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Our File No. 176642

May 31, 2018

VIA RESS, EMAIL AND COURIER

Ontario Energy Board
2300 Yonge Street
27th Floor
Toronto, Ontario
M4P 1E4

Attention: Kirsten Walli
Board Secretary

Dear Ms. Walli:

Re: EB-2017-0224/0255/0275: Enbridge Gas Distribution Inc., Union Gas Limited, EPCOR Natural Gas Limited Partnership, Applications for Approval of the Cost Consequences of 2018 Cap and Trade Compliance Plans

Please find enclosed herewith BOMA's Written Submission.

Yours truly,

FOGLER, RUBINOFF LLP

Thomas Brett
TB/dd
Encls.
cc: All Parties *(via email)*

EB-2017-0224
EB-2017-0255
EB-2017-0275

ONTARIO ENERGY BOARD

Enbridge Gas Distribution Inc.
Union Gas Limited
EPCOR Natural Gas Limited Partnership

Applications for approval of the cost consequences of 2018 cap and trade compliance plans

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WRITTEN SUBMISSION OF

BUILDING OWNERS AND MANAGERS ASSOCIATION, GREATER TORONTO ("BOMA")

May 31, 2018

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Counsel for BOMA

Introduction

Given the similarity in the Union and EGD compliance plans and related issues, BOMA has prepared a single submission, which addresses both utilities' cap and trade compliance submissions. Where appropriate, BOMA will comment separately on the utilities' positions. Appendices A and B describe a method of integrating cap and trade compliance conservation abatements, with the utilities conservation program(s) that improve the balance of compliance plans and preserve the integrity of the conservation programs.

1. Cost Consequences – *Are the requested cost consequences of the Gas Utilities' Compliance Plans reasonable and appropriate?*

BOMA is not able to give an unqualified answer to the question of whether the cost consequences of the Enbridge and Union 2018 compliance plans are "reasonable and appropriate" because the contents of the plans, the options chosen, and the "optimisation" of the plans have not been made available to the intervenors.

The broad contours of the 2018 plans can, to some extent, be inferred from a review of the WCI market, including the fact that the linkage of the Ontario cap and trade market and the California/Quebec market makes available a much larger pool of allowances for auction, and a much more developed and liquid secondary market for allowance and offset trading, than were available in the 2017 "Ontario only" market, as well as some "off the shelf" offset projects available for purchase in California.

The utilities agreed that their 2018 plans consisted largely of allowance purchases, notwithstanding the fact that the Board, in the Framework and in last year's (2017) decision, encouraged the utilities to consider and investigate abatement measures for inclusion in the 2018 plan. The only emission abatement project that might contribute to reduced emissions in 2018 other than the GIF enhancement, is the Renewable Natural Gas Initiative. The utilities have prioritized this initiative because the Ontario government has agreed to pay approximately seventy percent of the cost of the projects. However, it is unlikely that any renewable natural gas project will produce material emissions reductions in 2018.

Offsets are not yet available in Ontario, save for landfill gas projects. Most offset protocols will not be available until later this year, and most them take a long time to develop and implement.

One would have expected, given the emissions abatement potential and the relative cost-effectiveness advantage of energy conservation abatement that some conservation abatement projects would have been included in the 2018 compliance plans.

While the utilities are of the view that conservation projects are abatement initiatives, they did not include any conservation projects in their 2018 compliance plans because, they argued, conservation projects should be considered only within the existing DSM framework, notwithstanding the fact that these projects are, at the moment, the most economic and cost-effective abatement alternatives. The reason, in BOMA's view, that the utilities wanted to avoid prudency and disallowance risk, as well as the risk of stranded assets.

The utilities proposed an abatement construct framed as a method of researching, developing, testing, and implementing longer term emissions abatement investments, which might eventually contribute to lowering greenhouse gas emissions. But these initiatives are, in 2018, research,

development, and demonstration projects, not operating abatement projects. None of these projects were far enough advanced to reduce emissions in 2018. Moreover, the utilities' share of the emissions derived from energy savings generated by the Green Energy Fund funded enhancements to the utilities' residential retrofit CDM programs were very small. Put another way, the contributions of emissions abatement projects to the 2018 plans are negligible. They are a rounding error in the calculation of the overall 2018 cap and trade costs paid by ratepayers.

Consequently, we can infer that the 2018 compliance plans consist of purchases of allowances, either at auction, or in the secondary market. The balance of the two types of purchases is unknown to intervenors, but it is likely that by far the largest part of the allowances will be purchased at auction. Since there is a single auction clearing price, the cost consequences of the 2018 compliance plans will consist largely of the total cost of the purchased auctions. Those purchases would be reasonable and appropriate costs, only on the assumption that the compliance plans themselves are reasonable and balanced.

BOMA supports to utilities administration cost proposals.

Compliance Plans

1.4 Has the gas utility reasonably and appropriately conducted its Compliance Plan option analysis and optimization of decision making?

1.5 Is the gas utility's purchasing strategy reasonable and appropriate?

The issue of whether the gas utilities have reasonably and appropriately conducted their compliance plan analysis and optimization of decision making, depend largely on whether the utilities decision not to include any additional enhancements to existing conservation programs or "new" conservation programs in their 2018 compliance plans, was reasonable and appropriate.

As noted above, both utilities proposed that any enhancements (more dollars) to their existing DSM programs, or new DSM programs, should be considered in future DSM proceedings, following the DSM mid-term review, rather than in the cap and trade proceeding.

The problem with this approach, in BOMA's view, is that contrary to utility assertions, some DSM projects are more cost-effective than purchasing allowances at this time.

Second, the failure to include conservation abatement in the compliance plans effectively means that the "plans" will consist almost entirely of the allowance purchases. That plan leaves utilities and the ratepayers exposed to future allowance price increases over the next few years, let alone in the medium to larger term.

On the other hand, a program of conservation abatement, a significant annual increase of conservation programs will, over time, all else being equal, reduce greenhouse gas emissions by larger and larger amounts, leading to the purchase of a declining number of allowances. This gradual increase in conservation abatement will also serve as a bridge to the time when other technologies are developed to further reduce those emissions.

