

31 May 2018

BY EMAIL AND RESS

Ms. Kirsten Walli
Board Secretary
Ontario Energy Board

Dear Ms. Walli:

**Re: EB-2017-0224 – Enbridge Gas Distribution Inc.
EB-2017-0255 – Union Gas Limited
2018 Cap and Trade Compliance Plans**

Attached please find GEC's Argument in these matters.

Sincerely,

A handwritten signature in black ink, appearing to read 'David Poch', with a stylized flourish at the end.

David Poch

cc: All parties

ONTARIO ENERGY BOARD

EB-2017-0224

EB-2017-0255

EB-2017-0275

IN THE MATTER OF the *Ontario Energy Board Act*, 1998, S.
O. 1998, c. 15, Schedule B;

AND IN THE MATTER OF applications for approval of the cost
consequences of cap and trade compliance plans

Argument of the Green Energy Coalition

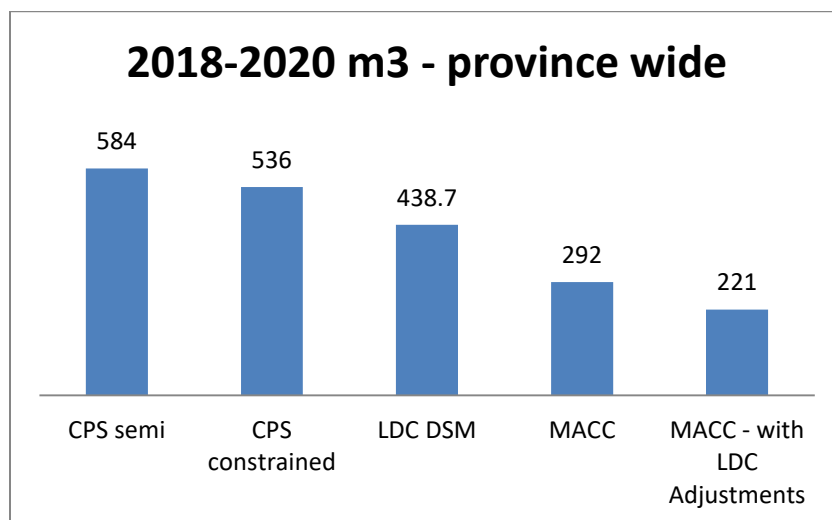
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Executive Summary¹

As the Conservation Potential Study (CPS) and the evidence provided by Mr. Neme in his report and testimony makes clear, there is an abundance of cost effective incremental ratepayer efficiency available whether screened by the Utility Cost Test (UCT or PACT) under the Cap and Trade Framework or the Total Resource Cost Test (TRC or TRC+) under the DSM framework. The companies contend that this is not the case based solely upon their application of the Marginal Abatement Costs Curve (the MACC). However, the companies failed to properly interpret the MACC, failed to acknowledge its limitations, and failed to properly consider any of the other available information – despite the Board’s clear direction that, while it should be a primary consideration, it should not be an exclusive consideration. Those failures are an unacceptable omission in the context of a one year C&T compliance plan that will cost ratepayers roughly two thirds of a billion dollars in 2018.

The disparity between the low MACC results and the levels in the CPS and the utilities own DSM plans would have been hard to ignore:



However, faced with counterintuitive MACC results for DSM, the utilities scrupulously avoided informing themselves about the CPS and MACC methodologies and limitations. Instead the companies unquestioningly embraced the MACC’s ‘business as usual’ scenario. To add insult to injury the companies then deviate from the MACC to discount DSM further by double counting free riders and by ignoring the MACC curve result for RNG.

¹ GEC member groups have over 90,000 supporters, with over 30,000 residing in Ontario. GEC’s Submissions are limited to Issue 1.4 and pertain to Enbridge and Union. GEC has not participated in the review of the EPCOR Plan.

The companies offered further evidence and arguments that were no less flawed.

- They misrepresented the cost of DSM carbon abatement by ignoring saved gas costs.
- They suggested that incremental DSM would be risky, but the evidence is clear that DSM carries low performance risk, lowers ratepayer exposure to gas and carbon price risks for decades, and that any variation from forecast can be easily managed by carbon abatement instrument purchase flexibilities.
- The companies repeatedly claim that government programs funded under the Climate Change Action Plan (CCAP) would dramatically reduce available efficiency program opportunities, but a review of the CCAP proposals demonstrated that it barely touches the C&I markets where DSM has the best bang for the buck.
- The companies also raised a concern about incremental DSM rate impacts for non-DSM participants but ignored the fact that the alternative of allowance purchases would fund government programs that would similarly advantage program participants but be funded by all ratepayers, or worse, would be funded by gas ratepayers but only benefit other fuel users. Further, neither company demonstrated that there would in fact be any adverse net rate impacts on non-participants from incremental DSM after consideration of distribution system savings and savings from gas commodity and abatement instrument price suppression.
- Finally, both companies argue that the right way to consider DSM is under the DSM Framework but neither company has sought incremental C&T driven conservation in their mid-term DSM filings, nor sought relief from the rate impact cap which would preclude further spending under that framework.

The inclusion of no incremental ratepayer funded energy efficiency in the utility compliance plans results in increased costs to ratepayers and lost efficiency opportunities that in some cases will persist for decades. GEC submits that the Board should not allow the utilities to thwart ratepayer access to the more cost-effective compliance alternative. The companies should be required to resubmit their customer abatement plans (and correct this omission going forward) or amend their mid-term DSM framework review filings accordingly.

