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February 23, 2017

Reply To: Thomas Brett
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Our File No. 168193

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: Cap and Trade Compliance Plans (Combined Proceeding): Enbridge Gas
Distribution Inc. (EB-2016-0300), Union Gas Limited (EB-2016-0296) and
Natural Resource Gas Limited (EB-2016-0330)**

Please find enclosed BOMA's Interrogatories with respect to the above captioned proceedings.

Yours truly,

FOGLER, RUBINOFF LLP

Thomas Brett

TB/dd

Encls.

cc: All Parties (*via email*)

EB-2016-0296
EB-2016-0300
EB-2016-0330

ONTARIO ENERGY BOARD

**Union Gas Limited
Enbridge Gas Distribution Inc.
Natural Resource Gas Limited**

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

**Interrogatories of Building Owners and Managers Association,
Greater Toronto ("BOMA") to Enbridge Gas Distribution Inc. ("EGD")**

February 23, 2017

Tom Brett
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Counsel for BOMA

Interrogatories of BOMA to EGD

Issue 1

1. **Ref: EB-2016-0300, Exhibit C, Tab 1, Schedule 1, p6 of 18**

Preamble: Furthermore, other than the Green Investment Fund (“GIF”) whole home energy efficiency retrofit program, there are no incremental customer or facility abatement activities in Enbridge’s 2017 Compliance Plan.

Will Enbridge include the customer savings and costs from the home energy efficiency retrofit program in its DSM monitoring and reporting system? Will such savings contribute to any shareholder incentives?

2. **Ref: EB-2016-0300, Exhibit C, Tab 2, Schedule 1, p7 of 15**

Preamble: An offset credit is similar to an allowance in that it can be retired to satisfy obligations under the Regulation. Similarly, one offset credit is equal to one tCO₂e. Offset credits are created through a verified reduction or absorption of GHG emissions in a sector of the economy not covered by the Cap and Trade program. The reduction must demonstrate “additionality”, the concept that the GHG reductions would not have occurred without the payment for the offset and would not have occurred under a business-as-usual scenario.

How will Enbridge assess the “additionality” of such reductions? Is this equivalent to the notion of free riders used in the DSM Plan?

3. **Ref: EB-2016-0300, Exhibit C, Tab 2, Schedule 1, p8 of 15**

Preamble: The need for verification of offset credits presents an “invalidation risk”, non-existent in the use of allowances. This represents the risk that offset projects may at some point after they are issued be found to have not reduced the stated GHG emissions, and offset credits may be rescinded by the issuing body. Invalidation risk for Ontario offset credits is dependent on how the compliance instruments are defined in the Ontario offset regulation. At the time of preparing this evidence, the MOECC has not released the regulations regarding offsets and offset protocols.

- (a) How does Enbridge expect to verify offset credits? What options are under consideration? Will it be equivalent to verification process used in the DSM Plan?

- (b) When does EGD expect the draft offset protocol (regulation) will be available?
Will EGD support the regulation being available for public commencement prior to its coming into force?

Forecasts

Is the proposed forecast period reasonable and appropriate?

Are the volume forecasts used reasonable and appropriate?

4. **Ref: EB-2016-0300, Exhibit B, Tab 2, Schedule 1, p6 of 7**

Preamble: TABLE 2: 2017 FACILITY-RELATED VOLUMES

Given that Unaccounted For Gas (UAF) represents more than 80% of facility related volumes, what is Enbridge's plan to reduce UAF and track its reductions? How does Enbridge's UAF compare with other major gas distribution utilities in North America?

Are the GHG emissions forecasts reasonable and appropriate?

Is the carbon price forecast reasonable and appropriate?

5. **Ref: EB-2016-0300, Exhibit C, Tab 1, Schedule 1, p12 of 18**

Preamble: All carbon-related market developments will be summarized in the form of a market report. This market report will be distributed to all CPGG members on a monthly basis and prior to any meeting.

Will Enbridge make these reports available to the OEB? To Intervenors? To the Ontario government?

Compliance Plan

Is the gas utility's Compliance Plan overview reasonable and appropriate?

6. **Ref: EB-2016-0300, Exhibit C, Tab 3, Schedule 4, p2 of 7**

Preamble: Lastly, the Board notes in section 5.6 of the Framework that the introduction of abatement activities under the Cap and Trade program “creates the potential for significant overlap between existing DSM programs and future Compliance Plans.” The Board concludes that “The DSM Framework also includes a mid-term review provision (to be completed by June 1, 2018) that will provide an appropriate opportunity to assess the DSM Framework in light of the Cap and Trade program.” Enbridge shares the Board’s view regarding the potential for overlap between DSM programs and future Cap and Trade Compliance Plans. 6. Further, the Company agrees that the DSM Mid-Term Review will provide ample opportunity to consider the relationship between DSM programs and other future customer abatement activities, which should include a review of DSM’s role within the Company’s overall compliance planning activities. A focused evaluation of the level, pacing, and cost effectiveness of DSM as a compliance tool within the DSM Mid-Term Review will allow the Company to consider the inclusion of DSM within a Compliance Plan beyond 2017, while also avoiding disruption of the Company’s existing DSM programs currently in market.

- (a) What are Enbridge’s expectation for the scope and process for the Mid Term Review?
- (b) Will intervenors and/or the DSM consultative or the OEB’s Evaluation Audit Committee be involved?
- (c) Has Enbridge assessed the options relative merging the two frameworks?
- (d) Has any analysis of the costs and benefits of doing so been completed?

