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December 21, 2012

Mrs Kirsten Walli
Board Secretary
Ontario Energy Board
26th floor
2300 Yonge Street
Toronto, ON
M4P 1E4

RE: EB-2012-0337 INTERROGATORIES for APPrO

Dear Ms Walli,

I enclose 2 copies of interrogatories by GEC to APPrO on its evidence regarding Union's DSM Plan for Large Volume Customers. These have also been uploaded to the RESS and are being emailed to all parties.

Sincerely,

(Mr.) Kai Millyard
Case Manager for the
Green Energy Coalition

encl.

Cc: All parties

GEC Interrogatories to APPrO
EB-2012-0337
December 21, 2012

Evidence of Navigant Consulting:

1. Does Navigant agree that the observations in its evidence are limited to gas-fired electricity generators and are not necessarily applicable to large industrial gas customers who are not electricity generators?
2. Please explain what is meant by "A census approach" referred to at page 8.
3. Navigant reports that it obtained results from 12 companies. Did Navigant attempt to calculate the level of statistical significance in the survey results to support a conclusion that the results are representative of the rate groups or of the power generating customers in the rate groups? If so please provide.
4. What steps did Navigant take to ensure that there was no bias introduced into its survey results due to a tendency for APPRO members who most want change to participate in the survey?
5. What qualifications does Mr. Williams have in the fields of polling and statistical analysis?
6. Did the survey contain any questions that are not reported upon fully in the evidence filed? If so please provide.
7. At page 2 Navigant reports that 86% of members surveyed have an existing energy management program in place, yet at page 8 Navigant indicates that it received responses from only 12 of 19 companies it approached (63%). Please reconcile these statements.
8. Please explain why the results do not add to 100% in Table 4 on page 17.
9. Do the 7 responses in Table 5 at page 17 indicate that only 7 of the 19 reported respondents responded to this question? How many distinct companies did these 7 responses come from?
10. In which states are power generators served by gas distribution utilities?
11. On p. 2, Navigant states that "Many US states do not have independent natural gas generators." Which states do have them?
12. On p. 2, Navigant states that "One of the considerations in the Minnesota Public Utilities Commission's decision to exclude generators from paying the DSM CRM was that this would effectively result in electricity consumers paying these costs twice..."
 - a. Does Navigant agree with this conclusion?
 - b. What is the basis for this statement?
 - c. What were the other reasons or considerations?
 - d. To the extent that a gas generator's cost of producing electricity is sufficiently lower than the marginal cost of production that sets wholesale market prices for electricity,

isn't it true that the extra cost on the generators that is imposed by a gas DSM CRM would not have any effect on electricity consumers? For example, if the wholesale market clearing price of electricity was \$0.050/kWh and a generator could sell electricity on the wholesale market for \$0.040/kWh without paying a gas DSM CRM or \$0.041/kWh while paying a gas DSM CRM, wouldn't the imposition of a gas DSM CRM have no impact on electricity consumers?

- e. To the extent that the savings from a gas DSM offering to generators were worth more in net present value terms than the cost of the measures (including both the DSM program cost recovered through a DSM CRM and the generators' own contribution to the cost of the measures), would Navigant agree that electricity consumers would not pay a second "cost"?
 - f. Please provide a copy of the Minnesota decision that documents the reasons for excluding generators from paying the DSM CRM.
13. Does Navigant believe that all cost-effective efficiency investments (with the term cost-effective defined to mean those passing a TRC test) have been captured by APPrO members? If so, what is the basis for this conclusion? If not, why not?
14. On p. 3, Navigant makes reference to Arizona, Colorado, New Mexico and several other states which "allow consumers to opt-out or 'self-direct' based on some level of consumption or demand." In which of these states is there an "opt out" option? In which is there a "self direct" option? In which are there both options?
15. Table 1 includes both Opt-Out and Self Direct states. Please produce a Table akin to Table 1, but including only "opt-out" states.
16. Navigant notes (p. 5) that in Minnesota generators are not charged a gas DSM CRM if they are over 50 MW in size.
- a. What portion of the generators served by Union Gas are above that threshold?
 - b. What portion of generators which are members of APPrO are above that threshold?
17. On pp. 5-6, Navigant summarizes conclusions from its survey of Minnesota, Michigan, Wisconsin, Illinois and Ohio. Please produce a table that provides the following information for each of these states:
- a. Whether the state has a specific carbon dioxide emission reduction commitment in place
 - b. Whether the state has independent unregulated electricity generators
 - c. Whether the gas-fired electricity generators are served exclusively by gas distribution companies
 - d. Whether the state ranks among the top 15 states, in terms of utility DSM efforts, as ranked according to ACEEE's most recent Energy Efficiency Scorecard.
18. On p. 8, Navigant states that it surveyed all APPrO members. It further states that 15 responses were received from plant managers representing 12 different companies. Finally, it notes that not all APPrO members receive service from Union.
- a. How many of the 15 respondents representing 12 companies receive service from Union?

