

26 January 2018

Ontario Energy Board  
2300 Yonge St., 27<sup>th</sup> Floor  
Toronto, ON  
M4P 1E4

Attn: Ms Kirsten Walli  
Board Secretary

By electronic filing and e-mail

Dear Ms Walli:

**Re: EB-2017-0224, EB-2017-0255, EB-2017-0275 – GEC Interrogatories to Enbridge**

Attached please find GEC's interrogatories to Enbridge.

Sincerely,

A handwritten signature in black ink, appearing to read "David Poch". The signature is fluid and cursive, with the first name "David" and the last name "Poch" clearly distinguishable.

David Poch

Cc:  
Enbridge  
Union  
Valerie Bennett  
Ljuba Djurdjevic  
Lawren Murray  
all parties

## Ontario Energy Board

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

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

### Interrogatories from GEC to Enbridge Gas Distribution Inc.

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

1. At Exh B, Tab 1, Sch 1, Enbridge states that “although the Company is submitting a one-year Compliance Plan”, it “uses a longer planning horizon when considering financial instrument planning and investments that involve customer and facility abatement.”
  - a. Please provide a summary explanation of how the Company does this.
  - b. In developing its 2018 Compliance Plan, did the Company assign value to measures or strategies that if implemented in 2018 would provide carbon emission reductions not only in 2018 but in subsequent years as well? In other words, did the Company value a strategy that reduced carbon emissions for 5 years more than one that reduced carbon emissions – or enabled the Company to meet carbon emission obligations, such as through purchase of emission allowances – for only one year?
  - c. If the answer to part “b” of this question is yes, how was that done? For example, did the Company develop estimates of multi-year streams of costs, carbon emission reductions, and other benefits for each measure or strategy considered for implementation in 2018 and then compare the net present value (NPV) of costs per lifetime ton of carbon emissions avoided or offset? Or did it compute a levelized cost per ton of carbon emissions avoided or offset? If it did neither of these things, what form of analysis did it perform to compare the relative costs of different potential strategies? Please provide copies of all such analyses, in Excel with formulae intact. If parts of any such analyses are deemed

confidential, please provide portions that are not confidential, as well as a hypothetical example of how the confidential portions of the analyses were conducted (i.e. absent the confidential assumptions).

2. At Exh. C, T 1, S 1, p. 6, Enbridge states that it retained Alpha Inception LLC to develop a “Carbon Market Report” and a “Carbon Strategy Report”. Please provide the scopes for work for these two products.
3. At Exh. C, T 1, S 1, p. 7, Enbridge states that “with the Guiding Principal of cost-effectiveness top of mind, Enbridge will aim to minimize the costs of meetings its compliance obligation.”
  - a. What does the Company mean by “cost-effectiveness” in this statement? Please include in the response whether it means lowest lifecycle cost or lowest first year cost per ton of carbon. Please also include in the response whether it means lowest utility cost per ton of carbon (i.e. akin to the utility cost test in DSM terms) or lowest societal cost per ton of carbon (i.e. akin to the TRC or Societal Cost tests in DSM terms).
  - b. Please explain what analysis the Company performed to compare the costs per ton of carbon of different compliance measures or strategies.
  - c. Please provide all such analyses in Excel, with formulae intact. If parts of any such analyses are deemed confidential, please provide portions that are not confidential, as well as a hypothetical example of how the confidential portions of the analyses were conducted (i.e. absent the confidential assumptions).
4. At Exh. C, T2, S 1, p. 1, Enbridge states that it “will only procure compliance instruments that can be used to meet the Company’s compliance obligation, are readily available, are a reasonable cost option with a reasonable risk profile...”
  - a. How does Enbridge define “reasonable cost option” in this statement?
  - b. Please explain how the Company defines “reasonable risk profile” in this statement?
  - c. What did the Company do to compare the risk of different potential compliance options, including both the purchase of emission allowances and the pursuit of customer and facility abatement options? Was risk quantified in any way? If so, how?
  - d. Please provide any analysis of comparative risk of compliance measures that the Company performed.