7. **Ref: EB-2016-0300, Exhibit C, Tab 3, Schedule 4, p2 of 7**

Preamble: In 2016 Enbridge entered into an agreement with the Ministry of Energy (“MOE”) to offer an advanced home energy audit and retrofit program over the course of three years through the GIF. The primary objective of this program is to help homeowners save on their energy bills year after year while also reducing overall GHG emissions. The whole home retrofit program was designed to be similar to Enbridge’s existing DSM offer, the Home Energy Conservation program, and is available to all customers regardless of primary fuel type. In addition, the funding was also meant to increase the deployment of the Adaptive Thermostats offer, also consistent with the Company’s DSM program, as well as funding to pursue educational and behavioural-based GHG reductions.

Given the similarity of the whole home retrofit program to its Home Energy Conservation, how will Enbridge determine which savings are incremental?

8. ***Ref: EB-2016-0300, Exhibit C, Tab 3, Schedule 4, p4 of 7***

Preamble: Enbridge believes that establishing a renewable content objective for natural gas pipeline systems can provide a flexible low-carbon solution that offers good value to customers because it leverages the existing natural gas transmission, distribution and storage infrastructure as well as the heating, water heating and other gas-fired equipment used by our customers. Next to conservation, the addition of a renewable content objective, for natural gas pipelines, is expected to offer one of the more cost-effective carbon abatement measures for Ontario to broadly meet its GHG reduction and climate change mitigation goals.

- (a) Please provide the cost benefit analysis demonstrating that renewable natural gas is “one of the more cost effective carbon abatement measures for Ontario.
- (b) Has the gas utility reasonably and appropriately conducted its Compliance Plan option analysis and optimization of decision making?
- (c) Are the proposed performance metrics and cost information reasonable and appropriate?
- (d) Has the gas utility reasonably and appropriately presented and conducted its Compliance Plan risk management processes and analysis?
- (e) Are the gas utility’s proposed longer term investments reasonable and appropriate?
- (f) Are the gas utility’s proposed new business activities reasonable and appropriate?

9. ***Ref: EB-2016-0300 Exhibit C, Tab 6, Schedule 1, p2 of 2***

Preamble: As contemplated in the Framework, certain of the proposals to reduce emissions brought before the Board for consideration by the Company may constitute

new business activities. Enbridge has not included any new business activities in this Compliance Plan. The Company expects that some of the carbon abatement initiatives it proposes in the future may constitute new business activities that may not necessarily fit within the scope of the Company's current regulatory construct. If such activities are proposed in a later compliance plan, the Company will seek the required authorization from the Board and/or the provincial government before commencing with such activities.

On September 8, 2009, Order in Council (OC 1540-2009) was issued which gave both Union and Enbridge broader mandates with respect to renewable energy and conservation including some of the activities listed in the submission. In Enbridge's opinion, what is the current status of OC 1540-2009? Will additional government directives be required in the near future? What is required to implement the mandates already given to Enbridge?

10. ***Ref: 1.5 – Cost Consequences and General (Conflict of Interest)***

- (a) Will EGD (the utility), or a related party, as defined in Ontario Regulation 144/16, register as a market participant, to allow it to participate in the cap and trade? Does it intend to buy, sell, trade, take derivative position on, or in any other way participate in the carbon market for its own account (or that entity's account); in other words, in the case of the utility, in any capacity other than on behalf of its ratepayers?
- (b) If yes, what entity within the EGD family will be a registered market participant? Has any EGD related entity registered as a market participant?
- (c) If yes, what arrangements will be made to ensure that the ratepayers will be protected from any conflicts of interest, preferential treatment of non-regulated

EGD affiliated companies, sharing of information with these entities, and the like, which could lead to higher costs for ratepayers?

- (d) Given the scope for abatement activities in EGD's franchise, why has EGD not proposed a full slate of abatement activities for 2017 analogous to the GIF program and addition to the DSM program? Would any profits from cap and trade activities be credited to the ratepayers' account?
- (e) Please confirm that EGD includes no abatement investments in its compliance plan for 2017, other than the GIF program.
- (f) What is the basis of the calculation of the 2017 savings from the GIF program? What will be the percentage of the 2017 savings in 2018, 2019, and 2020?
- (g) (i) Does EGD have full cost recovery for its administration of the Green Investment Fund? (ii) Please provide a copy of the Agreement between EGD and the Ontario Government, pertaining to EGD GIF program. What was the rationale for the \$46 million EGD raised from the government? What is the proposed budget for each year of the compliance period?

Issue 1.4

11. Ref: *Compliance Plan*

EGD has stated that it included no customer abatement activities incremental to DSM, save for the GIF program, savings from no new activity, no savings for long-term investments, and no offsets in its 2017 plan. When does EGD anticipate a secondary

market for allowance/credit will be available to buy, sell, and trade allowance, in Ontario?

Issue 1.6

12. ***Ref: General***

Does EGD also understand that the Board will review the prudence of the costs of implementation of the Compliance Plan subsequent to the compliance year, and agree that the Board should do this?

13. ***Ref: Exhibit C, Tab 3, Schedule 1***

- (a) Please explain the origin of the soft ceiling price of \$66.49, where is it found in legislation, regulations or program documents? Please explain, in detail, how the price was arrived at and comment on the very large difference between that price, the 2017 Ontario auction reserve price, and recent allowance prices in California and Quebec markets.
- (b) Please explain fully, the sentence: "This (the \$66.49 price) adequately captures the full cost efficiency of the Compliance Plans".