1. Introduction - A Failure to Optimize

As set out below, GEC submits that by their inadequate consideration of customer abatement both Enbridge and Union have failed to optimize their 2018 C&T compliance plans in accordance with the Board's C&T Framework and as encouraged by the Board in its 2017 Decision. The companies have been prepared to creatively deviate from the framework and the MACC where it serves their corporate agenda, but have engaged in a fundamentalist form of framework orthodoxy, a willful blindness, and applied indefensible logic, to avoid sound consideration of customer abatement via increased ratepayer funded efficiency.

Faced with counterintuitive MACC results for DSM, the utilities scrupulously avoided informing themselves about the CPS and MACC methodologies and limitations. Instead the companies unquestioningly embraced the MACC's 'business as usual' scenario and then, deviating from their otherwise strict adherence to the Framework and MACC, discounted it further based on a poorly informed and demonstrably false assumption about the methodology of the CPS. The companies treated the MACC as if it must be the sole consideration despite the Board's clear direction that, while it should be a primary consideration, it should not be an exclusive consideration.

The initial improper discounting of the MACC by double counting free ridership and the further misrepresentative comparisons of the MACC to their existing DSM targets (discussed in sections 2 and 4 of this submission) account for the largest discrepancies in the company analyses. However, the companies then suggested that even if their (flawed) analyses were ignored, because the MACC shows less potential than they currently achieve with DSM the issue is somehow moot. As we will discuss below, this is simply incorrect, premised as it is on three artificial constraints, and buttressed by misrepresentations of the risks of DSM and of its impacts on non-participants:

The companies' three artificial constraints are:

- that the Business as Usual approach in the MACC must be strictly adhered to and, despite acknowledged perplexity about the MACC's low results, other information (like the CPS) must be ignored (addressed below in section 3);
- that a comparison to the MACC at an aggregated measure level is sufficient to conclude there are no opportunities (ignoring cost effective opportunities within the aggregated bundles), (addressed below in section 5); and,

- that the DSM Framework, which precludes more ratepayer spending before 2021, is the only appropriate venue for consideration of more DSM even though the DSM framework uses differing cost effectiveness criteria and is constrained by the DSM rate impact cap (addressed below in section 9).

The companies' misplaced assumptions about risk include:

- that government programs (CCAP) may dramatically reduce savings available for DSM even though the CCAP has little or no presence in the most promising DSM markets (addressed below in section 6); and,
- that the performance risk of incremental DSM could lead to added compliance costs even though the companies have flexibility to adjust instrument purchases and the clear evidence of low risk incremental DSM that can reduce gas and carbon price risks (addressed below in section 7);

The companies exaggerated concern about non-participant rate impacts includes:

- a failure to recognize that the purchase of allowances has similar or more widespread non-participant rate impacts;
- a failure to acknowledge the cost reductions that DSM brings to all ratepayers over time (both discussed below in section 8); and
- a mistaken assumption that DSM rate impacts would add to rather than substitute for allowance purchase rate impacts.

Even if the approach of the companies is excused as an honest, though poorly executed attempt to follow the framework, the evidence makes clear that there are major opportunities to save customers money and move toward sustainability, opportunities that are needlessly being lost. In the final section of these submissions we propose options to mitigate this unfortunate outcome.

2. Misunderstanding of the CPS and MACC

The story of zero customer efficiency abatement begins with a mistaken view of the Conservation Potential Study results (and thus the MACC based on the CPS) as being gross savings not adjusted for free ridership. Enbridge maintained that position throughout the proceeding. Union, in its prefilled evidence stated unequivocally that “the opportunity

identified in the MACC is in gross savings”.² However, once Board Staff pointed out that the MACC is based on the CPS and that the CPS accounted for naturally occurring conservation, Union softened its position, and responded that it understood that the studies “take into account some natural conservation”.³ Mr. Neme’s oral evidence makes clear that both companies are simply mistaken.⁴

Mr. Johnson, testifying for Enbridge offered both CPS footnote 34, taken out of context, and a mistaken view of the definition of naturally occurring conservation to defend the company’s position. He offered the example of furnaces moving from 80% average efficiency to 95% suggesting that only the difference between 80% and the new regulated standard of 90% was ‘natural’. As Mr. Neme clarified, CPS footnote 34 referred to the quite appropriate exclusion of free riders when using the TRC to identify measures to be considered for cost effectiveness, but did not apply to the CPS’s use of the TRC to determine the adoption rate and achievable potential (where clearly, free ridership is relevant and is affected by program design). Mr. Neme, who was on the advisory panel for the development of the CPS, went on to note that the CPS fully accounted for free ridership. He confirmed this by referring to the actual spreadsheets that had been provided to him by ICF, the CPS authors. For the particular furnace example raised by Mr. Johnson, those CPS spreadsheets show not only that the baseline of a 90% efficient furnace was used to estimate savings potential, but also that a portion of customers were assumed to upgrade from a 90% to a 95% efficiency furnace without a DSM program, with the savings from those “free rider” customers excluded from the CPS savings potential. In other words, the CPS deducted all potential free riders, not just some subset.

