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BY COURIER (2 COPIES) AND EMAIL

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Dear Ms. Walli:

Re: Pollution Probe – Comments on Board Staff *Discussion Paper* and *Revised Draft DSM Guidelines*
EB-2008-0346 – DSM Guidelines for Natural Gas Distributors

Pursuant to the Board's letter dated January 21, 2011, we are writing to provide the Board with Pollution Probe's submissions regarding the *Staff Discussion Paper on Revised Draft Demand Side Management Guidelines for Natural Gas Utilities* (the "*Discussion Paper*") as well as the *Revised Draft Demand Side Management Guidelines for Natural Gas Utilities* (the "*Revised Draft DSM Guidelines*").

Summary

Pollution Probe's submissions can be summarized as follows:

- With respect to the DSM budget,
    - the "maximization of cost effective natural gas savings" should be added as the primary guideline; and
    - there are a number of problematic assumptions underlying the proposed amounts, so the proposed amounts should be instead the *minimum* DSM budget paths;
- A direction should not be provided requiring that the largest share of the natural gas DSM budget should be for resource acquisition programs instead of market transformation programs, and this guideline should be removed;
- The annual shareholder incentive payment should not be capped at 150%, although amounts above 150% should be at a lower rate to avoid undue rate increases; and
- ATWACC should be used as the discount rate instead of an unspecified social discount rate. Alternatively, if a social discount rate is going to be used, the Treasury Board of

Canada's real social discount rate of 8% should be used, and it should also be applied for distribution system investments.

Detailed submissions on each of these issues are provided below.

DSM Budget

Addition of Primary Guiding Principle for DSM Budget Paths

Pollution Probe submits that the "maximization of cost effective natural gas savings" should be added as the primary guiding principle for DSM budget paths.

Pollution Probe notes that the *Revised Draft DSM Guidelines* provides the following four objectives for the *design of DSM programs and the overall portfolio*:[1]

- Maximization of cost effective natural gas savings;
- Provision of equitable access to DSM programs among and across all rate classes to the extent reasonable, including to low-income customers;
- Prevention of lost opportunities; and
- Pursuit of deep energy savings.

However, upon detailed review, the "maximization of cost effective natural gas savings" principle is not one of the guiding principles that have been used to develop Board Staff's recommended DSM *budget paths* in the *Revised Draft DSM Guidelines*.[2]

Pollution Probe submits that this omission is a fundamental flaw in Board Staff's proposed budget setting process because the "maximization of cost effective natural gas savings" (i.e. reducing customers' bills and making our industries more competitive) is the primary rationale for the natural gas utilities' DSM programs. Pollution Probe thus submits that the "maximization of cost effective natural gas savings" principle should be added and be the primary guideline for establishing the dollar values of the gas utilities' DSM budgets (subject to the constraint that there are no undue rate impacts, which is already a principle). If the Board fails to explicitly include the pursuit of all cost-effective DSM savings as the primary principle for determining the gas utilities' DSM *budget paths*, Pollution Probe submits that Ontario's consumers and businesses will be denied bill savings that they need and deserve to prosper in an increasingly competitive global economy.

Problematic Assumptions Underlie Proposed DSM Budgets, so They Should Be Minimums

Pollution Probe submits that various problematic assumptions underlie the proposed DSM budgets. Accordingly, the proposed budgets should instead be minimums instead of capped maximums.

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[1] *Revised Draft DSM Guidelines*, pp. 3 & 4.
[2] *Revised Draft DSM Guidelines*, p. 27.

For ease of reference, Board Staff's proposed DSM budgets for Enbridge Gas Distribution and Union Gas are set out in the table below. As a result, Board Staff's proposed combined DSM budget for Enbridge and Union in 2014 (i.e. $104 million) will be more than 70% lower than the OPA's forecasted CDM budget in 2010 (i.e. $377.9 million).[3]

Year	2012	2013	2014
Enbridge	$36 million	$47 million	$62 million
Union	$31 million	$36 million	$42 million

According to Board Staff, if its budget proposals are approved, "the year over year average annual funding increase per residential customer would range from about $2 to $3 for Enbridge's residential customers and from $1 to $2 for Union's residential customers."[4] However, the reality is that these very moderate bill increases will be offset many times over by the overall decline in gas bills, particularly in light of falling gas commodity costs. For example, as a recent Enbridge bill insert noted, the gas bill for a typical residential customer will fall in 2011 by approximately $60.[5]

In other words, larger DSM budgets to conduct cost-effective DSM provides Ontario with additional bill savings and a more competitive economy without undue rate impacts. However, Board Staff is instead proposing to cap the budgets at the amounts noted above.