Issue 1.7

14. ***Ref: Exhibit C, Tab 4, p1***

- (a) Please explain why would the price of an emission allowance at an Ontario auction be potentially impacted by the difference between the auction market and

the over-the-counter market. Please provide examples of potential differences between the two markets.

- (b) Does EGD anticipate that the over-the-counter market will be regulated in any fashion? Will there be any price transparency in that market? Will it become a significant factor in the overall emission instrument market? Please discuss.
- (c) Please confirm that currency and inflation risks are common to all market participants.
- (d) How does EGD distinguish the secondary and tertiary markets?
- (e) How would a "negative" California court decision likely impact the Ontario market (i) in the short term; (ii) in the medium to longer term?
- (f) Please provide the scenarios of emission allowance prices or explain why such information should not be disclosed, given its usefulness to the public and intervenors, and given that the potential scenarios are hypothetical based on such factors as changes in exchange rates, but do not disclose a strategy.

15. **Ref:** *Exhibit C, Tab 4, Schedule 1, p17*

Please define, and explain the significance of, market limits and holding limits on EGD's ability to acquire or produce the necessary allowance and other emission units.

16. **Ref:** *General*

In the event, as EGD speculated, that acquired carbon allowances were rendered worthless by a change in government policy from cap and trade to a carbon tax, what is

EGD's view on how the risk of that loss should be allocated between EGD shareholders and ratepayers. Please explain fully. Are there any terms in the custodial or trust arrangement with Deutsche Bank, or an agreement with the government that in the event the cap and trade program is terminated before, or after, the end of the first compliance period, the funds are returned to the ratepayers?

17. **Ref:** *Ibid, p24*

Are the regulations regarding administrative monetary penalties now available? Please provide a reference or link.

18. **Ref:** *Ibid, p29*

- (a) Please explain the reference to "closed markets" and the sentence of which it is a part.
- (b) Has EGD determined that allowance allocation, purchase and sale, and trading would not be subject to Ontario securities legislation?

Issue 1.10

19. *Preamble: EGD states it will develop its own MACC.*

- (a) Will it ask the Board to approve its MACC for use in analysing the reasonableness and prudence of Compliance Plans and expenditures?
- (b) Does EGD believe that each category of abatement project should have its own MACC? Please explain fully.

20. **Ref: *Abatement Projects***

Please confirm that a comparison of costs of abatement projects with the auction reserve price (the minimum price that auction participants can bid, and the information provided by the government after each auction [see Auction Notice for Ontario Cap and Trade Program on March 22, 2017, "ontario.ca/climate-change" for details] which is a publicly available number) should be a part of any future annual compliance plan, and would be part of any subsequent prudency review.

21. Are the federal methane regulations now available? If not, when are they expected? If yes, please provide a copy or a link.

Issue 2

22. **Ref: *Monitoring and Reporting***

(a) Please confirm that EGD is of the view that its annual monitoring report should be made public. If not, which parts of the report would not be made public; which parts would be made public, and why?

(b) Please confirm that the Monitoring and Reporting Reports of GIF driven emissions reduction, as well as the methodology used to determine those reductions, with sample calculations, will be available to the public.

23. **Ref: *Deferral and Variance Accounts***

Why would EGD not commit to the clearance of any balance in its variance account at the same time each year, namely the Spring 2018 true-up for its 2017 variance accounts,

in order to guarantee that customers would quickly obtain the potential advantage of the previous year cap and trade optimization work, and avoid needless confusion?

24. **Ref:** *Cost Recovery/Prudency*

When, in EGD's view, should the Board review the prudency of the costs incurred in implementing the 2017 compliance plan? In the Spring 2018 true-up of 2017 deferral accounts and related matters; if not at that time, and what other time?

Issue 5

25. **Ref:** *Issue 5 – Cost Recovery, Exhibit C, Tab 3, Schedule 6*

EGD has stated that it will place 2017 administrative costs, both capital and operating, required for the Company to meet its cap and trade obligations in its new deferral account. When does EGD propose to clear the account into rates, in what proceeding and in what year?

26. **Ref:** *Ibid*

Please breakdown the \$187,500 annual cost in 2016 and the \$160,000 annual cost for each member of the cap and trade group in 2017, as between salary, benefits, travel, and other expenses.

27. **Ref:** *Exhibit C, Tab 3, p6*

(a) Please provide (i) a copy of the ICF Report which analysed the Ontario Cap and Trade Program; (ii) the contract under which EGD retained ICF.

- (b) Please provide a list of the reports that EGD obtained from the Emissions Trading Organization, and provide any reports pertinent to the issues in this case.
- (c) Please provide the RFPs used to select each of Alpha Inception and ICF International.
- (d) In EGD's view, had the cap and trade charge been a separate item on the customer's bill, with equal priority of payment with the EGD delivery charge, would it have been necessary to increase the bad debt expense?
- (e) Please provide a list of the LFE and the voluntary participants in the EGD franchise, together with aggregated volume forecasts and associated GHG for each group.

28. ***Ref: Customer Abatement***

Please provide a timetable for the introduction of RNG into the Ontario natural gas mix, showing volumes per year over the first, second, and third compliance period. Please compare the forecast with a cost comparison to the forecast of carbon over the same period.

29. ***Ref: Ibid***

- (a) Please provide the same analysis for the power to gas technology as provided for the RNG.
- (b) In addition, please provide further data on the power to gas technology, determining the state of development of the option, locations of pilot or

demonstration plants, cost data, and the best assessments of the feasibility of, and timing for, the introduction of the process at scale in Ontario.