Both utilities applied the free rider rates they estimate are experienced in their current DSM portfolios to the MACC based on their misinterpretation of the CPS. In the case of industrial savings, where much potential remains, Union and Enbridge discounted the potential by the free rider rate for their current industrial programs: i.e. by 54% and 50%, respectively.

Union defended the double counting of free ridership as a proxy for the impact of government programs, but acknowledged that the utilities’ existing free rider rates bear no connection to the degree of government activity.⁵ Mr. Neme confirmed that there is no logic whatsoever to assuming that government program participation (and thus reduced potential for utility programs) is related in any way to current utility program free ridership.⁶

² Ex. 3, Tab 4, Appendix A at page 4, line 16, and V.4, p.29, l.24-26

³ Ex. B.Staff.30

⁴ V. 4, p. 69 *et seq*

⁵ V. 2, pp. 137, l. 15 & 174-175

⁶ V. 4, p. 93

Both companies did raise the risk of the Climate Change Action Plan as justification for reducing the potential savings found in the CPS and MACC, but as discussed below, they failed to analyse that issue and the information available indicates that they greatly exaggerated that concern.

Backing out the mistaken double counting of free-ridership (and the company's mistaken inclusion of some capped customers in its comparisons – discussed below), Mr. Neme found Enbridge's planned DSM savings are 23% higher than the MACC rather than the 83% Enbridge claimed.⁷ Perhaps more importantly, he noted that the CPS found 50% more cost-effective DSM beyond Enbridge's current targets in the scenario where budget is constrained to current levels.⁸ For Union, Mr. Neme observed that the CPS constrained scenario found 25% more cost effective DSM than Union currently targets.⁹ These figures rise to 80% more for Union and 132% more for Enbridge without any budget constraints – all TRC cost-effective.

The companies then suggested that even if their view of free ridership was ignored, the MACC shows less potential than they currently achieve with DSM so the issue is somehow moot. As we will discuss below, this is simply incorrect.

3. Willfully Blind Reliance on the MACC, Despite its Limitations



At the heart of the utilities' case for zero ratepayer funded, C&T driven, energy efficiency is their argument that they simply followed the MACC as the Board ordered. They point to the Board's framework and correspondence identifying the MACC as the Board's choice as the principal tool for comparing compliance options. Accordingly, it is appropriate to parse the Board's guidance in that regard and place it in context.

Section 5.2.4 of the Board's Framework Report includes:

The OEB has determined that it will develop a province-wide, generic MACC for the Utilities to use as an input into the development of their Compliance Plans and as a key input to the OEB's assessment of the cost consequences of the Plans...

⁷ Ex. L, pp. 15

⁸ Ex. L, p. 16

⁹ Ex. L, p. 21

The OEB understands that a Utility may choose to develop its own, company-specific MACC to inform the development of its Compliance Plan however, the OEB will rely on the OEB MACC as its principal tool for assessing Utilities' selection of compliance options and resulting costs consequences. **(emphasis added)**

When questioned on this, Union's Ms. Flaman agreed that the MACC was one, not the only basis for comparison of compliance options:¹⁰

"The MACC provides a basis for comparison of the relative cost-effectiveness of a range of GHG abatement activities."

It doesn't say the MACC is the only basis or is the basis, it says it is a basis; is that fair to say?

MS. FLAMAN: I would say that's fair to say.

Nevertheless, Ms. Flaman later responded that Union was "precluded" from looking beyond the MACC.¹¹ Mr. Ginis subsequently clarified that Union was not precluded from using other tools but felt that not using the MACC would not be compliant with the framework.¹²

In GEC's submission, it is clear that while the Board wanted a consistent basis for comparison of options to be utilized by the various regulated entities, it did not preclude consideration of other information, indeed it fully expected that the utilities would want to consider other information. The companies' position that by using the MACC, and the MACC alone they were squarely responding to the Board's direction, ignores the Board's explicit recognition that other analysis may be employed in addition to the MACC and this led to the untenable result of the MACC being exclusively utilized despite the obvious problems with its results, which we discuss, below. (Though we hasten to add that the companies somehow felt free to discount the MACC for illusory free ridership when it helped their case.) Further, it is important to recognize that the MACC was not extant when the Board indicated its preference, so any limitation in this first version of the MACC would not have been apparent to the Board.