This conclusion was corroborated by the Report of the Environmental Commissioner of Ontario's Annual Conservation Report 2016/17. At p64, the Commissioner stated:

> *"Costs and benefits can also be looked at from the perspective of the utility. How much does the utility need to pay to save a cubic metre of gas? In simple terms, the total DSM program cost in 2015 was $68.173 million (including the cost of initiatives that did not have directly measurable gas savings, but excluding shareholder incentives) and the total cumulative gas savings were 2,433,699,754m^3. The (non-discounted) cost per cubic metre of gas saved is 2.8¢/m^3.*
>
> *Put into the context of Ontario's carbon price (as established by its new cap and trade program), 2.8¢/m^3 would be equivalent to paying $15/t CO_2e in Ontario's first two auctions. What's more, this estimated cost of conservation does not even include the additional benefits for natural gas distributors that would accrue from distributing less gas.*

These results suggest that utilities should examine spending more on conservation (beyond their approved DSM budgets), as part of their cap and trade compliance plans (see Section 5.2.2). Over the long term, more conservation may be a less expensive way to meet cap and trade compliance obligations than purchasing allowances, although this is not guaranteed (the incremental cost of conservation tends to increase as more conservation programs are implemented). This will benefit gas customers who will bear the full burden of the cost of purchasing cap and trade allowances. In other words, when conservation is cheaper for customers than cap and trade allowances, it should be turned to first."

In that Report, the Commissioner was using the Utility Cost Test, which includes the utility's total costs, including incentives paid plus advisor costs. Savings to the utility include gas purchase costs. While the report's calculations were based on 2015 costs and savings, the emissions reductions from the conservation projects were equivalent to an allowance cost $15/t CO_2e lower than the forecast 2018 allowance cost and a far cry from the recent $60/t CO_2e estimated by Union. The abatement costs and savings would be forecast for each plan/year.

The issue has been framed by the utilities as whether conservation abatements should be assessed within the DSM or cap and trade frameworks. In BOMA's view, the more important point is, given that it is clear that using the utility cost test, conservation measures (especially an enhancement of existing conservation programs) are the most cost-effective abatements, these conservation abatements, whether paid for by ratepayers, or the Government of Ontario, or both, should be an important part of the cap and trade utilities' compliance plans. As noted in the Appendices, performance based conservation will both lower the cost of these abatements and ensure that such savings and emission reductions are measured in a credible fashion. Properly measured savings are a fundamental part of a compliance plan that, over time, will achieve a proper balance between allowance purchases and abatement measures. Unfortunately, the utilities refusal to accept this point, and their failure to properly measure conservation cost effectiveness has made their 2018 plans unbalanced and weaker.

The utilities have made a number of errors in their treatment of conservation abatements.

First, they have argued that there are no further cost-effective conservation opportunities that are not already covered in their existing CDM programs. However, they have not distinguished between new conservation programs and additional funding for existing programs. The latter can be implemented much more quickly. Second, they have erred in not including the cost of the natural gas commodity savings as a result of the implementation of a conservation measure in their calculation of cost effectiveness. If the cost of the gas commodity is counted, the conservation measures are cost-effective under the utility cost test when set against the current price of allowances, as confirmed by the analysis of the Environmental Commissioner. Moreover, Mr. Neme's evidence pointed out that the ICF Consultation Potential Study demonstrated that utilities' existing DSM programs were cost-effective conservation measures even under the most constrained of its three scenarios.

The utilities have also claimed that it is inappropriate to implement a new conservation measure or even increase the ratepayer funding for their existing conservation program(s), given the fact that the mid-term review of conservation program is not complete. However, nothing prevented the utilities from seeking additional funds for existing conservation programs at this time.

The utilities also stated that they were constrained by the $2.00 per month per residential customer limit in the Board's Conservation Guidelines. However, nowhere do the cap and trade guidelines say that the utilities cannot propose additional conservation measures or enhanced funding for existing measures as part of their compliance plans. The utilities went on to raise ratepayer impact as a more general constraint, without providing any specific analysis of what additional ratepayer impact might be acceptable. Additional funding for proven successful measures, perhaps including increased level of incentives, would likely attract a much larger group of customer, and over time, large numbers of customers would be able to participate in the programs, and share in

the benefits, as well as the costs of such programs. Moreover, all customers are contributing to the very high current costs of compliance via large allowance purchases, through the cap and trade levy, without any offsetting benefits, as proposed government managed programs will take time to commence operations and "ramp up", and then only to the extent that cap and trade levies collected from utility customers are funnelled into programs which help those customers reduce emissions. Some of those programs may not be well managed. Utility run conservation projects enjoy a record of successful implementation and program take-up, with identifiable and to some degree measurable benefits. The introduction of performance-based conservation, now underway and increasing, will enhance the attractiveness of conservation abatements and lower their (especially capital) costs.

In addition, as noted above, the utilities claimed that there were no cost-effective conservation abatement projects to do, beyond those that were included in their existing programs. However, they did not appear to address the cost-effectiveness of providing more ratepayer or government funding for their most successful existing programs.

The utilities have also claimed that available conservation projects are not cost-effective when compared against the cost of allowances. However, under cross-examination in the hearing, these claims have shown to be incorrect. In fact, there remains a large amount of energy conservation potential to be had at costs less than allowance costs, using the utility cost test.

The utilities argues that the Utility Cost Test was also the test employed in the MACC study, produced by ICF for the Ontario Energy Board and the utilities stated that they were guided by the MACC, although EGD made clear that MACC was not the only information it used.

However, the MACC was a deficient guide in that it used only the most conservative conservation potential options from the ICF Conservation Potential Study, and assumed that the existing conservation program could not be enhanced by larger incentives or additional funding.

Moreover, the utilities did not include other potential benefits from conservation such as the "spillover effects", and future reductions in utility infrastructure costs.

Moreover, the utilities appeared to apply a net to gross ratio of, for example, 0.54 (fifty four percent), for the industrial programs, as was done in the MACC, notwithstanding the fact that the Conservation Potential Study had already made allowance for natural conservation in estimating the economic conservation [potential]. There was, therefore, some double discounting of savings. Finally, it appears that the Ontario Energy Board staff did not provide the final version of the MACC to the Advisory Panel for their review and comments, which final report contained material changes from earlier versions.