30. **Ref: *Exhibit C, Tab 6, Schedule 1***

Please provide the report on EGD's evaluation of long term GHG reduction strategies to date, and reference to any consulting contracts EGD has made to further its evaluation, and the approximate timeline for the commencement of the measure.

31. **Ref: *Carbon Price***

There have been various ten year carbon price forecasts published by consultants, utilities, etc., including ICF. Please provide ICF's most recent ten year carbon price forecast.

32. **Ref: *Exhibit G, Tab 1, Schedule 1 – Cost Recovery***

From which customers will the costs of acquiring natural gas derived from biomass be recovered?

33. **Ref: *Exhibit A, Tab 2, Schedule 1 - 1.4 Compliance Plan – Issue 5 – Cost Recovery***

Preamble: EGD appears to the Board for a determination that the Company's Compliance Plan is compliant with the (Board's) Framework, and is accepted by the Board because...

"(b) it is reasonable and has prudently optimized decision making to achieve efficiency and to reasonably manage risk, given the legislative framework of the tools available at this time, and the lack of data around Ontario nascent carbon market.

(c) it demonstrates EGD's planned investment decisions have been prudently prioritized and paced, indicating proposed long term investments."

- (a) Please confirm that EGD is not asking the Board at this time for an "advance ruling" that its 2017 expenditures to comply with its 2017 compliance plan are prudently incurred.
- (b) What information, or categories of information, does EGD believe should be treated in confidence because it is commercially and strategically sensitive, other than the specific auction-related information items, the publication of which is prohibited by subsections 32(6) and 32(7) of the Climate Change Mitigation and Low Carbon Economy Act (the "Climate Change Act")?
- (c) Please provide examples of information, which if not redacted could be used by a third party to minimize its Compliance Plan and negatively affect ratepayers.
- (d) Please use examples, hypothetical, but sufficiently specific to show the likely negative effect on ratepayers.
- (e) The MOEE's Auction Notice, passed in January 2017 announced the initial public auction of allowance will be held on March 22, 2017. Is it EGD's view that the auction will be held on that date, or will it be postponed?

34. **Ref: Exhibit B, Tab 1, Schedule 1**

When, in EGD's view, will the Board make available its ten year carbon price forecast and its Marginal Abatement Cost?

35. **Ref: Exhibit B, Tab 2, Schedule 1, p2; and Table 1 on p3**

Please explain the use of the term "partially effective volumetric reduction".

36. **Ref:** *Ibid, p3*

Please provide the names of the capped participants in Table 1 (link provided to EGD from MOECC on October 7, 2016).

37. **Ref:** *Exhibit B, Tab 4, Schedule 1, p3, 1.3 Carbon Price Forecast*

The evidence states:

"EGD has, per the Board's instructions, calculated a 2017 carbon price forecast based on the ICE settlement prices (\$16.50 CDN). That price should be used to calculate the price of allowance available at auction, or otherwise, given that the Board's ten year price is not yet available. The auction reserve price, the lowest price that can be bid in the auction, is established per the Board's policy to be \$17.70 CDN" (see Table 3 – B, 4, 1, p7).

Please provide the text of the sentence immediately following under the heading Discussion on Appropriate Price for Rate Setting. As an explanation of what price EGD chose to put in rates, it is a critical input to parties understanding whether EGD is acting prudently and fairly in establishing forecast cost of the Company's program, an amount that will be recovered from ratepayers in 2017 final rates.

38. **Ref:** *Exhibit C, Tab 1*

- (a) Why does EGD not have any dedicated specialists in cap and trade, carbon pricing, carbon taxes, on its Carbon Procurement Governance Group, other than Manager Carbon Strategy, and Business Environment Specialist, and Senior Environmental Advisors Carbon Strategy, none of whom are voting members of the CPGG.

- (b) Does EGD agree that the cap and trade and emissions reduction subject matter is very different than the natural gas subject matter, in its underlying science, business drivers, policy environment, and financeability?

39. **Ref:** *Exhibit C1, Tab 1, p12*

Please provide copies of EGD's last three monthly carbon reports.

40. When does EGD expect a decision on whether the Ontario market will be linked to the WCI markets?

41. **Ref:** *Exhibit C1, Tab 1, Schedule 1, Appendix A*

- (a) Given that the 2017 cap equals the 2017 available allowances, what could bring about a shortage of allowances for gas utilities in 2017? Please explain fully.
- (b) Ibid, p3 (last paragraph) - Please explain the characterization of cap and trade initiatives as a backstop mechanism used primarily to raise revenues for the full Cap and Trade Action Plan which will generate the bulk of the reductions. Please provide a full explanation.
- (c) BOMA understands that under the cap and trade legislation/regulation 144, gas utilities are not entitled to free allowance. What, in EGD's view, is the purpose of free allowances and which market participants will be eligible to receive them? How large a share of a total cap of participants will they cover?
- (d) Has the government decided who the successful applicants for free allowance are, and how much each received? If public information, please provide.

- (e) What is the amount of the strategic allowance reserve for 2017 (number of allowances and percentage of total available allowances)?
- (f) Please confirm that the Auction Average Price and related information will be disclosed by the Ministry after each auction, together with the number of allowances sold.
- (g) Is EGD eligible for "early reduction credits"? Has the regulation been issued? If so, please provide. If no, when is it expected?

42. **Ref:** *Ibid, p15*

In EGD/Alpha view, what are the holding limits?