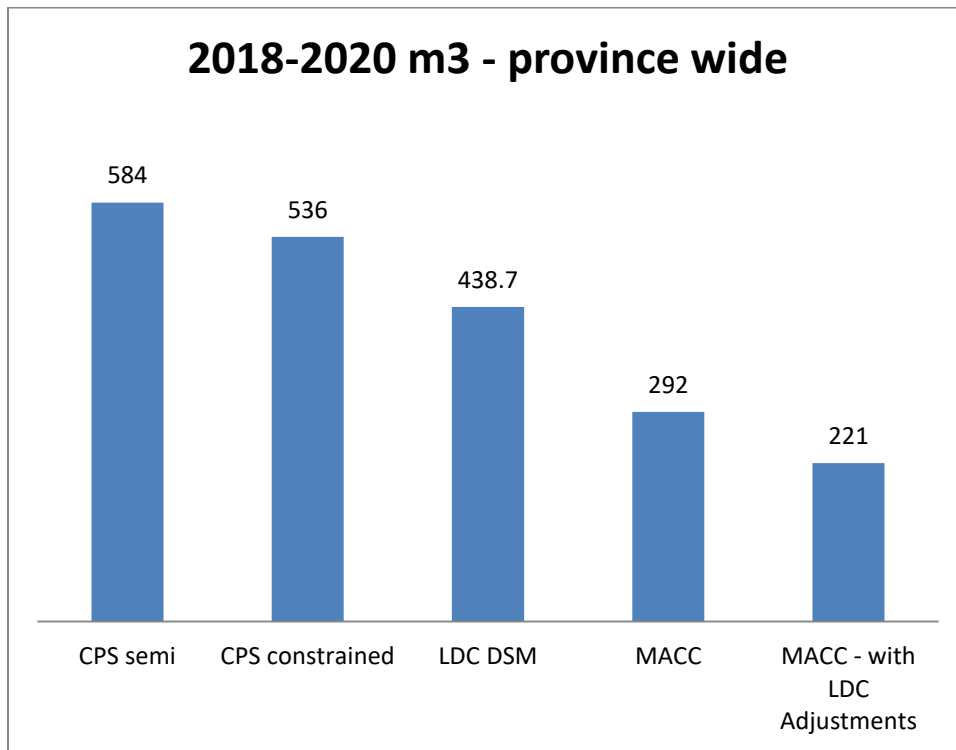
¹⁰ V.2, p.72

¹¹ V.2, p.75

¹² V. 2, p.77

When the MACC was subsequently published it contained the counterintuitive result of achievable savings at the mid-LTCPF level that are lower than both the CPS constrained and the current LDC DSM targets despite the MACC using the generally more permissive UCT cost effectiveness test and assigning greater value to avoided carbon emissions.¹³

The disparity between the low MACC results and the levels in the CPS and utility DSM plans would have been hard to ignore¹⁴:



Both companies testified that the MACC is somewhat of a black box. Enbridge was frank about the results being somewhat perplexing.¹⁵ Union's Mr. Ginis said "I can't speak to the details -- I understand what you are saying that it sounds like business as usual. But I don't know that that absolutely means that it's exactly the same as that."¹⁶

¹³ See for e.g. V. 2, p. 102 for a comparison of TRC vs UCT results. Union at paragraph 57 of its argument notes that the CPS uses the DSM framework test, the TRC+, not the UCT, which is the test implicit in the MACC for C&T. This is simply obfuscation, for as Mr. Neme points out, the TRC+ is a more restrictive test and if anything there will be even more cost-effective DSM available using a UCT approach consistent with the C&T framework.

¹⁴ CPS data from JT2.15, LDC from L.p15, table 1, MACC from GEC/ED.STAFF.3, MACC with LDC adjustments from EGD Ex. C/5/2/p.26, table 3 and Union Ex. 3/4/App. A, tables 2 & 3

¹⁵ Ex. C, Tab 5, S.2 paragraph 75 and at Ex. I.1.EGDI.GEC.20 (a)

¹⁶ V.2, p. 127

Despite the acknowledgement that the low MACC result was perplexing, neither company investigated with sufficient vigor to gain clarity (as is obvious by their continued misinterpretation on the inclusion of free riders discussed above).¹⁷ Had they done so it would have been obvious that there are opportunities for program enhancements. This in our submission was convenient and willful blindness. The utilities could avoid load reducing incremental efficiency under the C&T Framework that might not be accompanied by shareholder incentives (as it would be under the DSM Framework).

In contrast, faced with the counterintuitive results of lower than CPS constrained results in the MACC, Mr. Neme inquired of Board Staff and of ICF and identified the business as usual limitation in the MACC. Both the CPS budget constrained and semi-constrained scenarios had an optimized mix of program approaches, some using a business as usual program approach, and some, where most cost effective, using a more aggressive approach, but the MACC used only the business as usual approach. In his report Mr. Neme then analysed at a high level what opportunity this limitation precludes and he made a conservative estimate of the added cost ratepayers will incur as a result of the companies accepting this limitation – approximately \$18 million for each company.¹⁸

Mr. Neme testified that the draft he received of the MACC as an advisory committee member had indicated that the MACC had used the “CPS adoption rate” whereas the final report states it used the CPS adoption rate with the added words “for BAU case incentive levels”.¹⁹ He noted that had he been made aware of that choice at the time he would have objected. He would have done so because in his expert opinion, which was not challenged in the hearing, there is plenty of cost effective and achievable potential even under the TRC+ test, let alone the TRC+ plus carbon avoidance benefits or the UCT (or PACT) test, potential that could be achieved with some combination of increases to incentives, the use of more affordable and effective upstream incentives for distributors and manufacturers and/or increased marketing.

It is notable that both companies would not look behind the MACC to investigate and correct its apparent inconsistency with the CPS and with current DSM results but were quite willing to deviate from the MACC results by their misconceived addition of free rider discounting. And when it came to analysing their favoured RNG option, both companies were quick to ignore the MACC results and instead adopt a completely different analysis and set of assumptions.

The issue boils down to this: faced with counterintuitive MACC results, should the companies have analysed specific and promising, highly cost effective, DSM measures, and considered

¹⁷ See for e.g. Ex. I.1.EGDI.GEC.29 (b)

¹⁸ Ex. L., p. 34

¹⁹ V.4, p. 84

DSM program approaches beyond business as usual as an abatement option? Had they done so the uncontested evidence of Mr. Neme is that they would have found millions of dollars of savings for ratepayers compared to the option of allowance purchases.