5. In response to Staff Interrogatory 1(a), which asked the Company to “provide any analysis, with underlying assumptions, that Enbridge Gas has done with respect to the cost-effectiveness of RNG versus other abatement options”, the Company provided a short narrative making reference, among other things to the MACC. However, the Company did not provide any specific numerical assumptions, calculations, Excel files or other forms of analysis. Please confirm that this means the Company did not perform any quantitative analysis itself to assess cost-effectiveness and/or to compare the costs per unit of carbon emission reductions that would be provided by different potential abatement options? If not confirmed, please explain what quantitative analysis the Company did perform, and provide the analysis, including all assumptions.
6. The MACC results are presented in terms of utility costs rather than societal costs.
  - a. Does Enbridge agree that “utility cost” is the best cost metric for informing decisions regarding which carbon emission compliance options should be pursued? If not, why not?
  - b. If the answer to part “a” of this question is yes, does the Company believe that the test Ontario uses to assess cost-effectiveness of energy efficiency be changed to the Utility Cost Test? If not, why should the test used to determine which efficiency resource merit investment be different than the test used to determine which other gas utility resources merit investment?
  - c. If the answer to part “a” of this question is yes, does the Company agree that any efficiency resource whose utility cost per ton of GHG emission reduction is lower than other alternatives should be procured? If not, why not?

**Issue 1.10 - Are the gas utility’s proposed greenhouse gas abatement activities reasonable and appropriate?**

7. At Exh B, T2, S, p. 2, Enbridge states that the “partially effective volumetric reduction” associated with its 2018 DSM plan is  $31,139 \times 10^3 \text{m}^3$ .
  - a. Please explain what “partially effective volumetric reduction” is. Is it an estimate of total savings for the year that adjusts for the fact that efficiency measures promoted through the program are installed throughout the year (e.g. some in January, some in July, some in December, etc.), with measures installed earlier in

the year providing more savings during the calendar year than those installed at the end of the year? If not, please explain.

- b. Please explain how the “partially effective volumetric reduction” is computed? For example, does the Company assuming that 1/12 of measures are installed each month, or does it forecast savings by month to account for historical patterns regarding when measures are installed, or does it do something else?
  - c. Please provide the specific assumptions and calculations that led to the estimate of 31,139 10<sup>3</sup>m<sup>3</sup>. Please provide them in Excel, with formulae intact.
  - d. Please provide a breakdown of the 31,139 10<sup>3</sup>m<sup>3</sup> by program.
8. Union Gas notes (at Exhibit 3, Tab 1, Page 9 of 24) that “Union and EGD have developed the AC to support development of new technologies over the long-term, including the pursuit of abatement initiatives that may not be cost-effective and that will require alternative funding models (i.e. CCAP, GreenON, and federal funding) to proceed;”
- a. Has Enbridge discussed such options with government entities?
  - b. Please list all meetings between the company and government entities during 2016 and 2017 where government and/or utility energy efficiency or other (non-RNG) GHG reduction efforts or potential efforts were discussed.
  - c. Please provide copies of all correspondence sent or received between the company and government entities during 2016 and 2017 where government or utility energy efficiency or other (non-RBG) GHG reduction efforts or potential efforts were discussed.
9. At Exh C, T 5, S 1, pp. 4-5, Enbridge states that “abatement programs should be able to draw on a variety of funding sources...” and “where appropriate, an abatement program proposal will be supported by an assessment which may use a range of funding models and appropriate valuations and assumptions.”
- a. Is Enbridge suggesting that the ability to “draw on a variety of funding sources” presented is a desirable “end” or rather that attempting to leverage other funding sources should be a standard practice to keep ratepayer costs as low as possible (i.e. a “means to an end”)? For example, if hypothetical Strategy A had to be paid for entirely by gas ratepayers and cost \$10 per ton of carbon emission reduced, would it not be preferable over hypothetical strategy B whose costs would be split 50/50 between gas ratepayers and other sources but had a total cost of \$30 (and therefore \$15 of ratepayer funds) per ton of carbon emission reduced.
  - b. When choosing between strategies, does Enbridge believe it is appropriate to consider only the utility cost per unit of carbon emission reduction, or the full