The utilities also conflated the net to gross issue with the fact that the Ontario government had launched programs which, in some cases, might be competitive with utility DSM programs. Those are different things. In fact, the GEF enhancements to the utilities' whole home retrofit programs demonstrate that utility/government collaboration can increase the benefits to all parties.

At the same time as they misapplied the existing net to gross ratios, in their submissions to the mid-term review, the utilities are suggesting a modification to the net to the existing gross ratios, based on the recommendation of the "Peters Study" commissioned by EDG in 2017, which recommended substantial decreases in the net to gross differential.

Finally, the MACC study is somewhat opaque and the utilities, especially Union, appeared to be unaware of the details, underlying its recommendations. EGD used additional data as well as the MACC.

Leaving aside the debate over the appropriate "framework", which is something of a red herring, it is important that a way be found to include conservation abatement, incremental to the utilities' baseline conservation programs into the utilities' compliance plans where they are competitive with allowance purchase costs and ensure that the reduction of cap and trade levies are accounted for in determining the cost effectiveness of conservation abatement. It is clear that large amounts of conservation abatement are competitive. The Board needs to address this matter.

1.7 Has the gas utility reasonably and appropriately presented and conducted its Compliance Plan risk management process and analysis?

Whether the gas utilities have reasonably and appropriately presented and conducted their compliance plans risk assessment, and have appropriate structures in place to assess and mitigate those risks is not clear from the information available to the intervenors.

While the appropriate organizational structures appear to be in place, the quality of the risk assessment and management is more difficult to determine.

BOMA notes that while the utilities often refer to their compliance obligation risk (the risks of not meeting their emission reduction targets), ratepayers that are bearing much of that risk. The cost consequences of the utilities' compliance plans are passed through to ratepayers, unless the Board finds that such costs imprudently incurred.

For example, if the utility were to continue to fulfill its compliance obligations solely by the purchase of allowances in a market where the cost of allowance is expected to increase, and to

refuse to incorporate less expensive conservation abatement projects, the ratepayers will suffer, as they will be paying more for compliance than necessary, especially if the federal government guidelines are imposed on Ontario in the event the existing cap and trade regime is cancelled.

Notwithstanding this reality, the utilities exaggerate the risk they face for compliance, if they were to introduce conservation abatement into their compliance plans. They paint a scenario under which the conservation abatement projects do not generate the forecast savings, which requires the utilities to then enter auctions or the secondary market to buy additional allowances at a higher price later; which they say would leave them open to a finding of imprudence, or the ratepayers with additional costs. BOMA believes this concern is overblown. Given the nascent state of the cap and trade market, and the Board's desire to move toward more balanced compliance plans, which include both allowance purchases and abatement investments, the Board is highly unlikely to find imprudency in the circumstances described above.

Moreover, the final compliance filing and determination of the utilities' success in meeting their targets are determined only after November 1, 2021, the year following the end of the first compliance period. The utilities have several years over which to shore up any shortfall in either allowances or emission reductions.

If conservation abatement were introduced into the compliance plans in an orderly manner, whether funded by ratepayers or through GIF-type arrangements or both, the savings, as reflected in reduced emissions, would gradually reduce the need to purchase allowances.

BOMA accepts the fact that the DSM framework, the cap and trade framework, and the Regulation 143 may have to be adjusted to accommodate the inclusion of more conservation abatement into the (next) compliance plans.

The Board would need to accept an expansion of the ratepayer-funded DSM, perhaps significant expansion, but expansion which could be done in an orderly manner over time. It would also need to signal its decision in this proceeding the general manner in which it would view prudency.

This would need to be discussions between the utilities, the Board, and the Ministry as to how emissions reduction due to conservation would be determined. Emissions reduction for the utilities are measured under detailed environmental emissions reporting regulations. Attribution for the measured decline in emissions would need to be settled, reflecting impacts of conservation over an agreed baseline of normalized gas consumption. Free ridership would not be an issue; it is total emissions reduction that are being measured.

A similar measurement and attribution issue exists with respect to the GIF funded enhancements to the utilities' residential home retrofit programs. BOMA is still not clear how the savings for retrofits are measured. Are they measured in the same manner as the original home energy conservation program, or some other way? Are the emissions reductions from the program simply deemed to exist based on the measured conservation results? Put another way, how are the greenhouse gas emissions abatement numbers that are included in both utilities' compliance plans determined, and how does that measurement relate to the attribution rules under the agreements between the utilities and MOEE? Those agreements pre-date the launch of the cap and trade program.

The utilities also state that introducing conservation abatement into their compliance plans put them at risk of underachieving emissions reduction targets for their measures because of the governments launch of new conservation programs. The utilities argue that these programs are quite large, and address some of the same sectors as do their own programs, especially in commercial, institutional and industrial programs. They say they are at risk for starting programs

that cannot compete with the government's programs, which could lead to imprudence fundings and/or stranded costs.

On the other hand, the GIF-utilities collaboration in the residential home retrofit sector, while needing some clarification as noted above, is a good example of both a successful risk mitigation measure and creative enhancement to an already successful conservation program. There is no reason why this type of arrangement could not be established in the various C&I sectors. Such arrangements would benefit ratepayers in that the utilities' management skills could improve the efficiency of program delivery and broaden the reach of already successful programs. Utilities would need to be properly compensated by the government for those efforts. BOMA believes the existing TPC agreements offer a good precedent.

Finally, the utilities are concerned that their successful and profitable conservation DSM programs will be compromised or harmed in some way by an attempt to make them a part of the cap and trade framework. See, for example, Ms. Oliver-Glasford's comments in the proceeding:

> *"But I would say it would be unfortunate to undercut the value energy efficiency by tying efficiency into a compliance plan for a carbon policy that may not exist over the long term." (Tr3, p112)*

Aside from the fact that it is likely, in BOMA's view, that a carbon policy of some kind is likely to be in place for a long time in Ontario, BOMA understands EGD's concerns. However, BOMA is of the view that claiming credit for successful incremental conservation savings in utilities' compliance plans will increase, not decrease, the value and role of conservation programs. Moreover, the alternative of the continued use of allowance purchase programs alone to meet emissions targets is not an acceptable long-term approach to emissions reduction compliance plans. Conservation abatement is, so far, the best available option of comparable magnitude.