It is disconcerting that the companies looking at compliance costs totalling roughly two thirds of a billion dollars per year and charged with determining an optimal mix of compliance approaches were either willfully blind, or at the very least, cavalier, in their consideration of customer abatement.

4. Further Misapplication of the CPS and MACC

Double counting of free ridership was a major misinterpretation of the CPS and MACC. For example, removing that error alone increases the CPS constrained results from 9% greater than Enbridge's 2018 DSM plan to 51% greater.²⁰ A similar impact would apply to Union. But this was not the only mistake or misrepresentation in the LDC evidence.

Misrepresenting CPS carbon abatement costs

While some might be tempting to excuse the companies rejection of incremental cap and trade driven DSM as simply an honest attempt to follow the framework, their further misuse of the CPS to assess the cost of carbon abatement from achievable incremental DSM presents a challenge to any presumption of utility innocence or objectivity. Both companies testified that the incremental efficiency that could be obtained by moving from the CPS Constrained to Semi-Constrained scenarios would provide CO₂e reductions at a cost of \$60/tonne, far in excess of the LTCPF mid-price forecast. (Union also cites the figure of \$119/tonne in its argument for moving to the unconstrained.) They achieved this result by the mental gymnastics of simply ignoring the gas commodity cost savings – i.e. by turning a blind eye to the benefit side of the ledger sheet.

Mr. Neme demonstrated how egregious this erroneous approach was by illustrating how the RNG proposal would have fared if treated in like manner. As shown below, the RNG proposal achieves a breakeven benefit cost ratio of 1 using the UCT test as the utilities have. However it falls to .28 (a cost of \$11.46/m³ of gas) under the more restrictive TRC or SCT and to an even lower ratio of .19 under the incomplete UCT, ignoring the gas savings as the utilities did for DSM.²¹

²⁰ K2.2, ED Compendium at p. 48

²¹ Ex. L, p. 30

Figure 1: Comparison of Renewable Gas Proposal Cost-Effectiveness Test Results**Utility Cost Test**

Benefits		Costs		Net Benefits	Benefit-Cost Ratio
Avoided Cost of Traditional Gas	\$3.69	Utility payment for RNG	\$4.54		
Avoided Cost of CO2 Allowances	\$0.85	Provincial Subsidy for RNG	n.a.		
Total	\$4.54	Total	\$4.54	\$0.00	1.00

TRC or Societal Test

Benefits		Costs		Net Benefits	Benefit-Cost Ratio
Avoided Cost of Traditional Gas	\$3.69	Utility payment for RNG	\$4.54		
Avoided Cost of CO2 Allowances	\$0.85	Provincial Subsidy for RNG	\$11.46		
Total	\$4.54	Total	\$16.00	(\$11.46)	0.28

Utility Cost vs. Carbon Benefits Only*(i.e. approach utilities used to evaluate incremental efficiency)*

Benefits		Costs		Net Benefits	Benefit-Cost Ratio
Avoided Cost of Traditional Gas	n.a.	Utility payment for RNG	\$4.54		
Avoided Cost of CO2 Allowances	\$0.85	Provincial Subsidy for RNG	n.a.		
Total	\$0.85	Total	\$4.54	(\$3.69)	0.19

Board Staff asked Mr. Neme to correct the utilities' misleading \$60 and \$119/tonne calculations of the cost of incremental efficiency per tonne of CO₂e for the difference between the constrained and semi-constrained and unconstrained CPS scenarios, and his results, which were not challenged in cross-examination, are as follows²²:

²² JT 2.15

Table 2: 2018-2020 Incremental Cost per Tonne Carbon Emission Reduction
(CPS Scenario Incremental Impacts, Excluding Large Volume Industrial Customers)

Utility/Sector	Annual Savings (million m3)	Budget (millions \$)	Lifetime Carbon Avoided (tonnes)	Avoided Gas Costs (millions \$)	Net Cost (millions \$)	Net cost per Tonne Carbon
Constrained to Semi-Constrained						
Res	15	\$63	848,397	\$63	\$1	\$1
Com	20	\$36	656,828	\$52	(\$16)	(\$24)
Ind	13	\$19	440,483	\$72	(\$52)	(\$119)
Total	48	\$119	1,945,708	\$186	(\$67)	(\$34)
Semi-Constrained to Unconstrained						
Res	135	\$627	7,053,474	\$649	(\$22)	(\$3)
Com	65	\$108	1,167,971	\$134	(\$26)	(\$22)
Ind	15	\$275	436,651	\$44	\$231	\$529
Total	215	\$1,011	8,658,096	\$828	\$183	\$21

As Mr. Neme's Table 2 demonstrates, moving from the CPS constrained scenario to the semi-constrained level actually achieves substantially negative total costs per tonne of abatement. And that understates the cost-effectiveness of moving from the utilities' current savings levels to the semi-constrained level of savings because the utilities are currently planning to get less savings for more spending than the CPS constrained scenario. Moreover, even the increment from semi-constrained to unconstrained has a negative cost for the residential and commercial sectors.

MACC apples and oranges comparisons

As noted above, Mr. Neme testified that both companies inappropriately compared the entirety of their DSM targets for non-large volume customers to the MACC, ignoring the fact that the MACC properly excluded non-large volume LFEs and voluntary participants. His evidence was not challenged in the hearing. Again, we are struck by the (at very least, cavalier) provision of an apples to oranges comparison in light of the vast sums that are being allocated in the C&T plan. The fact that both utilities made the same 'mistake' adds to our concern.

