

EB-2015-0029
EB-2015-0049

Ontario Energy Board

Union Gas Limited and Enbridge Gas Distribution Inc.

**Applications for approval of 2015-2020 demand side
management plans.**

Interrogatories on GEC Evidence (1)

Energy Probe Research Foundation

August 4, 2015

Union Gas Limited and Enbridge Gas Distribution Inc.
Applications for approval of 2015-2020 Demand Side Management Plans
GEC Expert Evidence - C. Neme Energy Futures Group
Interrogatories of Energy Probe Research Foundation

Exhibit L, GEC.1 - Energy Probe - 1

Ref: L, GEC1, Neme Report, Page 4

Preamble: Even if \$2 per month per non-participating residential customers were an appropriate limit for the impact of gas DSM, the limit should be expressed as \$2 per month *net of both DSM spending and DSM benefits to non-participants.*

- a) Please Provide the EGDI and Union 2014 DSM cost per Month/residential customer for non-participants.**
- b) Please provide the 2015 estimates from EGDI and Union (excluding the additional EGDI Budget of \$5 million).**
- c) Confirm whether Mr. Neme is proposing that the TRC plus analysis include a monetary amount for GHG. If so, indicate the amount and point to the policy decisions for this.**
- d) Please explain in detail the Cost/Benefit “Equation” referred to in the reference, including assumptions.**
- e) Please provide the complete analysis that shows whether the \$2/month/residential customer is/is not appropriate.**
- f) Please explain “Mr. Chernick has found that Enbridge’s avoided distribution costs are actually three to five times higher than Navigant estimated for the Company”.**
- g) Please explain why Mr. Neme claims Navigant’s AC analysis is flawed and describe/discuss the differences from Navigant’s Avoided Cost analysis (Exhibit C/T1/S4 Summary Table 10). Please provide a clear indication how this has been changed in your analysis e.g. Table 3 and provide supporting reasons.**

Exhibit L, GEC.1 - Energy Probe – 2

Ref: L GEC.1, Neme Report Page 9, Figure 1 and Page 15

Preamble: The incremental annual savings forecast by Ontario’s utilities equates to approximately 0.6% (Union) to 0.7% (Enbridge) of annual sales to customers other than electric generators over the 2016-2020 period. As Figure 1 shows, leading jurisdictions have already achieved savings levels (actuals for 2014) that are on the order of twice the average of what Enbridge and Union are forecasting to achieve annually over the 2016-2020 period.¹³ Like the Ontario utilities, utilities in these jurisdictions all have both cold winter climates and very long histories of running gas efficiency programs.

- a) Please provide and explain all the criteria for selecting “Leading Jurisdictions”.**
- b) Why are Canadian jurisdictions e.g. Fortis, excluded from the leading jurisdictions or simply just excluded from the sample?**
- c) Please provide for the selected leading jurisdictions the costs (\$/month) of DSM/CDM for a typical non-participating residential customer.**
- d) Please provide the average spend for all gas utilities in the US. Compare to the avg. for leading jurisdictions in Figure 1 (if 2014 data not available please use another year).**
- e) Please provide the Annual DSM Spend % as a percentage of sales for Canadian Gas Utilities (latest year available data).**
- f) Please provide the costs (\$/month) of DSM/CDM for a typical non-participating residential customer for Canadian Gas Utilities.**
- g) Please provide the average spend (\$/month/residential customer) for Ontario Electric Utilities, Normalize customer delivered energy cost to an equivalent monthly bill impact comparable to EGDI and Union.**

Exhibit L, GEC.1 - Energy Probe – 3

Ref: L, GEC.1, Neme Report Pages 15 and 16

Preamble: Natural gas accounts for approximately 30% of all greenhouse gas emissions in the province, so some portion of the *additional future emission reductions will almost certainly have to come from the natural gas sector.*

- a) Please indicate the sources/data for this statement. Indicate if the figure includes downstream (end use) and/or upstream NG production, transmission.
- b) Clarify the statement that *“additional future emission reductions will almost certainly have to come from the natural gas sector.”*
- c) Specifically explain why NG will be targeted, relative to other higher Carbon Fuels.
- d) Please provide your understanding of when and how Trade and Cap will be applied in Ontario to the downstream natural gas sector. Link your response to the assumptions used in the GHG estimates and calculations used by Mr. Chernick.