1.8 Are the gas utility's proposed longer term investments reasonable and appropriate?

1.9 Are the gas utility's proposed new business activities reasonable and appropriate?

BOMA is supportive of the utilities' general approach to longer term abatement investments. The abatement construct was jointly developed by the utilities, which makes sense given they are now both owned by Enbridge Inc. BOMA supports the abatement construct in principle.

As for new business activities, BOMA believes each new business should be considered on a case by case basis, as is the Renewable Natural Gas procurement proposal, which is addressed in this proceeding (see discussion of 1.10 and 1.10.1, below).

With respect to the utilities' proposals for the $2 million Low Carbon Initiative Fund ("LCIF") of $2 million each, BOMA supports the idea of such funds and their size, subject to the utilities sharing the income earned or any other economic gain arising from these projects, by the utility or its affiliates with utility ratepayers. EGD and Union were unwilling to commit to the principle that any income or other economic gain received by the utility or its affiliates from third parties derived from IP, know-how, trade secrets, etc. created within the utility as a result of developing LCIF-supported abatement initiatives would be shared with the ratepayers. The utilities have argued it is unlikely any IP would be developed via LCIF funding, and that the Affiliate Relationships Code ("ARC") would in any event apply to the transfer of IP assets to a third party, and that a decision on the sharing of benefits can only be determined on a case specific basis. BOMA finds their arguments unpersuasive. For example, the ARC applies only to the transfer of assets to an affiliate and then, only to assets that are part of the utility rate base. BOMA is of the view that since the initial R&D&D funding is to be provided by ratepayers, any economic gain resulting from the exploitation of the resulting IP, and other knowledge developed from the R&D&D should be shared equally with ratepayers. If that commitment were added to the LCIF proposal, BOMA would be supportive. Otherwise, it opposes the proposal.

1.10 Are the gas utility's proposed greenhouse gas abatement activities reasonable and appropriate?

10.10.1 Are the gas utility's RNG procurement and funding proposals reasonable and appropriate?

BOMA is satisfied that JT2.6 demonstrates that utility ratepayers would not be exposed to gas price risk. The exposure to carbon price risk would be handled through the GGCEIDA accounts. That arrangement is acceptable to BOMA, both for EGD and Union (J3.1).

2. Monitoring and Reporting – *Are the proposed monitoring and reporting processes reasonable and appropriate?*

The utilities' template for monitoring and reporting results is very skeletal. It consists of the total emissions reduced or offset by purchases of the allowances and abatement, measures taken together, and the average cost per emission unit reduced by abatements and purchases of allowances or offsets.

It makes no differentiation between the average emission unit abatement cost versus the average allowance/offset purchase cost, due to alleged confidentiality concerns. So it is not possible for intervenors to compare the costs of the two key elements of the plans. Only the Board staff will be able to do that.

Given that the abatement components of the 2018 compliance plan (a share of the GIF enhancement driven savings of the utilities' home energy conservation programs) are very small, the issue is somewhat academic for 2018. However, in future plans, where emissions abatement measures are introduced, it will be important for intervenors to understand the relative costs of allowances purchased, offsets developed and abatement investments and expenditures, to

determine whether purchased compliance plans are reasonable and appropriate, whether the utilities have reasonably and appropriately conducted their compliance plan option analysis and optimised decision making, and especially whether the gas utilities proposed greenhouse gas abatement activities are reasonable and appropriate, both for facilities abatement and customer related abatement.

In addition, RNG results, both volumes and total costs should be reported separately, given its visibility from a policy perspective.

The utilities should be prepared to make the requested information available because it is information for past activities, the utilities are no longer the dominant purchasers in the vastly larger WCI allowance market, and the allowance auction results are already in the public record through the government's quarterly post auction reports.

3. Customer Outreach – *Are the proposed customer outreach processes and methods reasonable and appropriate?*

As far as BOMA can ascertain, there has been very little specific outreach on the cap and trade program. Customers were not asked, for example, whether they would prefer to have the cap and trade charge a separate line on their bill. The Board decided that the cap and trade levy should be included in the delivery charge portion of the bill, which renders the customer communication opaque. The inclusion of the charge as a line in the tariff does not constitute customer outreach to residential small and medium sized customers. BOMA does not fault the utilities for complying with a Board order.

Given the recent proliferation of government conservation programs funded largely by the cap and trade levies on ratepayers, the utilities should analyse on each of the government's conservation

programs, determine which ones are sufficiently close to their existing programs, or planned programs to cause confusion, negotiate with the government to jointly offer the programs, and most important, advise their customers on how they can access the programs, along with utilities' existing programs. Utilities should take a long-term view of customer engagement on carbon policy. As BOMA noted earlier in the submission, carbon policy will remain a part of government policy in Ontario in one way or another, and pressure on governments will continue to use at least a significant portion of the funds collected by tax or levy, to fund incentives for taxpayers/ratepayers to reduce carbon emissions.

4. Deferral and Variance Accounts

4.1 Are the proposed deferral and variance accounts reasonable and appropriate?

4.2 Are the proposed deferral account balances reasonable and appropriate?

4.3 Is the disposition methodology appropriate?

BOMA's principle concern with the deferral accounts is their method of disposition. BOMA's customers prefer prospective collection of deferral account balances, whether credits or debits, and, if such balances are material, recovery over a period of months through a rate rider. Larger lump sum amounts are difficult for owners (or property managers) to manage, given the large number of tenants and leases. Otherwise, BOMA supports the proposed accounts and the timing of their clearance. BOMA does not support EGD's proposal to clear deferral account balances with a lump sum payment.

5. Cost Recovery

5.1 Is the proposed manner to recover costs reasonable and appropriate?

5.2 Are the tariffs just and reasonable and have the customer-related and facility-related charges been presented separately in the tariffs?

After the end of 2018, and after it has received the utilities' annual cap and trade reports, the Board will determine the prudency of the 2018 expenditures to implement the utilities' 2018 compliance plans. The determination in this proceeding that the cost consequences of the gas utilities' compliance plans are reasonable and appropriate, does not change the need for a prudency review of the 2018 expenditures, after the year is over. The scope of the prudency review is broader than that suggested by Union in J1.2. The prudency review would consider not only whether the actual expenditures were for the purpose of implementing the plan, and whether a change in circumstances made compliance with the plan unreasonable. The prudency review would also consider the reasonableness of any overspends relative to forecast, and in general, whether the plan was executed in a prudent and reasonable manner.