5 Failure to Recognise Obvious EE Potential – The false Dichotomy of “Reasonable” vs “Aggressive”

The CPS describes the results in its constrained and semi-constrained scenarios as:

...the optimal collection of programs that would achieve the most savings within a fixed budget tends to include a mixture of the aggressive cases of some inexpensive measures and the BAU cases of more expensive measures.²³

It is important to recognize that the use of the term ‘aggressive’ is relative to BAU or ‘business as usual’. A characterization of the business as usual scenario as ‘reasonable’ does not correspond to a more aggressive approach being ‘unreasonable’. Indeed, by definition, the inclusion of those more aggressive program approaches in the CPS evidences ICF’s judgement that the results are indeed *achievable* at the constrained or semi-constrained budget levels. The reason for ICF’s limitation of the MACC to Business as Usual is not clear. Clearly, future versions of the MACC should correct this gap.

Mr. Neme, citing the CPS, his research and evidence in the DSM plan hearing, and his knowledge of programs in other jurisdictions, noted that there is lots of cost effective potential under either the TRC+ or UCT tests. In particular he identified a clear, highly cost-effective opportunity in the C&I sector among a number of measures for immediate improvement of DSM results and even larger opportunities that could ramp up relatively quickly.²⁴ He observed that existing programs have relatively low incentive rates that could quickly and easily be increased to enhance participation and that enhanced programs targeting upstream distributors and manufacturers can achieve results that are multiples of the existing rates. This evidence was not challenged by the utilities.

The companies were clear, they did not go beyond a high level comparison of their DSM targets to the MACC and look for opportunities hidden by this aggregate analysis.²⁵

When Mr. O’Leary suggested to Mr. Neme that the utilities used the MACC and Mr. Neme’s criticism was simply unhappiness with that approach, Mr. Neme correctly summed up the situation:

It's not a question of happiness. I am simply making the point that the cost-effective savings potential that was included in the MACC is a subset of the total cost-effective savings potential that was analyzed in the conservation potential study, and a subset of the total

²³ KT 1.5, CPS at p. 12

²⁴ V.4, pp. 69 & 96 - 97

²⁵ Union at V. 2, p. 103 and at p. 141, l. 6 and p. 144, l.16, Enbridge at V.3, p.188

conservation potential that is available to the utilities to acquire, should they choose to do so.

MR. O'LEARY: So where you're told that the MACC includes measures which reflect realistic incentive levels, you disagree with that?

MR. NEME: I don't know what realistic incentive levels means. I've seen utilities across North America use all kinds of incentive levels; they were all equally realistic.

What the issue is for any jurisdiction, [is] the degree to which there's an imperative to acquire cost-effective efficiency in lieu of alternative resources on the supply side.²⁶ (emphasis added)

In short, the companies are simply prepared to ignore the need to be cost efficient. They have not done the analysis that demonstrates they have an optimal plan, have hidden behind the MACC despite its obvious shortcomings, have claimed adverse non-participant rate impacts but ignored the fact that allowance purchases will fund programs with similar or worse distributional disparity (see section 8, below), and when faced with uncontested evidence that there is available DSM that is more cost-effective than the cost of gas plus allowances, they are asking the Board to ignore the fact that the emperor has no clothes.

6 Beware of CCAP – but don't trouble us with the facts

While the companies and the CPS correctly acknowledge that CCAP programs could soak up some of the potential, a look at the details included in the 82 page CCAP demonstrates that the concern is exaggerated and the largest opportunities for incremental utility DSM are not being addressed by CCAP thus far, and certainly weren't being addressed for 2018.

²⁶ V.4, pp.89-90

As Mr. Neme testified, the best opportunities and biggest bang for the compliance buck is likely in commercial and industrial markets.²⁷ As noted above, he observed that the companies have low participation rates for many measures in those markets and lots of room for improved incentives. He also noted, for example, that the CCAP plan addresses only the food service industry and the agricultural sector in the industrial sector: “Now, those are very discrete subcomponents of the overall industrial sector, number one. And number two, the government initiatives were planned to just begin to get launched around this time.”²⁸ The latter comment is relevant because even if CCAP might at some point be redirected to address other end uses, it did not and would not take these opportunities off the market in 2018 and every inefficient measure installed throughout the Ontario economy in 2018 that the LDCs could have targeted and didn’t is likely a lost opportunity for years to come, adding to compliance costs for that period.

In contrast, the companies offered no analysis of what the CCAP is targeting, and indicated that they had no details apart from its large budget.²⁹ For the utilities it appears that ignorance is bliss.

In section 7, below, we address the capability of the companies to address the forecast uncertainty posed by government programs.

7 Illusory Risk

Witnesses for both companies expressed concern about the risk of embarking on incremental DSM that doesn’t fully materialize, exposing the companies to added compliance costs.

As was made clear under cross examination, there is lots of flexibility to adjust instrument purchases over time to accommodate any miss-forecast of DSM, just as there is to cope with weather and other risks to the volume forecast.³⁰

It was also agreed that the bulk of resource acquisition DSM program costs at the margin are not fixed, and incentives are only paid if customers do in fact participate.³¹

²⁷ V.4, p. 95 and see V.3, pp. 185-186 where Mr. Johnson’s agreed about the relative cost-effectiveness of C&I programs.