Upon further examination, Pollution Probe submits that Board Staff's DSM budget proposals appear to be artificially low as they are based on the following problematic assumptions:

1. Ontario's gas utilities are running out of low-cost or "shallow" DSM opportunities (e.g. showerheads); and
2. The pursuit of higher cost or "deep" DSM measures (e.g. better thermal insulation for homes) will lead to undue intra-class cross-subsidization.

However, Pollution Probe submits that many low cost measures actually still remain, and the pursuit of "deep" DSM actually does not lead to increased intra-class cross-subsidization if it is pursued properly. These problematic assumptions by Board Staff are explored below in further detail.

Many Low Cost Measures Actually Still Remain

Specifically, according to Board Staff's *Discussion Paper*:[6]

> … there is some evidence that the potential to roll out "shallow" measures has already been partly tapped. For instance, Enbridge noted in its 2011 DSM plan application that:

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[3] EB-2010-0279, Exhibit I, Tab 4, Schedule 7, page 1.
[4] *Revised Draft DSM Guidelines*, p. 51.
[5] *New Rate Information January 2011 Rate 1*, which states that "For a typical residential customer, the changes will result in a decrease of approximately $60 annually...".
[6] *Discussion Paper*, p.41.

> … many traditional gas utility DSM programs have reached, or are close to maturity (e.g., high efficiency furnaces, programmable thermostats, low-flow showerheads), and the pressure to maximize TRC with a limited budget does not leave room for many new or emerging measures which are typically low in TRC value.

However, a report by Marbek Resource Consultants for Enbridge reveals that there are in fact still many untapped and low cost DSM opportunities in its franchise areas.

Specifically, Marbek identified for the residential sector:[7]

- 12 measures with payback periods of less than 1 year;
- 6 measures with payback periods of between 1 and 2 years;
- 8 measures with payback periods between 2 and 3 years;
- 5 measures with payback periods of between 3 and 4 years;
- 6 measures with payback periods of between 4 and 5 years;
- 3 measures with payback periods of between 5 and 6 years;
- 3 measures with payback periods of between 6 and 7 years; and
- 4 measures with payback periods of between 7 and 8 years (e.g. ceiling insulation and super high-performance windows).

In the commercial sector, Marbek identified:[8]

- 6 measures with payback periods of less than 1 year;
- 5 measures with payback periods of between 1 and 2 years;
- 7 measures with payback periods of between 2 and 3 years;
- 8 measures with payback periods of between 3 and 4 years;
- 2 measures with payback periods of between 4 and 5 years;
- 4 measures with payback periods of between 5 and 6 years; and
- 3 measures with payback periods of between 7 and 8 years.

In the industrial sector, Marbek identified: [9]

- 2 measures with a payback period of less than 1 year;
- 8 measures with payback periods of between 1 and 2 years;
- 8 measures with payback periods of between 2 and 3 years;
- 3 measures with payback periods of between 3 and 4 years;
- 2 measures with payback periods of between 4 and 5 years;
- 1 measure with a payback period of between 5 and 6 years; and
- 3 measures with payback periods of between 6 and 7 years.

According to Marbek, the implementation of all of these cost-effective DSM measures in Enbridge's franchise areas would reduce its total natural gas volumes by 26% by 2017.[10] Thus,

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[7] Marbek Resource Consultants Ltd., *Natural Gas Energy Efficiency Potential: Update 2008: Residential, Commercial and Industrial Sectors Synthesis Report*, (September 2009), pp. 21, 22.
[8] Ibid., p. 40.
[9] Ibid., p. 60.

contrary to Board Staff's assumption in the *Discussion Paper*, many low cost or "shallow" DSM opportunities still remain to be taken advantage of by natural gas utilities.

No Increased Intra-Class Cross-Subsidization for "Deep" DSM if Pursued Properly

According to Board Staff in the *Discussion Paper*, "*everything else being the same,* increasing the focus on deep measures would imply that fewer participants can be reached and that the cost per participant would be larger on average; a result that would increase intra-class subsidization [emphasis added]."[11]

Board Staff is correct that, *everything else being the same,* increased focus on "deep" measures will lead to increased intra-class cross-subsidization. However, Pollution Probe submits that there is no reason why an increased focus on "deep" measures needs to be or should be combined with a business-as-usual approach to DSM.