EGD counsel expressed the scope of the prudency review very clearly in last year's 2017 compliance plan proceeding (EB-2016-0296, EB-2016-0300, EB-2016-0330) at Tr1, p116.

BOMA has no concerns with the tariffs, except as noted above, that the cap and trade charges, both customer related and facilities related, should be set out as separate line item(s) in the bill, and both separate from the delivery charge.

6. Implementation – *What is the implementation date of the final rates and how will the final rates be implemented?*

The Board decided to approve interim 2018 rates effective January 1, 2018. This decision will avoid any retrospective application of the 2018 rates. BOMA supports the collection of the 2018

rates on a prospective basis over the remaining months in 2018 after the Board's decision. The five months or so should be a sufficiently long period to collect the rates.

Forecasts

1.1 Are the volume forecasts used reasonable and appropriate?

1.2 Are the GHG emissions forecasts reasonable and appropriate?

1.3 Is the carbon price forecast reasonable and appropriate?

BOMA supports the volume and emissions forecasts. BOMA proposes that the 2018 carbon price should be based on the clearing price for the March 2018 auction, not on the amounts proposed by the utilities.

All of which is respectfully submitted, May 31, 2018.

Tom Brett
Counsel for BOMA

Schedule "A"

With respect to the issue of additional DSM programming, BOMA Toronto examines three key statements in its Argument in Chief: Numbered 75, 76, and 77. (Emphasis added)

> *75. While the Company understood from the Framework the importance that the Board placed on the use of and results generated by the MACC, it did go further and considered the most recent Conservation Potential Study. This analysis was provided in the response to Staff Interrogatory #24 as well as during the oral hearing. This showed the same conclusion as the analysis of the MACC that* ***incremental energy efficiency programing would not be cost effective within the Cap & Trade framework.***
>
> *76. As noted earlier Enbridge also considered the current market in which a number of major players including GreenON and the Federal Government are proposing to spend billions on energy efficiency programs[83]. As a result, Enbridge believes that greater certainty is required about the areas that these monies will be directed lest it proceed to develop and roll out a program which is ultimately rendered redundant by programs commenced by these other players. This has already occurred in respect of Enbridge's Adaptive Thermostat Program in which the Province has rolled out a program that overlaps the existing program. This has drawn into question the likely success of Enbridge's own program.* ***In short, Enbridge is concerned about directing monies into potential programs only to ultimately be crowded out of the market and unable to deliver a successful result****. This would be wasteful of ratepayer's monies.*
>
> *77. The Company also looked at the bill impacts of additional energy efficiency programming on non-program participants. While a participant in a program with a particular measure life will enjoy benefits from reduced bills over time,* ***only a small percentage of ratepayers participate in such programs****. This means that the majority of ratepayers pay for the cost of such programs and receive no or very little benefit. Undertaking materially more energy efficiency type programs that, as noted in the MACC, "are characterized by frontloaded costs and backloaded benefits" would of course layer additional costs on top of existing DSM and Cap and Trade Compliance costs with associated bill impacts.*

Taken together, these paragraphs indicate a significant fallacy (misconception, myth, error, mistake, delusion) with respect to the need to achieve more gas related conservation including energy efficiency. Please note BOMA does not consider the term conservation and energy efficiency to be synonyms. Conservation includes energy efficiency, but also considers the intensity of energy use in a given home, building or industry. However, both the DSM Framework and the MACC, modelled as they are on US based constructs are limited to cost benefit analyses of energy efficiency: i.e., getting customers to replace a less efficient piece of equipment for a more efficient model by paying an incentive to partially or fully offset the premium price that is charged for the higher efficiency product. To achieve Ontario's greenhouse gas emission reduction targets and to ensure customers are getting maximum benefits from DSM, conservation, in its broadest sense must be embraced.

To make matters worse, the current DSM evaluation framework compounds this ***higher efficiency*** approach by ignoring the broader benefits of conservation only counting savings that are either deemed, or modelled, but virtually, never metered, or measured, or maintained or managed.

Furthermore, by Enbridge's own argument "**only a small percentage of ratepayers participate in such (DSM) programs".** What is required is a rethink of DSM programs to broaden participation and increase the savings per customer rather than focusing on higher efficiency products and higher incentives.

Enbridge is correct, in fearing that the current influx of funding will crowd it out of the market for higher efficiency products. The dollar value of those programs dwarf Enbridge's annual DSM budget. However, the DSM cost benefit analysis and the evaluation construct used to estimate savings limit the value of the traditional approach to DSM in this market place.

This is not a reason to freeze spending, but it is a reason to rethink its programs and make full use of Enbridge's unique position in the market. Enbridge has a direct connection. (literally) to every one of its customers. However only a very small percentage participate in its programs. Enbridge field staff understand how and why customers use gas, but they have been limited by resources, a narrowly defined task – get customers to use higher efficiency products, and only getting credit for a small proportion of the savings that result. Savings that both the pre and post program evaluation methodology result from a combination of assumptions not from metered results.

BOMA suggests that Enbridge take advantage of government regulations such as O Reg. 397-11 and O Reg. 20-17 and their contribution to improved energy data, providing the basis for intensity-based conservation programs. Approaches have been developed for determining the reduction of energy intensity in buildings, the most substantive being Ontario Regulation 397-11 requiring public agencies to report annually to the Ministry of Energy (ENERGY) on their energy use and greenhouse gas (GHG) emissions and publish the reports on their websites. These data have been publicly available for the past five years.

Ontario has also developed the soon to be implemented Ontario Regulation 20-17: *Ontario's Reporting of Energy Consumption and Water Use* to expand the population of Ontario buildings to report this type of data. BOMA was very active in this process and is anxious that its members and all building owners in Ontario are not burdened with competing processes for reporting energy and carbon intensity with those of DSM programs.

Ontario's traditional DSM evaluation approaches are based on California Standard Practice first developed in the mid-1980s. The Standard Practice has not evolved to make use of such reporting, or even to make use of this valuable information as the basis for conservation potential studies and the determination of the cost effectiveness of conservation programs and other carbon reduction initiatives. It is still unclear how the initiatives funded by the Green Ontario Fund will be measured and verified, but BOMA suggests that a common intensity-based approach will be less expensive, more consistent, more dependable and more empowering for customers.