societal cost per unit of carbon emission reduction, when determining which strategies are preferable? For example, would hypothetical Strategy A that had to be paid for entire by gas ratepayers and cost \$10 per ton of carbon emission reduction be preferable or less desirable than hypothetical Strategy C whose costs would be split 20/80 between gas ratepayers and government and/or other funding sources but had a total cost of \$25 (and therefore \$5 of ratepayers funds) per ton of carbon reduced. Please explain the Company's rationale.

- c. What does the term "assessment" in the cited text mean? Is it a comparative analysis of costs per unit of carbon emission reduction? If not, what is it?
  - d. Under what conditions does the Company believe that it would be "appropriate" for an abatement program proposal to be supported by an assessment?
  - e. Please provide copies of all such "assessments" of compliance options conducted by Enbridge for its 2018 Compliance Plan.
10. At Ex. C, Tab 5, Sched. 1, pp. 4-5 Enbridge lists attributes of its Abatement Construct, including: "Efficient and rational development: Abatement programs should balance customer cost impacts by leveraging existing infrastructures (particularly utility infrastructure, including physical, brand, billing, program delivery) where appropriate and by not duplicating existing frameworks (e.g. DSM)." Please elaborate on the goal of not duplicating the existing DSM framework. Specifically:
- a. Would increasing participation and reducing free ridership by using government program funding to increase customer incentives comply with or conflict with this goal? Please explain the reasoning for the Company's answer.
  - b. Would increasing financial incentive levels currently paid by the Company (or planned to be paid under its current DSM plan) in order to increase participation, savings and therefore carbon emission reductions from a given measure, set of measures or programs comply with or conflict with this goal? Please explain the reasoning for the Company's answer.
  - c. Would promoting a new technology or program not currently part of the Company's approved DSM plan in order to generate additional savings and carbon emission reductions comply with or conflict with this goal? Please explain the reasoning for the Company's answer.
11. At Ex. C, Tab 5, Sched. 1, pp. 10-11, Enbridge cites the 2017 LTEP as saying that "...we must use (natural gas) as efficiently as possible..." How does Enbridge interpret the statement "as efficiently as possible"? If the Company interprets it as anything other than capturing all efficiency resources that are cost-effective, including the cost of avoided carbon emission compliance costs, please explain why.

12. At Ex. C, Tab 5, Sched. 1, p. 15 Enbridge notes: “As described in Exhibit C, Tab 5, Schedule 2, Enbridge concluded that **additional DSM programs** would not be cost-effective; in some cases the marginal costs of **new programs** may be higher than the cost of compliance instruments.” (emphasis added)

- a. Is the reference to ‘new programs’ inclusive of the option of enhancing existing program uptake (e.g. with increased financial incentives, increased marketing and/or other program design changes or enhancements) with or without government support? If not, was that option analysed? If so, please provide any analyses undertaken. If that option was not analysed, please indicate why not.
- b. Please explain how Enbridge is defining the term “cost-effective” in the cited statement. Specifically, which of the following potential categories of benefits and costs are included:

Benefits

- i. Avoided carbon emission permit costs,
- ii. avoided energy costs,
- iii. avoided T&D costs,
- iv. price suppression effects from lower demand,
- v. any other gas utility system cost savings,
- vi. electricity or water cost savings,
- vii. customer non-energy benefits (e.g. improved comfort or improved business productivity)
- viii. societal non-energy benefits (e.g. reduced emissions of pollutants other than greenhouse gases)
- ix. other (please specify)