²⁸ V.4, p.94

²⁹ See for e.g. V.2, p.143 and see J3.8 where the CCAP in the commercial sector appears to target only hospitals, schools and multi-family buildings.

³⁰ V.3, p. 174

³¹ Discussed at V.3, p. 180

Mr. Neme was asked whether the incremental DSM efforts he suggested are risky. He responded:

Generally speaking, my high-level answer is no. To be sure, there is always uncertainty about how much participation and savings you will get when you change the program design. That's the nature of the beast.

However, there are lots of utilities that have been using the higher incentive levels for some of these products that I'm suggesting the utilities could have adopted. So there is experience in other jurisdictions with those that one could look to.

And then I think it's important to also recognize that in many respects, efficiency is actually risk-reducing, risk mitigating.

The reason for is that when you persuade a customer through a DSM program to invest in an efficiency measure, most of which lasts 15, 20 years, you're essentially, you know, buying a hedge for that customer against the uncertainty associated with future gas prices, the uncertainty associated with future carbon prices...³²

Further, given the risk that a new Ontario government could cancel the C&T program and Ontario would face a higher carbon tax regime imposed by the federal government, the advantage of DSM spending increases both because the avoided carbon cost would be higher, and because the likelihood of competing provincial energy efficiency programs would be lower.³³

Finally, the escalating floor price in the Ontario allowance auctions certainly suggests that the risk of carbon costs under C&T going higher is more significant than the likelihood of them falling. DSM avoids this asymmetrical price risk. Once in place a DSM measure avoids a stream of gas and GHG costs and price risk and foreign exchange risk going out 15 or 25 years.³⁴

8 The Impact on Gas Customers of C&T Driven DSM vs Allowance Purchases, and Government Funded Energy Efficiency

The companies suggested that the benefits of DSM flow to participants while the costs are shared by non-participants, whereas allowance purchases (and RNG) affect all customers in

³² V.4, p. 98

³³ The federal tax is expected to be \$50/tonne in 2022 according to the federal government, K3.3

³⁴ V.2, p. 152

proportion to their gas use. This distinction is both exaggerated and in large measure illusory for the following reasons:

1. Government use of carbon allowance revenues creates the same distributional effects between participants and non-participants as the utilities' DSM programs would - or worse:
 - If allowance purchases fund government energy efficiency the participants in those programs similarly get the fuel and carbon cost savings while non-participating gas customers – who shared in the cost of buying the allowances – do not.³⁵ In other words, for every carbon allowance purchased instead of avoided, there can still be distributional effects between participants and non-participants
 - Given the much larger California market, it is reasonable to assume that a significant portion of allowance purchase funds will leave the province taking customer benefits of efficiency infrastructure build up, and local jobs and economic multipliers with it.³⁶ ICF has previously described this as a potential for the transfer of 100s of millions of dollars to California.³⁷
 - Government programs also fund non-gas efficiency. \$14,000 incentives to Tesla purchasers don't assist most natural gas customers.³⁸ To the extent that the funds that stay in the province don't proportionately fund gas conservation, gas ratepayers lose out.
2. DSM puts some downward pressures on rates that benefits all gas customers:
 - C&T driven DSM and government EE programs (***but only to the extent they fund gas conservation***) both reduce distribution system costs in the long run, benefiting non-participants.
 - C&T driven DSM and government EE programs (***but only to the extent they fund gas conservation***) can have significant commodity price suppression benefits for all gas ratepayers. 2018 DSM efforts alone will over time reduce gas purchases by over 3.6 billion m3.³⁹
 - C&T driven DSM reduces allowance purchases and thereby eases pressure on the allowance market, with a corresponding potential for allowance price

³⁵ V.2, p.149

³⁶ V.2, p.147

³⁷ K2.2, p. 10

³⁸ V.2, p.150

³⁹ JT 2.1 Att. Lifetime gas savings: 1,226,381,321 m3 , J2.2 Att. A: 2,413,898,486 m3

suppression impacts that will be enjoyed by all gas ratepayers.⁴⁰ EGDI's 2018 DSM alone will save an estimated \$97,538,648 in GHG costs and Union's an estimated \$128,937,739, both on a discounted basis.⁴¹ These reduced instrument purchases will undoubtedly place downward pressure on auction and secondary market instrument prices.

3. Utility DSM programs are better situated to address any equity concerns:

- DSM programs have developed over many years and tend to be stable influences whereas government programs come and go and are subject to the risk of government policy change, particularly in 2018 with the impending election. Instability risks ratepayer program investment.
- C&T driven DSM can be effectively and transparently monitored, evaluated and regulated by the Board with stakeholder participation using the DSM EM&V mechanisms.
- Historic and future DSM has or will provide an opportunity for most gas ratepayers to be participants at some stage. Added DSM adds participants which, in turn, reduces (rather than adds to) any distributional or equity concerns.

Accordingly, it is clear that the most favourable approach for gas ratepayers, (whether they are 2018 DSM participants or not) is to direct compliance dollars to ratepayer funded DSM rather than to allowance purchases.