The experience and value added of the utilities in working with their customers on DSM projects should continue to be recognized by the DSM framework. The customer service value of maintaining the current suite of DSM programs will continue, and the gas system and the utility

companies will continue to see the integrated resource planning benefits of those conservation related activities.

BOMA suggests the following changes to the DSM Framework:

- Reporting the contribution of utility programs in terms of the reduction in carbon and energy intensity measured at the meter should replace the current input assumptions process of measurement and verification.
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- The costs of LRAM and shareholder incentives could be funded from utility revenues from those customer classes as is the current process.
- Program costs would be limited to the services of the utility energy consultants: expert advice on conservation, information on new technologies, provision of energy use data including sub-metering and facilitation of conservation projects.
- Incentives for new energy efficient equipment would no longer be paid for by the utility as the economic and financial incentive for such investments should be higher under the C&T compliance obligations. This would have the added benefit of removing the longstanding concern of the Industrial Gas Users Association with respect to intercompany competition.

Additional Information on Measuring Energy Intensity

The Toronto & Region Conservation Authority has been using energy intensity measurements for its programs such as Sustainable Schools, Greening Health Care and the Mayors' Megawatt Challenge for almost a decade. CivicAction's Race to Reduce followed the same approach. Each of these programs has achieved world-class results for their respective sectors in terms of empowering substantial, real savings measured at the meter. Measurement includes both energy intensity reductions and utility cost savings as well as the impact on greenhouse gas emissions. The description of the process and application of energy intensity measurement is described below.[1]

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Toronto & Region Conservation is pleased to announce the top twenty most energy efficient school boards in Ontario, based on reported data for the September 2014 – August 2015 school year.

The report uses analysis of energy use and building information for Ontario's 5,000 schools and board administration buildings, as publicly reported by the 72 school boards. Energy targets are set for every building based on top quartile (good practice) standards, normalized for building type and area, weather differences and many site-specific variables. The energy savings potential is determined for each building as the difference between actual energy use and the

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target, and the energy efficiency of the school board is determined by rolling up results for all their buildings. For the white paper outlining the methodology, visit www.sustainableschools.ca.

The Top Twenty School Boards: The savings potential across all boards ranges from a little over 10% for the most efficient to more than 40%. The top twenty boards with the least savings potential are recognized below, along with their rankings in the 2016 report, and their remaining potential for energy, utility cost and greenhouse gas emissions savings.

The total energy savings potential across all boards is 29.8%, worth over $70 million annually at 2015 utility rates, accounting for 294,000 tonnes of avoidable greenhouse gas emissions. Natural gas has a bigger percentage savings potential than electricity, and offers the larger share of emissions reductions.

Every school board, even the top-performers, has individual buildings with high savings potential which are identified through this analysis. The best way to achieve the greatest energy, economic and environmental returns is to focus resources on these high-potential buildings. Across all of Ontario's boards, 41% of buildings (1,987 facilities) have annual utility cost savings potential of $10,000 or more, and account for 83% of total utility cost savings and 72% of greenhouse gas emissions reductions.

A major benefit of shifting to measurement and verification of energy savings based on metered data rather than assumptions and calculations is that it enables whole sector reporting, rather than just the buildings which made use of utility company DSM programs. It is likely that most buildings which received incentive payments under DSM programs achieved savings (the amount of which can now be readily verified through the Green Energy Act data). However, other buildings had increases for operational and maintenance reasons, resulting (for example) in a net increase in weather-normalized gas consumption and emissions for the schools' sector in 2014-15 compared against 2013-14 (as reported in the 2017 Sustainable Schools report). Such absolute, whole sector reporting of natural gas use and emissions is essential for verifying compliance with Ontario's greenhouse gas emissions reduction targets.

Intensity-based Performance Metrics for Shareholders' Incentives

Currently, shareholder incentives are based on scorecards which are a mixture of estimated savings (m^3), participation targets and activity-based counts. Changing to intensity-based performance metrics can readily be implemented by embracing performance-based conservation in which the results are measured by metered data, not estimates and assumptions.

Metrics could be developed that reward utilities for helping the lowest quartile of customers (with the greatest savings potential) achieve energy intensity equal to or better than the top quartile of customers, or to help any customers below the median achieve a given percentage of improvement. In any event, the utilities should be targeting the most energy intensive buildings first.

The evidence cited below illustrates the distribution of a typical cohort of customers in the commercial sector in terms of energy intensity.

Sector: Office Buildings

Number of buildings: 123

Total building area, ft2: 42,000,827

Gas usage	Savings potential, % at the attainment of	
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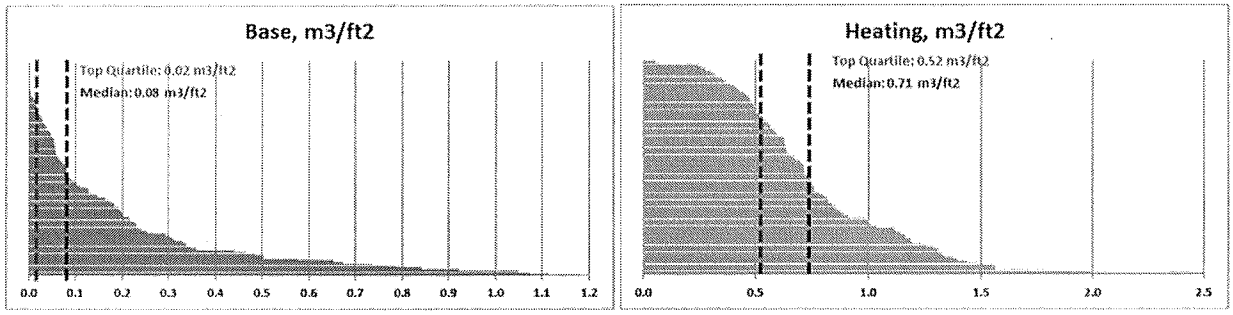


In 2013, Environmental Defense submitted evidence to proceeding EB- 2012-0451 Enbridge Gas Distribution Inc. ("Enbridge") which suggested how this can be done.[2]

Performance Based Conservation

Performance based conservation begins with identifying high energy intensity buildings through benchmarking, and then works systematically towards identifying and fixing the inefficiencies causing the high use in each individual building. The nature of the inefficiencies runs the range of errors in design and construction, through equipment deterioration over time, to changes in use and operation of the building, and poor performance of controls and automation systems. It is the compound effect of these problems that leads to gas use levels in some buildings which are ***3 to 5 times*** *(emphasis added) what is needed and already achieved by comparable, more efficient buildings.*

Fixing these problems requires a systematic methodology. The work involved in equipment repairs and replacement, right-sizing and rebalancing, refurbishment and re-programming, typically provides relatively short payback periods.