Costs

- i. DSM program costs,
  - ii. Customer contributions to measure costs (i.e. the portion of measure cost not covered by utility financial incentives)
  - iii. Other (please specify)
- c. Please explain what is meant by the “marginal costs of new programs”. Please give a concrete example to illustrate what is meant.
  - d. What is the “cost of compliance instruments” to which Enbridge is referring in this cited statement? Is it the cost of carbon emission allowances? If not, please explain?
  - e. Which of the costs and benefit categories listed above in part b. does Enbridge understand were captured in the MACC? Which in the CPS?

- f. The statement that “in some cases” costs of more DSM may be higher than the cost of compliance instruments would appear to imply that in other cases costs of DSM would be lower. Please indicate which additional DSM resources – either by program or measure – and how much additional DSM resources (in first year m3 saved, lifetime m3 saved and carbon emissions reduced) Enbridge has estimated to be either (1) more expensive or (2) less expensive than the cost of other compliance instruments.
  - g. Please provide all analysis, including assumptions and the sources of those assumptions, underlying the conclusions that additional DSM programs would not be cost-effective and/or that marginal costs of additional DSM may be higher than the cost of compliance instruments. If any analysis was conducted in Excel, please provide the Excel workbook file(s) in native format with all formulae intact.
- 13. At Ex.C, Tab 5, Sched. 2, p.1 Enbridge notes: “Since the Government announced its Climate Change Action Plan (“CCAP”), the Company has been responsive to evolving Government objectives and has made several proposals to advance energy efficiency in the province.” Please provide the details of all such proposals that have been made or are currently under development and provide any materials produced in support of such proposals.
- 14. At Exh C, T5, S2, p. 10, Enbridge’s describes how its proposed RNG procurement model would work. Why is the Company not asking for approval of a similar model for funding additional energy efficiency resources?
- 15. At Exh C, Tab 5, Sched 2, p. 16, Enbridge discusses its proposed Geothermal Energy Service program. Under which conditions would the Company believe it to be appropriate to promote geothermal heating and cooling to its customers. For example, if cold climate air source heat pumps would be more economical for any categories of buildings, would the Company promote them instead? If not please explain why not?
- 16. At Exh C, Tab 5, Sched 2, pp. 19-21, Enbridge discusses the net zero ready (NZR) program.
  - a. In paragraph 62, it discusses micro generation, using natural gas to produce electricity and heat, as part of the program. Please explain how a building could be net zero energy if it is burning natural gas on-site to meet its energy needs. Why wouldn’t the Company instead promote new construction practices that were efficient enough to rely exclusively on the newest generation of very

efficient electric heat pumps, with enough on-site renewable energy generation to offset the building's entire electric load?

- b. In paragraph 64, the Company explains that a 1.5 kW micro generation unit can produce GHG reductions of 0.7 to 1.0 tCO<sub>2</sub>e per year "by operating the unit during peak periods, to offset grid connected gas power generation plants".
    - i. Please provide the calculations underpinning this conclusion. Please also provide all key assumptions, including but not limited to assumptions regarding the heat rate (i.e. BTUs in per kWh of output), amount of heat produced per kWh, and annual hours of operation of the micro-generation unit, as well as the heat rate of the gas-fired power plant assumed to be offset.
    - ii. Would an on-site, natural gas driven micro generation unit produce more GHG reductions than a cold climate air source heat pump or a geothermal heat pump? Please provide assumptions and calculations supporting the Company's response.
    - iii. What is the cost of a 1.5 kW micro generation unit? Please provide supporting documentation for the Company's response.
17. At Exhibit C, tab 5, Schedule 2, p. 22 Enbridge states that the GHG savings from a residential gas-fired heat pump "could range from 0.8 – 1.5 tCO<sub>2</sub>e per year" relative to a new ENERGY STAR rated gas furnace.
- a. Please provide the calculations underpinning this conclusion. Please also provide all key assumptions, including but not limited to assumptions regarding the gas heat pump Coefficient of Performance (COP) and assumed building heating load in BTUs per year.
  - b. What is the basis for the Company's assumption regarding the gas heat pump COP provided in response to part "a" of this question?
  - c. What is the current cost of a gas-fired heat pump for residential applications?
  - d. How much more expensive than an Energy Star rated gas furnace is a gas-fired heat pump?
18. At Exhibit C, Tab 5, Schedule 2, pp. 22-23, Enbridge discusses "expanded use of natural gas as a vehicle fuel". Has the Company conducted any comparative analysis of the cost and carbon impacts of switching to electricity instead of to natural gas to run trucks and buses? If so, please provide such analysis.
19. At Exhibit C, Tab 5, Sched 2, pp. 25-26, Enbridge observes differences between the MACC study results, the Conservation Potential Study results and its own DSM efforts