43. **Ref:** *Ibid, p18*

Alpha has expressed reservations about the California future price (ICE) should be the basis of Ontario and Carbon Price Forecast, noting that "This will result in a poor representation of market levels, the further out in the term than is being evaluated", due to lack of liquidity in the market for California Carbon Allowance futures.

Please elaborate on Alpha's concern and make available the sentence immediately preceding the one quoted above.

44. **Ref:** *Ibid, p33*

Has the California Air Review Board presented its findings to the Governor of California recommending linkage with Ontario? If so, please provide a copy, or a link to the

documents, and any related documents. Has the Governor's office made a decision on Ontario's eligibility for WCI under California law? If not, when is the decision expected?

45. **Ref:** *Ibid, p36*

Please provide the redacted pages (pp37 to 48) under the heading, Fundamental Supply and Demand of Cap and Trade, or explain why the information, which appears to be information on characteristics of cap and trade markets, rather than specific auction information or information concerning EGD's choice of policy instruments for its own compliance plan, should not be released.

EB-2016-0296
EB-2016-0300
EB-2016-0330

ONTARIO ENERGY BOARD

Union Gas Limited
Enbridge Gas Distribution Inc.
Natural Resource Gas Limited

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

**Interrogatories of Building Owners and Managers Association,
Greater Toronto ("BOMA") to Union Gas Limited ("Union")**

February 23, 2017

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Counsel for BOMA

Interrogatories of BOMA to Union

Issue 1.0

1. ***Ref: EB-2016-0296, Exhibit 3, p25 of 47 Updated***

Preamble: For 2017, there is only one customer abatement program included in Union's compliance plan that is incremental to the DSM plan. Through the Government of Ontario's GIF Union has entered into an agreement with the Ministry of Energy to receive funding of \$42 million to enhance the Home Reno Rebate offering and achieve additional GHG emissions reductions through 2018.

What differentiates the GIF funded Home Reno Rebate from Union's existing program.

How will the savings be differentiated to insure additional GHG emission reductions are from the GIF program elements? Will Union include the customer savings and costs from the home energy efficiency retrofit program in its DSM monitoring and reporting system? Will such savings contribute to any shareholder incentives?

2. ***Ref: EB-2016-0296, Exhibit 2 Page 5 of 10***

Preamble: The UFG volume forecast for 2017 is 89,851,375. It is based on the forecasted total throughput volumes for Union multiplied by the Board approved UFG Volume percentage of 0.219%.

Has Union Gas done any studies which bear out the Board' approved UFG volume percentage? How does Union intend to address these emissions? How does the Board approved volume percentage compare to other major natural gas distributors? While Enbridge's unaccounted for volumes, represent over 80 per cent of its facility related emissions, what are the factors that make Union Gas' share 28%?

Are the GHG emissions forecasts reasonable and appropriate?

Is the carbon price forecast reasonable and appropriate?

Compliance Plan

Is the gas utility's Compliance Plan overview reasonable and appropriate?

3. **Ref: EB-2016-0296, Exhibit 3, p25 of 47**

Preamble: As outlined in the cap-and-trade Framework, customer abatement programs related to compliance plans are intended to be incremental to the utilities' DSM programs. As such, those programs are not included in Union's 2017 Compliance Plan as a customer abatement activity. However, the forecasted customer volumes and emissions (Exhibit 2, Schedule 1) do reflect the significant impact of these programs to ensure that Union's compliance obligation is not over-stated.

How will Union Gas assess the "additionally" of such reductions? Is this equivalent to the notion of free riders used in the DSM Plan?

4. **Ref: EB-2016-0296, Exhibit 1, p3 of 12, Updated**

Preamble: Since the 1990's, Union has had significant success in implementing Demand Side Management ("DSM") programs to assist customers in reducing their natural gas consumption and related greenhouse gas ("GHG") emissions. For 2017, there is an additional customer abatement program, the Plan that is incremental to the DSM plan. Going forward, Union will leverage its experience and skillset in reducing emissions as part of DSM, and evaluate the potential to reduce customer emissions further, thereby reducing Union's compliance obligation. Union will include the outcome of this analysis in future compliance plans.

How will Union assess the "additionally" of such reductions? Is this equivalent to the notion of free riders used in the DSM Plan? How does Union expect to verify offset credits? What options are under consideration? Will it be equivalent to verification process used in the DSM Plan? What are Union's expectation for the scope and process for the Mid Term Review? Will intervenors and/or the DSM consultative or the OEB's Evaluation Audit Committee be involved? Has Union assessed the options relative merging the two frameworks? Has any analysis of the costs and benefits of doing so been completed?

5. **Ref: EB-2016-0296, Exhibit 3, p25 of 47**

Preamble: Union is also exploring a number of opportunities for customer abatement such as the use of combined heat and power projects and renewable natural gas in the gas supply portfolio. Prudent customer abatement programs such as these will reduce Union's compliance obligation, resulting in less compliance instruments, and provide diversity within the compliance plan. This allows Union to manage both non-compliance and financial risks. As Union evaluates these programs, the outcomes of this analysis will be provided in future compliance plans.

While it is clear that Renewable Natural Gas represents an incremental emissions reduction element, Union has included combined heat and power projects in previous DSM plans; how will these projects be differentiated from previous projects.