9 Whack-a-Mole DSM – (never in the right framework)



Union's witnesses posited that they were justified in placing virtually all their reliance on the MACC and not on the CPS in part because the CPS used the TRC+ test and the Board had stated it was premature to use TRC or SCT for C&T compliance planning. The utility argument reveals two logical inconsistencies. First, given that UCT tends to give an even more favourable result

⁴⁰ V.2, p. 151

⁴¹ JT 2.1 Att. , J2.2 Att. A

for DSM, this defence is without any merit. If anything, the CPS results understate the availability of incremental cost effective DSM due to the test utilized so it should have set off even louder alarm bells in regard to the low MACC results. Second, if CPS TRC analysis is not to be used for C&T compliance planning, how can the companies argue that the right way to consider C&T DSM abatement is the DSM Framework?

Despite this continued refrain throughout the hearing that any consideration of incremental DSM should be within the DSM framework, neither company has proposed an increase in DSM budgets or volumes as a result of C&T obligations in their mid-term DSM applications. Further, both companies have noted the \$2/month/customer rate impact cap in the DSM framework but, to date, have not asked that it be eased in light of C&T obligations. The implication is that consideration of C&T driven ratepayer funded incremental DSM must wait till the 2020 DSM Framework review for implementation in 2021. As discussed above, this is a recipe for lost opportunities. This also implies that a stricter cost effectiveness test (the TRC+) should be used for C&T customer abatement than for other options such as RNG. As Mr. Neme explained, by definition that ensures a sub-optimal plan.⁴²

In short, the companies say no C&T DSM here because a literal and strict interpretation of the C&T framework (the MACC and only the MACC, even if on its face it has problems) precludes it, and no incremental DSM in the DSM mid-term review, because you can't exceed the DSM rate impact cap that was established before the advent of the carbon cap and trade policy.

The evidence discloses there are cost-effective C&T driven DSM opportunities once one ventures beyond macro level analysis that also excludes anything but a business as usual approach. An overly literal application of the framework guidelines that blocks access to a proper consideration of those opportunities must be rejected to accommodate rational economics and sound public policy.

10 Avoiding a Lost Opportunity – What can be done now to optimize the compliance plan (whether or not the utilities are at fault)?

If the Board is persuaded that the proposed compliance plans have not been optimized in regard to customer abatement opportunities, which surely means that the cost consequences of the plans are not optimal, the question arises as to remedies. The Board's encouragement to the companies to look at customer abatement in the 2017 C&T Decision did not result in the companies capturing incremental ratepayer funded energy efficiency in the current plans.

⁴² V.4, p. 92

Denying full cost recovery to compensate ratepayers for the lack of optimality would step up the encouragement. As noted, Mr. Neme gave a conservative estimate of the cost of the failing as \$18M per utility.

While a cost denial would send a strong signal to the companies that the Board is dissatisfied, that approach would not minimize lost opportunities nor would it provide adequate guidance to the utilities going forward as they claim to be hemmed in under the C&T framework by the MACC and by the rate impact cap in the DSM framework.

Accordingly, GEC submits that the Board should consider the following added responses:

GEC submits that the Board should consider approving those portions of the balance of the compliance plan that the Board finds favourable but require the companies to file a revised customer abatement plan that includes incremental ratepayer funded DSM (which would form a basis for C&T driven conservation going forward). The variance account could adjust for any cost impact of the altered plan as eventually approved. If the Board proceeds in this manner, GEC suggests that the companies be given two months to propose changes and require the utilities to meaningfully consult with stakeholders. For consistency with the analysis of other compliance options, GEC submits that the Board should also indicate that the primary test to be utilized is the UCT. The refiled plans should be subject to an expedited written proceeding. To facilitate expedited planning, consultation, and review, the Board may wish to consider offering some guidelines. The CPS constrained budget scenario shows that Enbridge could cost effectively achieve 50% more savings (on a full annual basis) than presently targeted by DSM and that Union could achieve 25% more for its non-large volume customers at current budgets by optimizing its approach.⁴³ Accordingly, a lesser level of a 25% annual increase for Enbridge and 12.5% for Union would be unlikely to be unduly difficult or costly. The revisions would be subject to Board review for cost-effectiveness and consideration of other factors such as rate impact. Of course, with only a few months remaining in 2018 the impact of this in 2018 would be slight, but the ongoing impact in subsequent years would be significant.

Alternatively, the Board could indicate its expectation that the companies will revise their mid-term DSM framework review filings to provide such revisions and indicate its view on how that framework should yield to accommodate C&T driven ratepayer funded DSM. In particular, for this alternative to have effect, the Board would want to enable the consideration of alternative cost effectiveness testing (i.e. the UCT as a primary test to compare compliance options on an apples and apples basis), and consideration of an easing of the rate impact cap given the added need for, and benefits of, customer abatement. We do not suggest that the Board decide any of these questions in this proceeding, rather, that this panel indicate its view of the need for

⁴³ Ex. L, p. 16 & 21

such consideration in the mid-term review. As the panel will be aware, GEC has corresponded with the full Board in support of ED's request in that regard.

Looking ahead to the 2019 and 2020 compliance plans, we submit that the Board should direct the companies to evaluate and include all incremental ratepayer funded efficiency that is achievable and cost-effective relative to other compliance options. In doing so the utilities should not limit their analysis or plan by reason of reference to the 'business as usual' scenario in the MACC.

Finally, we urge the Board to direct staff to work to ensure that the next version of the conservation potential study (being prepared in cooperation with the IESO) includes a revised MACC that captures the full range of opportunities, not just business as usual.

All of which is respectfully submitted this 31st day of May, 2018

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