and states that “At a minimum, this analysis serves as a reminder that in designing and deploying DSM to date, Enbridge has been aggressive in its pursuit to reduce volumes and emissions through the most cost-effective opportunities available.”

- a. Outside of its review of the MACC and Conservation Potential Study, has Enbridge analyzed the extent to which it could increase DSM savings by expanding its own DSM plans, whether through the addition of new measures or programs, through increased financial incentives for measures and programs already part of its DSM portfolio, through increased marketing of its existing DSM programs and/or through other means? If so, please provide the results of that analysis, including the potential increase in savings and spending required to achieve it, as well as all underlying analysis and assumptions.
- b. If the Company has not conducted the analysis referenced in part “a” of this question, please provide the Company’s qualitative opinion regarding whether it could acquire additional energy savings cost-effectively. Please explain the basis for this opinion, and include in the response how the Company defined cost-effective.
- c. If the Company has not conducted the analysis referenced in part “a” of this question, please provide the Company’s qualitative opinion regarding whether it could acquire additional energy savings cost-effectively, where cost-effective is defined as having a benefit cost ratio of greater than 1.0 under the Utility Cost Test (UCT), including avoided carbon emission allowance purchases. Please explain the basis for this opinion.
- d. Would the Company agree that if it could increase cost-effective DSM savings, that acquisition of such additional savings would impose fewer costs on its ratepayers as a whole than:
  - i. carbon emission allowance purchases; or
  - ii. any of the abatements strategies included in Stages 1, 2, and 3 of the Company’s Cap and Trade plan (see Exh C, Tab 5, Sched 2, Table 1 p. 3)?

If not, please identify each specific proposed plan strategy that the Company believes would impose lower costs on ratepayers as a whole than additional cost-effective efficiency resource acquisition, provide an explanation for why the Company believes that strategy would impose lower costs on ratepayers as a whole than additional cost-effective efficiency resource acquisition, and provide all analysis and assumptions (in Excel with formulae intact) that the Company has conducted to support its conclusion.

If the Company’s response is different depending on whether cost-effectiveness is defined using the TRC or UCT, please provide the response both ways.