- (a) Has the gas utility reasonably and appropriately conducted its Compliance Plan option analysis and optimization of decision making?
- (b) Are the proposed performance metrics and cost information reasonable and appropriate?
- (c) Has the gas utility reasonably and appropriately presented and conducted its Compliance Plan risk management processes and analysis?
- (d) Are the gas utility's proposed longer term investments reasonable and appropriate?
- (e) Are the gas utility's proposed new business activities reasonable and appropriate?

6. **Ref: EB-2016-0296, Exhibit 3, p47 of 47, Updated**

Preamble: Renewable Natural Gas ("RNG"). RNG is an alternative to conventional gas supply, is non-emitting, and can be stored, transmitted and distributed using the existing natural gas infrastructure. RNG is produced by capturing methane that results from the decay of any organic matter. Methane is captured at the source (e.g. landfills, waste water, agriculture), where it is "cleaned" and then integrated into the natural gas system. Union is examining how RNG can become part of the utility's gas supply

portfolio, which will require regulatory approval. While it is not expected that this will be feasible for 2017, Union is expecting RNG to be part of the gas supply portfolio as early as 2018. Union estimates that by 2020, up to 2% of system supply could be provided using RNG, increasing to up to 10% of total supply by 2030. Replacing 10% of the province's conventional natural gas supply with RNG yields an estimated emissions reduction of up to 8 Mt CO₂e/year by 2030.

On September 8, 2009, Order in Council (OC 1540-2009) was issued which gave both Union and Enbridge broader mandates with respect to renewable energy and conservation including some of the activities listed in the submission. In Union's opinion, what is the current status of OC 1540-2009? Will additional government directives be required in the near future? What is required to implement the mandates already given to Union?

7. ***Ref: Cost Consequences and General (Conflict of Interest)***

- (a) Will Union Gas Limited (the utility), or a related party, as defined in Ontario Regulation 144/16, register as a market participant, to allow it to participate in the cap and trade market? Does it intend to buy, sell, trade, take derivative position on, or in any other way participate in the carbon market for its own account (or that entity's account); in other words, in the case of the utility, in any capacity other than on behalf of its ratepayers?
- (b) If yes, what entity within the Union/Spectra family will be a registered market participant? Has any Union-related entity registered as a market participant?
- (c) If yes, what arrangements will be made to ensure that the ratepayers will be protected from any conflicts of interest, preferential treatment of non-regulated Union affiliated companies, sharing of information with these entities, and the

like, which could lead to higher costs for ratepayers? Would any profits from cap and trade activities of the entity be credited to the ratepayers' account?

- (d) Ref: Ibid, p10 - Please confirm that any transactions conducted with an affiliate in the course of implementing a compliance program are, in terms of risk allocation, and price, and any other contractual or commercial matter, no more favourable to the affiliate than it would have been had the counterparty not been an affiliate.

8. **Ref: Exhibit I, p6 – Cost Consequences**

Please explain why Union thinks it is necessary to estimate an Ontario "minimum auction reserve price", which is higher than the California price, outlined in the Board's Framework. What is the justification for imposing the additional burden on ratepayers?

9. **Ref: Exhibit 3, p46**

Please provide the name of the person directly responsible and accountable for (i) the design, and (ii) the execution of Union compliance plan for 2017.

Issue 1.1

10. **Ref: Forecasts**

Please provide the October 7, 2016 list of mandatory and voluntary participants, provided by MOEE.

11. How will Union deal with the impact of converting its fleet to natural gas when the government agrees that such a fuel shift would decrease provincial emissions but increase Union's own emissions? Will the government provide a credit mechanism? Has this issue been settled?

Obligation

12. ***Ref: Exhibit 3, p27***

Please make available the terms of reference for the study contracted to address a range of facility related GHG reduction projects? When does Union expect to have the results of the study? Will it file the study in a future proceeding?

13. ***Ref: Exhibit 3, Appendix A***

How will Union "minimize risk through diversification within the compliance portfolio" in 2017 since virtually none of the instruments which could be used to diversify risk, are available or fully developed to the point where they are generating emission credits or allowances. When will Union's proposed governance documents for offsets and abatement projects be available? What safeguards exist to ensure that utilities can purchase allowances in 2017 at auction, or otherwise, at prices that are not far above the reserve price, as has been recent experience in California and Quebec? How, if at all, will ratepayers be protected against an allowance cost/rate spike in (i) 2017; (ii) thereafter?

14. In order to reduce the number of calls to the Customer Contact Centre, does Union intend to provide a customer bill insert on the bills that explain the GHG-related increase to the

customer's monthly delivery bid? If not, why not? Why should ratepayers bear the costs due to the utility failing to identify the exact GHG impact of the customer's delivery rate on the customer's delivery charge on its bill?

Issue 1.2

15. What percentage of Ontario's 2017 Class I allowances do Union's customers (excluding the LFEs and voluntary market participants) account for?

Issue 1.4

16. ***Ref: Exhibit 3, p 7***

Does Union have any GHG/Cap and Trade experts on its purchasing staff, or in any other part of its organization? Please provide the names and positions.

17. ***Ref: Ibid, p8***

- (a) Has Union received approval from the MOECC of its participant registration application?
- (b) Please provide a copy of the approval. If it has not obtained approval, when does it expect such approval?
- (c) Which carbon market data provider(s) has Union subscribed to?
- (d) Please provide samples of the carbon market exchange data that Union has acquired from ICF.

- (e) Please provide the name of the other consultants that Union has engaged on each of the topics set out at p10.