For example, a major market barrier to the implementation of "deep" measures is their relatively higher up-front capital cost. If the gas utilities attempt to remove this barrier by simply providing these measures to a relatively small number of lucky program participants for free, then there will be undue intra-class subsidization. On the other hand, if the gas utilities remove the up-front capital cost barrier by providing *on-bill financing or an appliance and equipment rental program* for these measures, the pursuit of such "deep" measures will not lead to an increase in intra-class cross-subsidization.

Pollution Probe thus submits that Board Staff is incorrect to simply assume that an increase in the gas utilities' budgets *must* lead to an increase in intra-class cross-subsidization. Instead, new approaches could and should be used to avoid such increased intra-class cross-subsidizations.

Conclusions re: DSM Budget

In light of all of the above, Pollution Probe submits that Board Staff's proposal to cap Enbridge's and Union's DSM budgets is arbitrary and contrary to the public interest because:

1. It needlessly restricts the level of bill savings that Enbridge and Union will be able to deliver to their customers; and

2. Board Staff's rationales for its proposed arbitrary budget caps appear to be based on false information and assumptions as well as incorrect reasoning.

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[10] Ibid., p. 10 (i.e. total annual natural gas consumption: economic potential in 2017 of 9,093 million m^3/yr versus reference case in 2017 of 12,280 million m^3/yr).
[11] *Discussion Paper*, p.40

Recommendations re: DSM Budget

Pollution Probe thus submits that the Board Staff's proposed DSM budgets should instead be the *Guidelines'* recommended *minimum* DSM budgets for Enbridge and Union. Enbridge and Union should also be encouraged to request Board approval for higher DSM budgets that will deliver additional cost-effective savings. However, such request should be subject to the constraints that they must not lead to undue rate increases or undue levels of intra-class cross-subsidization.

In light of all of the above, Pollution Probe also specifically submits that the following amendments should be made to page 50 of the *Revised Draft DSM Guidelines*:

1. The first sentence in the third paragraph be revised to include "minimum" as follows: "The recommended *minimum* natural gas DSM budget paths for Enbridge and Union are outlined in Table 1 below."; and

2. The fourth paragraph be revised to include the additional guiding principle as follows: "The recommended DSM budget paths have been informed by the following *six* guiding principles:
   a) *Maximization of cost effective natural gas savings*;
   b) Supporting an increase emphasis on deep measures;
   c) Ensuring an equitable access to DSM programs among and across all rate classes to the extent reasonable, including low-income customers;
   d) Increasing coordination and integration of certain natural gas DSM programs with electricity CDM programs;
   e) Ensuring no undue rate impacts; and
   f) Ensuring no undue level of cross-subsidization within and across rate classes."

Direction Should Not Be Provided Requiring More Spending on Resource Acquisition Programs Relative to Market Transformation Programs

Pollution Probe submits that a directive should not be provided that requires the largest share of DSM budgets to be for resource acquisition programs instead of market transformation programs.

According to page 28 of the *Revised Draft DSM Guidelines,* the largest share of the gas utilities' DSM budgets should be for resource acquisition programs. However, this draft directive appears to be based on the following problematic assumptions:

1. Market transformation programs are an "outdated" concept.[12]
2. "It can be rather difficult to provide definitive evidence that market transformation programs are responsible for the reported results."[13]
3. "Staff is of the view that DSM activities funded through regulated rates should be limited to niches within the realm of market transformation programs where competitive forces are not expected to yield the results sought or not within an acceptable timeline."[14]

[12] *Discussion Paper*, p. 54.
[13] *Discussion Paper*, p. 54.

Pollution Probe's disagrees with each of these problematic assumptions and responds as follows.

First, Pollution Probe is not aware of any evidence to support the claim that market transformation programs are an "outdated" concept. As Board Staff notes, "market transformation programs are focused on facilitating fundamental changes that lead to greater market shares of energy-efficient products and services, and on influencing consumer behavior and attitudes that support reduction in natural gas consumption."[15] Pollution Probe submits that fundamentally changing the energy market to make it more energy efficient is actually what DSM programs should be all about. There is thus no reason why market transformation programs should be considered "outdated" as long as they are still effective.

As a result, Pollution Probe thus strongly agrees with Board Staff that the evaluation of the effectiveness for market transformation programs should be outcome-based (e.g. selected and designed to achieve measurable impacts on the market) as opposed to input-based (e.g. simply delivering a given number of workshops).[16]

Second, while it is difficult to provide *definitive* evidence about the *precise* impact of market transformation programs, Pollution Probe submits that this is actually equally true and applicable with respect to resource acquisition programs. This common reality should not therefore provide a justification for directing utilities to focus on resource acquisition programs at the expense of market transformation programs when they both face the same evidentiary issues regarding their respective impacts.