- e. If the Company believes that it could increase cost effective DSM savings, please explain why such an increase was not included in its proposed list of abatement measures in its 2018 carbon cap and trade plan.
20. At Exhibit C, Tab 5 Schedule 2, p. 25 the company says: “75. An analysis of the MACC study results as compared to the Company’s DSM plans shown in Table 3 below indicates that Enbridge’s current DSM Plan delivers results for ratepayers that are well in excess of what the MACC study would otherwise indicate is cost-effective under a Mid-Range LTCPF scenario. At present, Enbridge does not have sufficient insight into the underlying analysis of the MACC study to fully understand what is driving the clear differences between the MACC study results, the Conservation Potential Study results and the Utilities’ DSM Plans.”
- a. Why did Enbridge not investigate the reasons for this result? Has the company done so since filing its application (perhaps in preparing its mid-term review filing)? If so, please provide your current understanding. If not, why not?
  - b. Is it the company’s understanding that the MACC includes or excludes the avoided costs of DSM (apart from the avoided C&T compliance costs)?
  - c. Does the company agree that DSM can be cost effective even though the utility costs of the DSM are higher than the avoided cost of allowances or credits?
21. At Exhibit C, Tab 5, Schedule 2, Page 26, Enbridge cites the Board’s observation that “[the Board] is confident that any potential overlap can be appropriately addressed through the robust Evaluation, Measurement & Verification (“EM&V”) process of the DSM Framework.” Enbridge then states that it “believes that managing any overlap via the EM&V process will be overly complex and difficult.”
- a. What are the implications of this perspective? Has this issue limited Enbridge’s pursuit of, or proposing of, the enhancement of existing DSM efforts (either with or without government support) to date?
  - b. Does Enbridge propose to preclude GHG abatement activity that overlaps with DSM programs? If not, how does Enbridge propose to manage overlapping efforts and to evaluate results other than with the EM&V process? In responding to this request please consider the situation where existing DSM program performance is enhanced by way of increased customer incentives funded by a government program as well as the situation where economies of scope or scale are obtained by co-delivering existing DSM program measures with new GHG Abatement efforts (however funded).

22. At Exhibit C, Tab 5, Schedule 2, pp. 28-29, the Company discusses its inclusion of the Green Investment Fund (GIF) Residential Energy Efficiency as part of its Cap and Trade Plan. In that discussion, the Company states that the program is “similar to Enbridge’s existing DSM offer, the Home Energy Conservation program”, and also promotes the deployment of Adaptive Thermostats, which is “consistent with the Company’s DSM program”.
- a. Please explain how the GIF program and the Company’s programs promoting the same (or very similar) efficiency measures and services will function in parallel and/or be integrated.
  - b. How will participants, savings and carbon emission reductions from the GIF program be tracked and evaluated separately from Enbridge’s Home Energy Conservation program and its existing DSM efforts to promote Adaptive Thermostats?
  - c. If the Company can manage to separately track savings and carbon emission reductions from the GIF program and its existing DSM programs, why would separately tracking savings and carbon emission reductions from expansions of its other existing DSM offerings be “overly complex and difficult” (Exh C, T5, S2 p. 26)? What would be different about expanding other programs that would make assessment of additional savings and carbon emission reductions so much more complex and difficult than for expansion of Enbridge’s residential retrofit program?
23. At Exh C, Tab 5, Sch 2, pp. 27-28, Enbridge summarizes three recommendations it has made for the DSM mid-term review which it believes will achieve better alignment between Cap and Trade and DSM frameworks “and maximize benefits for all parties”. The second of those recommendations is to “re-align DSM budgets and targets to recognize the increased need for a robust DSM presence in the energy efficiency market as a result of Cap and Trade”. Please clarify what the Company means by this statement.
- a. Is the Company suggesting that DSM budgets and targets should be increased? If not, what is the Company suggesting with regards to how DSM budgets and savings targets should change to reflect “the increased need for a robust DSM presence in the energy efficiency market as a result of Cap and Trade”?
  - b. If the Company is suggesting that DSM budget and targets should be increased, what principles does the Company believe should guide decisions regarding how much they should be increased? For example, does the Company believe that they should be increased to the point where all efficiency resources that are cost-effective (including avoided need to purchase carbon emission allowances)

should be acquired? If so, using what definition of cost-effectiveness? If not, why not?