18. **Ref: General**

- (a) Please advise when Union expects the Board will assess the prudence of Union's 2017 compliance plan actual expenditures, including the allowances purchased either at auction, from third parties, from the Ontario government reserve, or elsewhere. Please provide a complete answer.
- (b) Please confirm that, given that Union has stated that it will not propose any customer abatement projects (other than the GIF grant(s) driven projects) in 2017, nor any long term capital expenditures, nor new business activities (at least to the point where measurable savings are realized in 2017), its 2017 compliance plan, and the fact that a secondary market for allowances and credits has not yet been developed, does Union agree that its 2017 compliance plan will consist entirely, or close to entirely, of purchases of allowances and options, futures, or other derivatives related to such purchases.
- (c) How many emission units will be generated by GIF-driven customer abatement projects in 2017, and what percentage of required emission units will they constitute? What is the forecast average cost of emission units produced by these projects?
- (d) Aside from allowances purchased at auction or from the government reserve, or elsewhere, what other elements may be present in Union's 2017 compliance plan?

19. **Ref: Page 20**

- (a) When does Union expect the secondary market for allowances/credits to begin operation in Ontario? Will it start in 2017 or 2018? What would be the principle features of such a market, based on experience in Quebec and Ontario? In general terms, how does Union foresee it will operate?
- (b) Will the sales and purchases be transacted on ICE exclusively, or will there likely be other platforms, including private purchases and sales?
- (c) Can the ICE platform be used only for GHG futures, or can it be used for other transactions, such as and spot transactions? What other types of transactions will ICE support?
- (d) How have the secondary markets operated in Quebec and California? Please provide a history including volumes and prices in those markets. Please provide any available studies on the operation of those markets or links to sites where such studies can be found.
- (e) Please provide a copy of the ICE Ontario only carbon contract.
- (f) Please provide a copy of, or a link to, the offset programs that have been used in California and Quebec. When will Ontario offset guidelines be available? Please confirm that Union does not expect offsets being available for use in 2017, in Ontario. Please provide a link to information on Alberta's offset experience.

- (g) What does Union anticipate would be the advantages/disadvantages of having a link to the WIC market in 2018, or at a later date? Please discuss fully.

20. **Ref:** *Exhibit 3, p29*

- (a) Please show an organizational chart for the Union cap and trade organization, which identifies the function of each of the FTEs or partial FTEs, that will make up the incremental 13.5 FTEs requested.
- (b) How many additional full-time personnel will be hired as part of the FTE complement?
- (c) What are the names of the personnel working on the unit?

21. **Ref:** *Exhibit 3, p34*

Please confirm that any income tax increases not driven by cap and trade compliance obligations will not be included in cap and trade deferral accounts, in 2017, or in any later year.

Issue 1.8

22. **Ref:** *Exhibit 1, p4*

- (a) Why are Union RNG and CNG initiatives not in scope for the 2017 compliance plan? Please explain fully.
- (b) Is Union seeking cost recovery for costs related CNG and RNG initiatives in 2017 rates? Please explain.

23. **Ref: Exhibit I, p4 of 12**

Union is not including any long-term investments as part of its 2017 compliance plan. Union states that it needs to first determine the mechanism for cost recovery of these investments.

- (a) Please explain what is meant more fully.
- (b) What does Union consider an appropriate "mechanism for cost recovery"?

24. Does Union expect to obtain a reduction of its GHG emission for the RNG initiative in 2017? If not, when will the reduction in GHG emissions be phased in, in approximately what magnitude, over each year of the initial compliance period.

25. **Ref: Exhibit 3, Appendix B, p5, paragraph 3**

- (a) The document speaks of standard cap and trade contracts. Which standard contracts have been developed to date? Please provide copies of each of the standard contracts that have been developed to date. What other contracts will be developed, and when? Have the standard contracts been reviewed as per paragraph 3.6 of Exhibit 3, Appendix B, p 7?
- (b) Has the Compliance Plan for 2017 been approved by the Union Gas executives? On what date?
- (c) Were any changes made to the plan as part of the Senior Executive Approval process? Please summarize the changes at a high level.

- (d) Ibid – p5, paragraph 3.2 – Please explain the "tolerances" that are enforced by the Spectra Risk Management Committee, as part of the Spectra corporate risk management policy.

26. **Ref:** *Ibid, p6*

Please explain the meaning in the risk management context of "cover ratios" and "compliance position thresholds", and "relative market price levels".

27. **Ref:** *Ibid, p8*

Please provide a copy of the Union Gas Credit Guidelines.

28. **Ref:** *Exhibit 3, Appendix C*

- (a) Please provide the names and qualifications of staff at Blue Markets Toronto office, other than Mr. Berends, together with their CVs and general experience in carbon markets, especially in California or Quebec.
 - (b) Have the Toronto based principals any experience with the California and/or Quebec auctions?
29. (a) BOMA understands that Union currently does not use derivatives in its gas purchase activities other than the NYMEX futures market. Is that still the case?
- (b) Please list what Union understands to be the derivatives in use in gas purchase markets in some North American jurisdictions.

- (c) Please comment on the use of derivatives in the Quebec and California cap and trade markets, including stating which derivatives are used , the extent to which they have been used, the purpose for which they have been used, and any other pertinent information.
- (d) Why, broadly speaking, would Union consider the use of derivatives in the cap and trade market? What would be the potential advantages and disadvantages?