Exhibit L, GEC.1 - Energy Probe – 4

Ref: L, GEC.1, Neme Report Pages16/17; Table 3 and Footnotes 36-42

Preamble: Mr. Chernick’s preliminary estimates are that the value of carbon allowances can be expected to be on the order of \$20 USD per ton per year at the start of a carbon cap and trade system, and increase to more than double that amount by the end of a an average gas efficiency measure’s 15 to 20 year life. Based on those estimates, the net present value of an m3 of annual gas savings that lasts 16 years (a typical average measure life) is close to \$1. Both Enbridge and Union are projecting that their filed plans will achieve average incremental annual savings of about 75 million m3 over the 2016-2020 period. Thus, the value of avoided carbon emissions would be enough to roughly offset the entire Enbridge DSM budget and to more than offset the entire Union DSM budget. As discussed further below, those are benefits that accrue to all gas ratepayers, including non-participants, once a carbon cap-and-trade regulation is put in place in Ontario.

- a) Please provide the worksheets for all Table 3 calculations (Excel Format please).
- b) Please provide a list of all assumptions and sources for input data. Specifically provide:
 - The long term gas price forecast
 - The load profiles equivalent to those used by Navigant

Exhibit L, GEC.1 - Energy Probe – 5

Ref: L, GEC.1, Neme Report Page 27

Preamble: Increasing home retrofit program participation. As noted above, even after normalizing for numbers of residential customers, Enbridge is proposing to ramp up to participation levels that are roughly double what Union is proposing. Moreover, Enbridge’s proposed participation levels (between 0.6% and 0.7% of residential customers in 2020), though substantial, are still a factor of at least two or three below the annual participation levels achieved in Ontario at the end of the eco-Energy program or in other leading jurisdiction such as the United Kingdom.

- a) What changes to the Home Retrofit Programs does Mr. Neme propose to achieve higher participation rates? Include whether the requirement for two deep measures should be dropped or modified (phased) as Synapse proposes.**
- b) Indicate if the measures menu should include more options etc. Please describe/discuss your proposals/recommendations in detail.**
- c) Please provide a ball park estimate of the cost per home for the proposed enhanced home retrofit programs.**
- d) Please provide an estimate/example corresponding to changes to the RA targets and scorecards for the Residential Home Retrofit Programs.**

Exhibit L, GEC.1 - Energy Probe – 6

Ref: L, GEC.1, Neme Report Page 7 and page 35

Preamble: Enbridge’s Market Transformation and Energy Management metrics should be changed in several ways. If the principle purpose of those programs is to either directly or indirectly drive savings, then they belong in the Resource Acquisition portfolio supporting the Resource Acquisition performance metrics. (p35)

- a) Please provide more detail regarding the changes to the MT Scorecards for each of Union and EGD.**
- b) Specifically provide a “Strawman” Scorecard and Incentive Structure corresponding to the proposed changes**

Exhibit L, GEC.1 - Energy Probe - 7

Ref: L GEC.1, Neme Report Page 36

Preamble: The number of home ratings in 2016 (596) is lower than what was actually achieved in 2014 (662). That clearly makes no sense. Moreover, it is only projected to roughly double by 2020. Again, that is not a path to market transformation.

- a) Confirm Mr. Neme participated with stakeholders and EGDI in developing a Settlement Proposal for 2015 RA and MT Budgets and Targets.**
- b) With reference to EGDI TC Response JT1.36 part (a) and Attachment, please provide your assessment of EGDI's 2015 "Rollover Targets" and the explanation EGDI provided in part (b) referencing Exhibit I.T2.EGDI.CCC.11.**
- c) Please provide any similar comments on Union's 2015 Targets and Budgets including the apparent decrease in cost effectiveness (\$/m3) for certain RA and MT programs.**

Exhibit L, GEC.1 - Energy Probe – 8

Ref: L, GEC.1, Neme Report Page 44

Preamble: Union's has requested approval of infrastructure expansion projects (EB-2015-0179 - Community Expansion Application).

Please provide comments as to how Targeted DSM should/should not be considered in such Community Expansion projects.