



POLLUTION PROBE

CLEAN AIR. CLEAN WATER.

July 13, 2005

Mr. John Zynch
Secretary
Ontario Energy Board
2300 Yonge Street, 26th Floor
Toronto M4P 1E4

Dear Mr. Zynch:

Re: Comments on TRC Guide

I am writing to provide you with Pollution Probe's comments with respect to the Ontario Energy Board's draft *Guide To Total Resource Cost Analysis* (July 6, 2005).

It is Pollution Probe's submission that the draft *Guide* contains a number of flaws that need to be corrected. The most serious flaws are described in sections #4, #6 and #7 below.

1. On page 5, the benefit side of the Total Resource Cost (TRC) Test formula is labeled as "LDC avoided costs". The "LDC" qualifier is potentially misleading since the benefit side of the formula includes the total avoided generation, transmission and distribution costs to society which is not necessarily synonymous with an LDC's avoided costs. For example, if a customer purchases her electricity commodity directly from a power generator, the LDC's avoided costs for this customer would be limited to its distribution costs.

2. According to page 7: "Distributors should include the value of avoided capacity costs to those projects which reduce load during system peaks. Since the Ontario load profile is summer peaking, only those measures which reduce load during the summer shall apply the avoided cost of system capacity."

Pollution Probe suspects that the load profile in north-western Ontario is winter peaking. If this is the case, in north-western Ontario, the avoided cost of system capacity should be applied to measures which reduce winter peak day demand.

3. On page 8, Table 1.1, row "a" analyses the benefits of an LDC programme to encourage homeowners to replace an existing refrigerator with a new Energy Star refrigerator. In this example, it is assumed that the homeowner has two fridges, namely,

a conventional fridge that consumes 514 kWh per year and a beer fridge that consumes 1,500 kWh per year. The LDC programme encourages the homeowner to replace one of her existing refrigerators with a new Energy Star model which consumes 440 kWh per year. If the homeowner is rational, she will exchange her beer fridge for a new Energy Star fridge and save 1,060 kWh per year. However, the *Guide* assumes that she will keep her beer fridge and exchange her conventional fridge for the Energy Star model and only save 74 kWh per year. Pollution Probe does not understand why the *Guide* is assuming that the homeowner is irrational.

4. According to page 16 of the draft *Guide*: “The Board advises LDCs that they are allowed to claim 100% of the benefits associated with a CDM program in which they jointly market and deliver the program with a non-rate regulated third party.”

It is Pollution Probe’s submission that this proposal is fundamentally contrary to the public interest and the interests of electricity consumers. For example, let’s assume, that in the absence of any co-marketing by PowerStream, Natural Resources Canada’s Energy Star for New Homes programme will reduce the electricity bills of PowerStream’s customers by \$100 million. Furthermore, let’s assume that if the programme is co-marketed by PowerStream, it will reduce the electricity bills of PowerStream’s customers by \$101 million. In this example, PowerStream’s conservation programme has provided its customers with \$1 million of net benefits. However, under the *Guide*’s proposed rule, PowerStream would be awarded a \$5.05 million profit bonus (\$101 million x 5%) for reducing its customers’ bills by \$1 million.

It is Pollution Probe’s submission that the *Guide*’s rule should be re-written as follows: “The Board advises LDCs that they are allowed to claim 100% of the **incremental** benefits associated with a CDM program in which they jointly market and deliver the program with a non-rate regulated third party.”

In this example, if our submission is accepted, PowerStream’s conservation bonus for co-marketing the Energy Star for New Homes programme would be \$50,000 (\$1 million x 5%).

5. On page 17, Case 2 discusses the allocation of savings when a joint electric and gas utility conservation programme produces electric, gas and water savings. According to the *Guide*: “Other benefits, such as water savings, need to be allocated between the gas and electric LDC partners proportionally based on the dollar value of TRC savings of that program (i.e. where electricity savings represent 60% of the TRC savings of a program, the electric LDC will claim 60% of the water savings).”