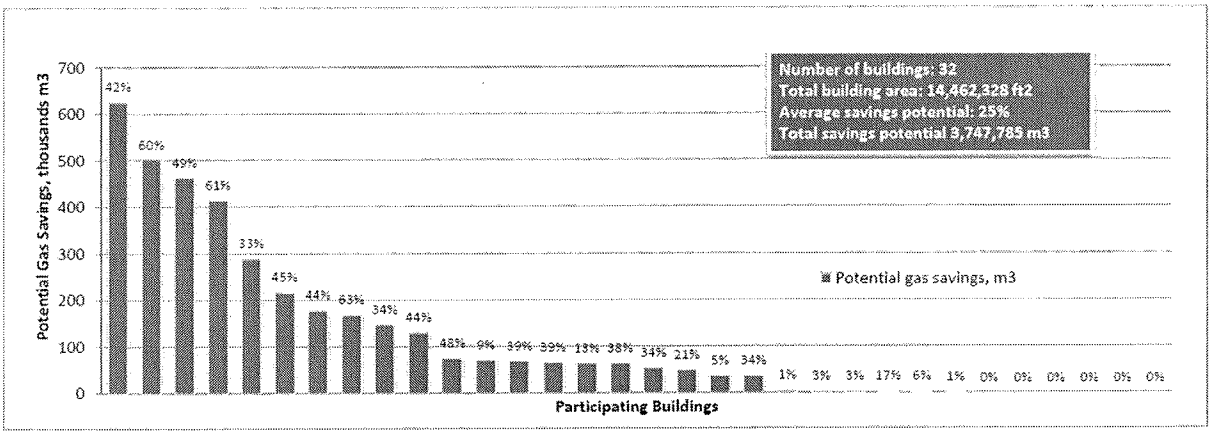
Performance-based conservation begins with identification of buildings with the greatest potential for savings. Enerlife piloted this approach in 2012 on behalf of Enbridge, through a workshop provided to Race to Reduce participants that addressed 31 commercial office buildings with a total area of over 14 million square feet.

Benchmarking and target-setting identified the range of gas savings potential shown in the chart below. The analysis for each building was provided to the participant in a standardized energy assessment report. A facilitated workshop then provided training in which specific measures were indicated to achieve the targeted savings in each building, enabling each *participant to produce their own customized gas conservation action plan, and enabling Enbridge Energy Solutions Consultants to follow up with technical and incentive support to deliver the savings.*

[2] EB-2012-0451, EB-2012-0433, EB-2013-0074, Filed: 2013-06-28, Exhibit L.EGD.ED.1

Race to Reduce - Gas Conservation Action Plan Workshop Results

December 2012



This illustrates the importance of identifying buildings in each sector with the greatest potential gas savings. In contrast to the premise of current DSM programs, with performance-based conservation all buildings are NOT equal. Some have considerable gas reduction potential while others have little or none. Applying this performance-based approach across each building sector will enable Enbridge to focus its efforts on customers and buildings with the greatest DSM potential, and help them identify the specific actions and measures which will achieve the greatest savings results.

If this approach was applied to the GTA project influence area, using Enbridge's derived 2012 Customer Counts and the Performance-based model forecast of savings, 70,041 customers (including 40,334 residential) would provide 48% of savings.

Identifying and addressing inefficiencies requires a savings focused approach to DSM. Trained people with skill sets of energy analysts, commissioning agents and energy efficiency engineers, focused on getting to energy savings as quickly as possible, are needed to work with building operations staff to deliver the savings in every high potential building, thereby contributing to the greatest extent possible to meeting Ontario's emissions reduction targets. Such outcomes-based strategies and incentives prioritize scheduling optimization, maintenance and control improvements and other savings opportunities that use lower cost technology to achieve the biggest saving, can be implemented quickly and have the best economic returns on investment.

Schedule "B"

With respect to the issue of additional DSM programming, BOMA Toronto has comments on the following numbered paragraphs in Union's Argument in Chief:

> *50. Union's existing DSM programs pursue the most cost-effective abatement opportunity from a Total Resource Cost ("TRC")/Societal Benefit perspective.95 Union assessed the cost-effectiveness of investing in incremental energy efficiency programs using the OEB's LTCPF and MACC as a principal tool, as well as the CPS as a secondary tool. Applying this analysis mandated by the Board, Union determined that there is no cost-effective incremental energy efficiency that is prudent to pursue in 2018.*
>
> *51. At the hearing, there were a number of questions directed to whether Union should have used the CPS instead of the MACC in assessing the availability of incremental abatement, as Mr. Chris Neme has done on behalf of ED and GEC. This would have been inappropriate. As Mr. Ginis testified: "We used the MACC, and we also used the CPS. The MACC was identified in the Board's framework as the principal tool to be used in this proceeding. The CPS was developed in advance of the cap-and-trade framework, and it was developed specifically for the DSM Framework." 97*
>
> *52. Unlike the CPS, the MACC was developed at the OEB's direction specifically for the purpose of assessing incremental abatement opportunities for the purpose of the Cap-and-Trade program, as distinct from the DSM program.*
>
> *53. The MACC was developed by ICF at the direction of the OEB and was adopted by the OEB. In its letter of July 20, 2017, the OEB stated: "The [OEB] is issuing a report developed by ICF Consulting Canada Inc. which provides a Marginal Abatement Cost Curve (MACC) for natural gas abatement activities in Ontario. The MACC provides a basis for comparison of the relative cost-effectiveness of a range of GHG abatement activities. The OEB adopts the MACC for its stated purpose."*
>
> *54. Union used the OEB-approved MACC as the primary tool in assessing whether any prudent incremental abatement opportunities were available to be pursued through the Cap-and-Trade Framework. Applying the MACC, Union concluded that there were no such opportunities.*
>
> *55. Contrary to the clear direction in the OEB's Cap-and-Trade Framework that the Utilities are to use the MACC in assessing incremental abatement opportunities, the analysis of incremental abatement potential put forward by Mr. Neme does not use the MACC at all, but rather uses the CPS exclusively.100 The analysis set out by Mr. Neme is contrary to the direction in the OEB's Cap-and-Trade Framework.*
>
> *56. In response to questions at the hearing, Mr. Ginis made clear that it would not have been appropriate for Union to use a tool other than the MACC (such as the CPS) as the primary tool to assess whether any incremental abatement*