24. Regarding the Company's use of the MACC results to determine whether additional efficiency savings could be cost-effectively acquired:
- a. Is it accurate to say that the MACC study used efficiency potential identified in the Conservation Potential Study?
  - b. Is it accurate to say that the Conservation Potential Study (CPS) quantified efficiency that was cost-effective based on the TRC test?
  - c. Is it accurate to say that the Company is assessing cost-effectiveness of potential carbon abatement strategies using the equivalent of the utility cost test (UCT) – i.e. by comparing only the cost the utilities must incur to reduce or offset carbon emissions, and not including other costs borne by Government and/or other parties for those measures or strategies?
  - d. If the answers to the three questions above are all “yes”, wouldn't the CPS and MACC study understate cost-effective efficiency potential – perhaps even by a very large amount – because it did not consider how much savings could be acquired if cost-effectiveness was based on the UCT (given that utility costs are often much lower than TRC cost)?
25. In response to Staff Interrogatory 1(c), which asked for all information underlying the Company's conclusion that “additional DSM programs would not be cost-effective; in some cases the marginal costs of new programs may be higher than the cost of compliance instruments”, the Company makes reference only to the MACC results and a comparison of those results to the savings estimates currently forecast for its DSM programs as shown in Table 3 of Exh. C, T5, S2 (p. 26). Is the analysis provided in the referenced Table 3 the sole basis for the Company's conclusion? If not, please explain and provide any other analyses conducted.
26. In response to Staff Interrogatory 1(d), Enbridge provided a September 2017 presentation. On slide 5 of the presentation there is a statement that suggests that a dual-fuel system that relies on electric air source heat pumps on most days and gas on the coldest days results in a “60% reduction in GHE's” and “less than ½ lifecycle cost of full electric air source heat pump”.
- a. Please provide the analysis, including all assumptions, underpinning these two statements.
  - b. What type of air source heat pump was Enbridge assuming to be deployed in this analysis? Was it the cold climate models that can produce heat without electric resistance back-up even at temperatures below -20 C?

27. Regarding Enbridge's recent energy efficiency program performance, please provide an Excel file with all of the different efficiency measures promoted by the Company, the number of participants by measure and program, both gross and net savings per measure and program, rebate/incentive dollars per measure and program, other costs per program, measure life per measure and program, NPV of the value of savings per measure and program, and NPV of TRC costs per measure and program for all of 2017 and all of 2016 (separately for each year). The information for custom C&I can be provided in aggregate for the program (rather than by measure or project).

28. At Exhibit C, Tab 5, Schedule 2, pp. 27-28 Enbridge states "the Company believes the Board has an opportunity to ensure that the existing DSM Framework does all that it can to support a level of abatement activity that produces the best value for ratepayers." and goes on to list a number of proposed changes to its DSM plan that it is pursuing in its EB-2017-0128 Mid-Term DSM filing.

Has Enbridge assessed whether there is incremental opportunity for savings due to the C&T obligations and the changing context as part of its Mid-Term DSM filing, and if so, what added savings and carbon abatement has been identified and what added savings and carbon abatement (and related measures, targets and budgets) have been proposed in that filing?

29. At Exhibit C, Tab 5, Schedule 2, at Page 25 Enbridge states: "At present, Enbridge does not have sufficient insight into the underlying analysis of the MACC study to fully understand what is driving the clear differences between the MACC study results, the Conservation Potential Study results and the Utilities' DSM Plans."

At Page 28 Enbridge states: "In summary, the Company believes that DSM should be considered a vital part of its overall long-term Compliance Plan. This is especially so where the results from incremental conservation and energy efficiency are known to be more cost effective over the long term than the purchase of compliance instruments. Enbridge reviewed the MACC relative to current DSM targets and found that all cost effective savings are already captured."

- a. Please reconcile these two statements. Specifically, how did the company conclude (based on the MACC) that all cost effective savings are already captured when it does not fully understand what is driving differing results in the analyses?
- b. Since filing the current C&T application, has Enbridge investigated and obtained a full understanding of the MACC study as part of its preparation for the Mid-

Term Review? If so, please update the above referenced statements and provide details.

- c. If the answer to part b. of this question is 'no', how does Enbridge expect that the Mid-Term Review process will adequately address this issue?