Let’s assume that the distribution of the benefits of a joint Toronto Hydro/Enbridge conservation programme are as follows: a) electric 30%; b) gas 45%; and c) water 25%. According to the *Guide*’s wording it would appear that Toronto Hydro and Enbridge get to claim 30% and 45% respectively of the water savings and that the remaining 25% of the water savings are not allocated.

It is Pollution Probe's submission that the *Guide's* rule should be re-written as follows: "Other benefits, such as water savings, need to be allocated between the gas and electric LDC partners proportionally based on the dollar value of **gas and electric** TRC savings of that program (i.e. where electricity savings represent 60% of the **gas and electric** TRC savings of a program, the electric LDC will claim 60% of the water savings)."

6. On page 20, the *Guide* states that the free rider rate for all custom projects will be 30%. It is Pollution Probe's submission that this proposal is fundamentally contrary to the public interest and the interests of electricity consumers since it will not motivate the LDCs to design and implement conservation programmes that will maximize bill savings for their customers. Moreover, in the extreme, it could reward LDCs for implementing conservation programmes that provide zero incremental benefits for their customers.

For example, let's assume two potential custom project conservation programmes. Let's assume that they both would cost the utility \$5 million to implement. Let's assume programme A has a gross TRC benefit of \$100 million and an *actual* free-rider rate of 30%. Therefore, its incremental TRC net benefit is \$70 million [$\$100 \text{ million} \times (1 - 0.3)$] and the LDC shareholder profit bonus is \$3.5 million [$\$70 \text{ million} \times 5\%$].

Let's assume that programme B has a gross TRC benefit of \$125 million and an actual free-rider rate of 50%. Therefore, its *actual* TRC net benefit is \$62.5 million [$\$125 \text{ million} \times (1 - 0.5)$]. However, if the OEB's rules assume that its free-rider rate is only 30%, its net *reported* TRC benefit will be \$87.5 million [$\$125 \text{ million} \times (1 - 0.3)$] and the LDC's conservation bonus will be \$4.375 million [$\$87.5 \text{ million} \times 5\%$].

Therefore, if the OEB assumes that all custom projects have 30% free-rider rates, it will be in the LDCs' financial self-interest to implement programme B despite the fact that its *actual* net benefits are \$7.5 million less than those of programme A [$\$70 \text{ million} - \62.5 million]. In the extreme, the Board's proposal could provide the LDCs with a financial incentive to implement conservation programmes which provide zero incremental benefits to their customers. That is, programmes whose actual free rider rates are 100%.

Therefore to motivate the LDCs to develop and implement conservation programmes which will maximize the net bill reductions for their customers, the Board must use its best estimate of the conservation programmes' actual free-rider rates to calculate the utilities' conservation profit bonuses. Since a conservation programmes' actual free-rider rate will be function of its programme design, the Board must examine a conservation programmes' programme design before determining its free-rider rate.

7. The *Guide* includes an "Assumptions and Measures List" which provides free-rider rates for 102 electricity consuming end-use technologies (e.g., T8 lights). This is totally inappropriate since free-rider rates are a function of programme design, not technologies.

For example, let's assume that a residential electric heat pump costs \$10,000 and that their existing market share is 5%. If a LDC offers a \$100 rebate on the purchase of a heat pump, the free-rider rate will probably be very high (e.g., 90%) since very few people are likely to be motivated to purchase a heat pump in response to a rebate which is only equal to 1% of its purchase price. That is, virtually the only people who will collect the rebate will be people who would have purchased the heat pump without the rebate. However, if an LDC offers a rebate of \$8,000 per heat pump, it is reasonable to assume that the free-rider rate will be very low (e.g., 10%) since the rebate constitutes a very high proportion (80%) of the total cost of the heat pump and since the pre-rebate market share of heat pumps was very low.

In conclusion, Pollution Probe would like to thank the Board for the opportunity to provide it with our comments with respect to the draft *Guide To Total Resource Cost Analysis*.

Yours sincerely,

Jack Gibbons
Director, Energy Programme
Pollution Probe