opportunities could be prudently pursued: "the MACC was developed merely months in advance of us filing this plan. It was developed specifically for this framework, so to not use it...would not be appropriate. We can use other things. However, what we're saying is that it would be most appropriate to use the MACC. And an assessment that doesn't use the MACC, I think would be difficult to say complies with the framework." "I think it would have been very difficult for us to justify adding incremental abatement programs when the MACC showed that we are surpassing that with our DSM Framework."

Taken together, these paragraphs indicate a significant fallacy. Ontario doesn't need to find new cost-effective measures that pass either the DSM test (TRC) or the Cap and Trade test (MACC). Ontario needs to drive conservation rather than limiting its DSM or Cap and Trade efforts by to only on energy efficiency.

Please note BOMA does not consider the term conservation and energy efficiency to be synonyms. Conservation includes energy efficiency, but also considers the intensity of energy use in a given home, building or industry. However, both the DSM Framework and the MACC, modelled as they are on US based constructs are limited to cost benefit analyses of energy efficiency: i.e., getting customers to replace a less efficient piece of equipment for a more efficient model by paying an incentive to partially or fully offset the premium price that is charged for the higher efficiency product. To achieve Ontario's greenhouse gas emission reduction targets and to ensure customers are getting maximum benefits from DSM, conservation, in its broadest sense must be embraced.

To make matters worse, the current DSM evaluation framework compounds this ***higher efficiency*** approach by ignoring the broader benefits of conservation only counting savings that are either deemed, or modelled, but virtually, never metered, or measured, or maintained or managed.

Finding new cost-effective measures using either the MACC or the CPS is not the answer. What is required is a rethink of DSM programs to broaden participation and increase the savings per customer rather than focusing only higher efficiency products and higher incentives.

BOMA suggests that Union take advantage of government regulations such as O Reg. 397-11 and O Reg. 20-17 and their contribution to improved energy data, providing the basis for intensity-based conservation programs. Approaches have been developed for determining the reduction of energy intensity in buildings, the most substantive being Ontario Regulation 397-11 requiring public agencies to report annually to the Ministry of Energy (ENERGY) on their energy use and greenhouse gas (GHG) emissions and publish the reports on their websites. These data have been publicly available for the past five years.

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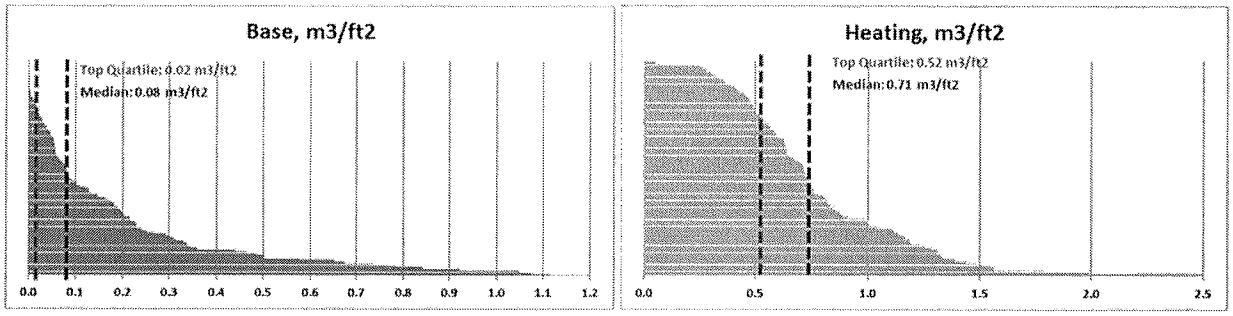

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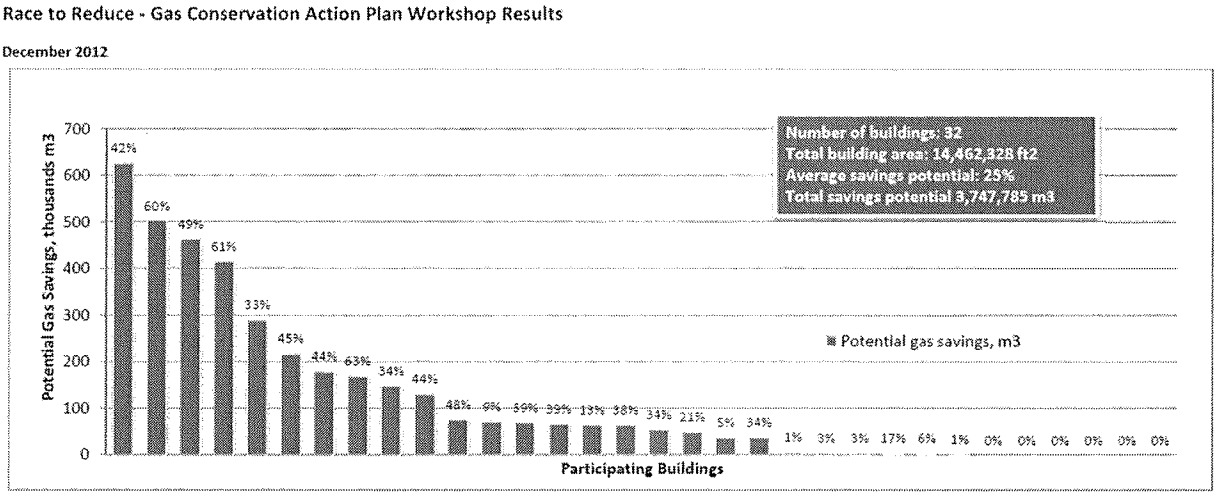

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