Third, Pollution Probe agrees that the utilities should only fund market transformation programs when "competitive forces are not expected to yield the results sought or not within an acceptable timeline." However, this caveat is not unique to market transformation programs, and Pollution Probe believes that this caveat is and should be equally applicable to a utility's funding of resource acquisition programs.

Recommendation

In light of all of the above, Pollution Probe submits no direction should be provided required that the largest share of DSM budgets should be used for resource acquisition programs instead of market transformation programs. Accordingly, the statement on page 28 of the *Revised Draft DSM Guidelines* that resource acquisition programs "should maintain the largest share of the natural gas DSM budget" should be deleted.

[14] *Discussion Paper*, p. 54.
[15] *Discussion Paper*, p. 54.
[16] *Discussion Paper*, p. 55.

Shareholder Incentive Payments Should Not Be Capped

Pollution Probe submits that the annual shareholder incentive payments should not be capped at 150%, although payments above this amount should be at a lower rate to avoid undue rate impacts.

It is well known that aligning the financial-self interests of the utilities' customers and shareholders is a key feature of smart public utility regulation. In the context of DSM, this principle entails that it should be in the utilities' self interest to pursue all DSM opportunities that can cost-effectively reduce their customers' natural gas bills. Pollution Probe thus strongly supports the *Revised Draft DSM Guidelines* finding that the annual shareholder incentive payment targets should increase in direct proportion to Board-approved increases in the utilities' DSM budgets.

However, Pollution Probe does not support the *Revised Draft DSM Guidelines*' proposal to cap the annual incentive payment at a "scorecard weighted score of 150%".[17] In this context, it is important to note that according to footnote 27 of the *Revised Draft DSM Guidelines*, a utility could hit its 150% scorecard cap when its actual gas volume savings are only 17% greater than its targeted level.[18] The proposed cap is thus unnecessarily arbitrary, and it eliminates the utilities' main incentive to achieve all the cost-effective DSM savings that they possibly can.

Recommendation

Pollution Probe thus submits that the first sentence on page 35 of the *Revised Draft DSM Guidelines* should be revised as follows in order to remove the cap but allow a smaller incentive payment when a utility exceeds 150%:

> *While the targeted* incentive amount should be capped at the scorecard weighted score of 150%, *the utilities should also receive incentives for cost-effectively exceeding their 150% targets, albeit at a lower rate in order to avoid undue rate increases.*

ATWACC Should Be Used As Discount Rate Instead of Social Discount Rate

Pollution Probe submits that ATWACC should be used as the appropriate discount rate for DSM programs instead of an unspecified social discount rate. However, if a social discount rate is going to be used instead, the Treasury Board of Canada's real social discount rate should be used, and it should also be applied for distribution system investments.

At the present, Enbridge and Union use their after-tax weighted average cost of capital ("ATWACC") as their discount rates for their distribution system investments and DSM programs. For reference, Enbridge's and Union's ATWACC are virtually identical (i.e. 7.6% and 7.9% respectively).

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[17] *Revised Draft DSM Guidelines*, p. 35.
[18] *Revised Draft DSM Guidelines*, p. 34.

However, the *Revised Draft DSM Guidelines* are instead recommending that the utilities should substitute an unspecified social discount for the existing ATWACC discount rates. Pollution Probe submits that this proposal is perplexing because the purpose of social discount rates is to evaluate the costs and benefits of *government* investment projects. This is because a government's financial cost of capital (e.g. the interest rate on long-term government bonds) is less than the social opportunity cost of capital (e.g. the value of the private sector investment spending that is displaced by government borrowing). However, social discount rates are not used for *private-sector* corporations such as Enbridge and Union because their ATWACCs equals the risk-adjusted values of the alternative private sector investment that they are displacing.

Pollution Probe thus submits that the *Revised Draft DSM Guidelines* should be amended to require the gas utilities to continue to use their ATWACCs as their discount rates. However, if the Board wishes to mandate a social discount rate, Pollution Probe alternatively submits that the Board should adopt the Treasury Board of Canada's real social discount rate of 8% since this reflects the expert opinions of the best professionals on this issue. In addition, if the Board directs the utilities to use a social discount rate to evaluate DSM programs then, it should also direct the utilities to use the same social discount rate to evaluate their distribution system investments.

Conclusion

We trust that these detailed submissions are of assistance, and please do not hesitate to contact the undersigned if you wish to discuss any of this further.

Yours truly,

Basil Alexander

BA/ba