- b. What is the total aggregate annual gas usage (e.g. in 2011) of the respondents who receive service from Union?
 - c. When Union Gas reports the number of power generator customers it has, is that number analogous to what Navigant is calling “respondents” to its survey or to what Navigant is calling the “companies” that responded to its survey?
 - d. If the results in Appendix B are expressed in terms of respondents, please provide results based on companies which are Union customers, not respondents.
19. Regarding Table 3 (summarizing responses to Question 3) in Appendix B to Navigant’s report:
- a. What is meant by “internal resources” spent on the average capital costs of efficiency investments?
 - b. What is meant by “external resources” spent on the average capital costs of efficiency investments? What are the external sources other than Union Gas DSM incentives?
 - c. What is meant by “internal” operating costs?
 - d. What is meant by “external resources” related to operating costs?
 - e. What is meant by “average operating costs over period”? Are these averages for 3 years? Or are they annual averages?
 - f. What exactly does the “incentive received” of \$29,667 mean? Is this the average incentive for the 3 projects that received incentives? Is it the sum of incentives received for the 3 projects that received incentives divided by the 8 reported expenditures? Or it is something else?
 - g. Did Navigant only ask about Union Gas financial incentives? Or did it also ask about technical assistance or other types of support Union Gas may have provided to the customers? If it did ask about non-financial support Union may have provided, please provide all responses made by customers in response to such questions.
20. Regarding Table 4 (summarizing responses to Questions 4-8 & 10) in Appendix B to Navigant’s report:
- a. The sum of the percentages answering “yes” and “no” to these questions ranges from a low of 26% (responses to Question 5) to a high of 41% (responses to Question 10). Does that mean that the remaining 59% to 74% of customers asked these questions did not respond? If not, please explain what it does mean.
 - b. Please provide the actual number of “yes” and “no” responses to each of these questions (rather than just percentages).
 - c. On p. 8 of its report, Navigant states that 62% of those who received incentives to assist in a DSM project “indicated that they would have implemented the project within 3 years had they not received that assistance”. Please reconcile that value with the summary of responses provided in Table 4. Specifically, please provide a detailed break-down of the mathematical computation of the 62% value provided on p. 8.
 - d. On p. 8 of its report, Navigant states that 47% of respondents indicated they had received some technical or financial assistance from their natural gas supplier. However, the summary of responses to Question 4 suggests that only 37% of respondents answered the question regarding assistance from their gas supplier, and of those 62% (23% who answered “yes” divided by 37% who answered either “yes” or “no”) responded affirmatively. Please reconcile the difference between that value and the 47% value report on p. 8. Specifically, please provide a detailed break-down of the mathematical computation of the 47%.

21. In question #6 in this survey, Navigant asked whether efficiency investments made by customers would have been made within three years if Union Gas incentives were not provided.
- Why did Navigant ask only about financial incentives and not about technical assistance and /or other forms of support?
 - Navigant conducts many DSM evaluations across North America, including studies to assess free ridership, spillover and net-to-gross ratios for large, custom C&I programs. When it conducts such studies, how many different questions related to free ridership, spillover and/or net-to-gross ratios would it typically ask customers?
 - Would Navigant agree that because it asked only one question about only financial incentives, one could not draw conclusions about free ridership associated with the Union program from its survey results? If not, why not?
 - Would Navigant agree that none of the questions it asked in this survey shed any light on potential for spillover effects? If not, why not?
22. Appendix B does not appear to provide any summary of responses to survey Question 7b (regarding the quantity of savings achieved as a result of Union Gas' program). Why not? If there were responses, please provide them.
23. Please indicate if any of the summary of responses to questions provided by Navigant in its report (e.g. the percentage who used Union DSM assistance, the percentage who would have proceeded with the efficiency investments absent Union incentives, etc.) are statistically significant at the 90/10, 90/15 or 90/20 level of precision.
24. Has Navigant conducted any DSM Efficiency Potential studies for Ontario? If so, do these studies confirm that there is no opportunity for cost-effective efficiency investment among gas fired electricity generators that would not occur naturally within three years?
25. Has Navigant conducted any free ridership or measure persistence analyses for DSM measures delivered to large industrial customers, including power generators in Ontario in the last 10 years? If so please provide copies. Do these studies conclude that there is 100% free ridership within 3 years or that there is measure persistence of three years or less for all measures due to 'natural' conservation among power generation customers?
26. Does Navigant conclude that all opportunities for societally cost effective energy efficiency among gas fired power producers has occurred within three years of the opportunity arising in recent years? If not, what proportion would be expected to occur 'naturally' (i.e. without DSM program support)?
27. Has Navigant compared the level of energy efficiency among large industrial customers, and in particular among gas power generators, in jurisdictions where opt out is allowed or no CRM occurs versus in jurisdictions with DSM programs that cover that customer segment? If so, please provide all results.
28. Please provide any data or analysis of payback criteria for energy efficiency investment used by the APPRO members surveyed.

Evidence of Sean Russell

29. Does LDE utilize maximum payback period, hurdle rate or other economic test to analyse energy efficiency investment choices? If so please provide.
30. Does LDE utilize tests other than economic return to the company to evaluate efficiency investment opportunities? If so please provide.
31. Has LDE ever undertaken an analysis of efficiency opportunities that finds measures that do not meet its economic investment criteria? Please provide.
32. Does LDE believe there are energy efficiency opportunities that do not meet its economic criteria for investment?
33. Does LDE agree that there can be gas system benefits beyond those accruing to the participant due to DSM?
34. Does LDE agree that lowering gas demand can reduce commodity or transportation costs due to a shift in the demand versus supply balance?
35. Does LDE believe that there are societal benefits beyond those accruing to the participant due to DSM?