and compared to the use made by a generator. Whether this is done on a kWhr or kW basis is open to debate but the data should be available to support either or both. An algorithm using this data as inputs could then be run annually for each feeder that hosts a generator to divide up the feeder use benefit. Original spare capacity and new load appearing on a feeder could be accounted for annually and the provincial rate support adjusted accordingly.

26. Energy Probe acknowledges that changes in normal open points between feeders to balance system loading may complicate the issue of determining how much of a feeder should be attributed to customer use. However, this condition applies primarily to large urban distributors that may not have much generation connected. If most of the generation is expected to connect to Hydro One's predominantly radial system, the complication of varying feeder open points is much reduced.

27. The Asset Condition criterion can also be complicated. The example of a power transformer replacement is used as an illustration. The conclusion drawn that replacement of a transformer early in its service life would not provide as great a customer benefit as replacement of an aging transformer appears to overlook the residual value of the younger transformer.

28. Many distributors maintain system spare transformers for use when an in service transformer fails. A transformer removed from service as a result of an upgrade for a generator project could be used as a system spare or installed in another station that had a requirement for it. The avoided cost of purchasing a new transformer for these purposes should be accounted for as a direct benefit to customers when a station upgrade is required for a generator connection.

29. The same principle may not apply for line improvement projects because the poles and hardware may not be redeployable as easily as a power transformer. However, the point of the comment is that careful analysis of direct benefits will be necessary to avoid overlooking significant impacts and the Board will need some tests to be assured that the analysis has been thorough.

30. Energy Probe agrees with the analysis provided for the balance of the criteria proposed on pages 14, 15 and 16 has no additional comments to offer on this subject.

Issue for Comment # 6: Are there any other criteria that the Board should potentially take into consideration or should certain criteria listed above not be taken into account?

31. The only additional criterion that should be considered is the residual or redeployment value of replaced assets referred to in comments 27-29 above. To the extent that this can be incorporated into the Asset Condition criterion it may not be necessary to separate it into a separate criterion.

32. The Customer Load Growth criterion may not be successful for the reasons noted in comments 20-22 above. If Energy Probe's suggestion to address this issue in the ex-post analysis of direct benefits (comments 23-26) is workable then the customer load growth criterion might be satisfied by a formulaic approach.

Issue for Comment # 7: Is a ranking or weighting of the criteria necessary?

33. It is not clear to Energy Probe that one or more criteria would always be more significant than others for all projects. Therefore, a mandated ranking or weighting of criteria might not be advisable because it could skew the results of individual project analyses. Rather, a distributor should be free to weight the

criteria according to the characteristics of individual projects with the proviso that its analysis would have to be reasonable and subject to review by the Board.

Issue for Comment # 8: Are there any information limitations that may prevent certain distributors from providing an assessment of any criteria above?

34. Energy Probe believes that all distributors should have information available that permits them to assess the criteria proposed. Distributors, though, are in the best position to comment on this issue.

Issue for Comment # 9: In the absence of having the best available information possible are there any factors above for which a distributor would not be able to provide a reasonable estimate?

35. Same comment as 34 above.

Issue for Comment # 10: What information should all distributors already have on hand 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?

36. Subject to the viability of Energy Probe's comments in 20-26 above, this may be a redundant issue to the extent that it applies to the Customer Load Growth criterion.

Issue for Comment # 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?

37. The possibility exists that a generator for whom a distributor has incurred costs may not ultimately connect to the distribution system or may, once connected, not generate the power initially expected. In that case, the cost of the improvements would be stranded and, according to the principles proposed, could end up being attributed to new load customers and recovered only from the distributor's ratepayers. Some sharing of this risk among provincial ratepayers would seem to be appropriate despite the potential lack of any provincial benefit.

38. In order to discourage risky investments by distributors, any claim for provincial support for an investment that is stranded by the failure of the generator to perform, should be subject to Board review. This would guard against distributors making speculative investments expecting that the provincial support program would mitigate downside risk.

3.3.2.2 Potential Future Option

Issue for Comment # 12: Should the Board consider a certain standardized approach? If so, how should the approach be standardized?

Issue for Comment # 13: Would a certain percentage of expansion investments and a certain percentage of REI investments provide a reasonable estimate on a go forward basis?

Issue for Comment # 14: If the Board decided a standardized approach would be appropriate for certain distributors:

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

39. Energy Probe agrees with Board staff that assessment of these issues is premature in light of the lack practical experience available to distributors and the Board at this point.

40. A standardized approach would be desirable in the long run because it would relieve distributors and the Board from having to deal with each investment on a custom basis. However, until experience is gained, it is impossible to design a standardized approach that could anticipate the complexities that will inevitably arise with any new system. Energy Probe recommends that the Board postpone consideration of issues 12 to 14 for a couple of years at which time they could be revisited to consider if experience suggests a standardized approach is both possible and desirable.

Section 4 Conclusion and Next Steps

41. The formula at the bottom of page 20 shows how aggregate rate protection amounts would be calculated. The formula appears to assume that the service life of distribution system expansions and REIs aligns with that of the generator. Assuming that the input numbers to the calculation in each year are the remaining book values of the expansions and REIs it is clear that at some point those values will be zero when the asset is fully depreciated.

42. It is possible, however, that a generator would still be producing power after the distribution assets have been depreciated to zero. In that case, the distributor's customers would still be accruing benefits from reduced Transmission network and WMSC charges. The aggregate rate protection formula would then yield a negative number implying that the distributor's customers would have to contribute an amount back to the provincial ratepayer. This might have merit on the basis that had those excess benefits been predicted at the outset of provincial support it would have resulted in less support over the years.

43. Energy Probe suggests that this potential issue of "negative provincial support" should be considered by the Board and a policy developed to deal with it.

44. Energy Probe Research Foundation appreciates the opportunity to comment on these most important issues.

ALL OF WHICH IS RESPECTFULLY SUBMITTED

January 18, 2010

Peter Faye

Consultant to

Energy Probe Research Foundation