Issue 1.10

- 30. (a) Given the scope for abatement activities in Union's franchise, why has Union not proposed a full slate of abatement activities for 2017 analogous to the GIF program and in addition to the DSM program?
- (b) Please confirm that Union includes no abatement-driven savings, or investments in its compliance plan for 2017, other than the GIF program.
- (c) What is the basis of the calculation of the 2017 savings from the GIF program? What are the forecast 2017 savings in 2018, 2019, and 2020?
- (d) (i) Does Union have full cost recovery of its administration of the Green Investment Fund projects? (ii) Please provide a copy of the Agreement between Union and the Ontario Government, pertaining to Union GIF program. What was the rationale for the \$42 million Union received from the government? What is the proposed budget for each year of the compliance period?

Issue 2

31. ***Ref: Monitoring and Reporting, Exhibit 4, Schedule 1***

- (a) Why should Union's report of the amounts spent on the components of its compliance program (found at Exhibit 4, Schedule 1) be strictly confidential, provided that it were partly aggregated? Abatement project costs can then be compared with the average and median allowance auction costs, as reported by the government after each auction, and the 2017 reserve bid price. This comparison would be very helpful in determining prudence of the plan. The various compliance components are widely known. The abatement projects are comparable to DSM projects. Release of the offset costs, which are limited by statute to 8% of total eligible emission units, in aggregate form, would not prejudice Union unduly and, again, would assist in exercising prudence. It appears clear that in 2017, most, if not all coverage for emissions will have to come from allowances, due to the absence of other instruments. Please explain why the release of this information would seriously prejudice Union and its ratepayers.
- (b) How will intervenors be able to analyse and comment upon the prudence of expenditures under the plan if there is not at least information on aggregated cost of most of the tranches of the compliance plan?

Issue 3

32. ***Ref: Customer Outreach, Exhibit 5, p1***

Please provide the survey, and the survey results, from the December survey, and the survey, and survey results (if available) from the March survey.

33. ***Ref: General***

What assistance will Union make available to voluntary and LFE participants to assist them in developing their compliance plans?

Issue 4

34. ***Ref: Exhibit 3, p35***

- (a) Please confirm that annual gas volume emission purchase risk will be managed by use of deferral accounts, and explain how that will work, in the case of both over-purchase and under-purchase of allowances, at one or more of the four auctions in 2017. Please provide an example of under-purchase and over-purchase, and how the variances are managed through the new deferral account.
- (b) Please explain how price risk will be handled through deferral accounts, or otherwise, including purchasing practices.
- (c) How will price risk be managed in the absence of a functioning future/option markets, either exchange based (ICE) or otherwise.

- (d) Will the ICE exchange be available to buy/sell GHG allowance or credits in 2017? What instruments have been developed to date for use on ICE?
- (e) Please describe the nature of the liquidity risk, if any, that Union faces in 2017. To what extent is the risk mitigated by Union bidding for sufficient volumes of allowances at the 2017 auctions. Does Union intend to ask the government to guarantee that the amounts of allowance required by the utilities will be available to the utilities, at reasonable prices, through the sale of the government's reserve allowances or otherwise, given that other methods of obtaining allowance or generating credits (together with emission units) will likely not be available in 2017. In Union's view, is the government aware of the various risks faced by customers and utilities in securing necessary allowances? Does it have sufficient safeguards?

35. **Ref:** *Exhibit 3, p37*

- (a) In order to be consistent with the disclosure by EGD of its Alpha Carbon Market Report, please provide a copy of those parts of the Clear Blue Report that deal with the cap and trade market history, etc., the risks that are present in that market, and the tools that are available to mitigate those risks.
- (b) Do Clear Blue's characterization of the cap and trade market differ in any material respect from Alpha's view?

36. **Ref: Exhibit 3, p38 – Counterparty Risk**

Please confirm there is no counterparty risk in dealing with the purchase of allowance from the Government of Ontario. Please provide Union's credit risk abatement package that it now uses for gas purchases, and describe how the guidelines it intends to adapt for use in the purchase/sale of GHG allowances/credits.

37. **Ref: Exhibit 3, Credit Risk Question, Non-compliance Risk, p39**

- (a) Based on its studies to date and experience in Quebec and WCI, and latest registration data on market participants, what counterparties does Union anticipate will be engaged in the secondary market? How many? What types of organizations? Please provide a list of the registered marketed participants as of today's date. What additional entrant does Union expect and when?
- (b) Please confirm that Union will deal with its own non-compliance risk, by simply doing its job properly.

38. **Ref: Exhibit 3, p42**

Please explain, in more detail, the impact on price risk of the fact that, under the Ontario cap and trade gas regime (Statute and Ontario Regulation 144) utilities, unlike California, are not eligible for free allowances. How have free allowances been used in California and Quebec?

39. **Ref: Exhibit 3, p44**

- (a) Please explain what is meant by project execution risk in this context.

- (b) What does Union mean by "it will manage liquidity risk by prioritizing selection of compliance instructions in 2017"? Please explain this in the context of the compliance instruments which Union has stated in its evidence are likely to be available to it, or not available to it, or that it does not intend to use, in 2017.

Issue 5; Issue 6

40. ***Ref: Exhibit 5, Appendix C, p2***

Please confirm that the statement "Customers buying gas from energy marketers will also pay this charge" is meant to refer to a charge for 2017 emission allowance, not necessarily the 3.3 cents per cubic meter, referred to in the previous sentence.

41. ***Ref: Exhibit 7, Schedule 1, p1***

- (a) Please explain the fact that in some of the rate costs (3.4240 cents/m³) for facility related GHG emissions obligation, why is the rate higher than the 3.3181 for customer related GHG emissions obligation?
- (b) Please show the derivation of the 389,882 cubic meters.