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August 4, 2015

Ms Kirsten Walli
Board Secretary
Ontario Energy Board
27th floor
2300 Yonge Street
PO Box 2319
Toronto, ON
M4P 1E4

RE: EB-2015-0049 & 0029
GEC Interrogatories on evidence from OSEA & Board Staff

Dear Ms Walli,

Please see enclosed two copies of GEC's interrogatories for OSEA and Board Staff. These have been distributed by email to all parties, and uploaded to the Board's RES system.

Sincerely,

original signed by

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

ec: All parties

EB-2015-0029 EB-2015-0049
2015-2020 Gas DSM Plans Enbridge Gas Distribution / Union Gas

Green Energy Coalition

Interrogatory Questions for

Ontario Sustainable Energy Association

1. Re: Combined Heat & Power plants. Do the authors agree that while CHP improves energy efficiency compared to separate gas use and centralized electricity generation, it can require increased gas consumption depending upon what electricity generation it is displacing and therefore, in considering the nature and extent of any possible efforts to foster CHP, the Board should have regard to the net impact on greenhouse gas emissions as well as the net economic implications?

Interrogatory Questions for

Board Staff

Cost-effectiveness

1) In the absence of constraints from the Board's Guidelines, would Synapse agree that in setting 6 year DSM budgets economically optimal plans should seek to ramp up at a manageable rate to obtain all cost-effective and achievable efficiency, from all rate groups?

Avoidable costs

2) Pp. 8-9: Does Synapse agree that each of the following components should be included in the avoided costs of the gas utilities in estimating the benefits of DSM?

a) Reductions in the cost of complying with greenhouse gas emission regulations (e.g., a carbon price);

b) Commodity price suppression effects (DRIPE);

c) Avoided capital investment and related operating costs for distribution system capacity;

d) Avoided capital investment and related operating costs for utility-owned transmission and storage;

e) The avoidable costs of contracts for new upstream transportation infrastructure (e.g., on TCPL) to serve load growth.

If the answer to any portion of this question is anything other than an unqualified "yes," please explain your answer.

Budgets

3) P. 101: "The more customers that participate, the less of an impact the rate increases required to fund energy efficiency will have on customers' bills…" Does Synapse agree that each of the following components would reduce the rate effects of the gas DSM portfolios:

a) Reductions in the cost of complying with greenhouse gas emission regulations (e.g., a carbon price);

b) Commodity price suppression effects (DRIPE);

c) Avoided capital investment and related operating costs for distribution system capacity;

d) Avoided capital investment and related operating costs for utility-owned transmission and storage;

e) Reduced purchases of the highest-priced gas that the utilities would have purchased each day, resulting in a lower average cost of gas in rates;

If the answer to any portion of this question is anything other than an unqualified "yes," please explain your answer.

Avoidable costs

4) Please provide Synapse's best estimate of natural gas supply DRIPE in the North American markets.

Avoidable costs

5) If Synapse is aware of any estimates of the delivery DRIPE for natural gas into Ontario, please provide such estimate.

Avoidable costs

6) Please provide Synapse's best estimate of the prices of carbon allowances in a cap-and-trade program to achieve:

a) The reductions required by the US Clean Power Plan final rules.

b) The reductions to which Ontario is committed (reduction of jurisdictional emissions by about 26% from 2013 to 2030).

Avoidable costs

7) Is Synapse aware of any analysis of the marginal cost or market price required for carbon reductions of the magnitude and speed of Ontario's commitment? If so, please provide cites to those studies.

Infrastructure planning

8) Regarding the discussion of gas infrastructure planning in Section 10, please explain whether peak-hour gas demand driving the need for additional gas infrastructure will be affected by system-wide gas DSM.

a) Please provide any studies of which Synapse is aware that estimate those effects.

Avoidable costs & Infrastructure planning

9) Regarding the statement that "[i]t will be particularly important to modify avoided costs to reflect the value of avoiding peak hour gas consumption" on page 129:

a) What method would Synapse recommend for estimating the effect of reductions in peak hour gas consumption due to DSM on infrastructure investment?

i) Include studies, reports, memoranda, regulatory filings and other documentation available to Synapse that explain and illustrate this method.

b) Enbridge's analysis of avoided distribution infrastructure computes savings per peak-day m3. Does Synapse believe that the using peak-hour, rather than peak-day, conditions will significantly affect the value of gas DSM?

c) Does Synapse believe that the distribution system is designed for normal-weather peak loads or design peak loads?

i) Should infrastructure savings be computed per m3 of normal peak load or m3 of design-peak load?

d) Does Synapse believe that utility-owned transmission and storage infrastructure (e.g., Union's Dawn storage, Union's Dawn-Parkway transmission, and Enbridge's GTA Segment A transmission) should be included as avoidable infrastructure?

i) To the extent that lower load allows a utility to reduce the share of utility-owned transmission and storage infrastructure that is charged to distribution customers (through reallocation, release, or long-term contract), should the utility treat that as an avoided cost?

e) Is Synapse aware of any specific infrastructure projects that are under consideration by Enbridge for deferral through targeted DSM?

f) What process should Enbridge follow to identify and pursue avoidable or deferrable infrastructure projects?

g) Does Synapse have an opinion as to how long it should take Enbridge and Union to identify targeted infrastructure projects and ramp up DSM in the relevant areas?

Program types

10. Section 5.2.3, p. 30: Synapse states that "both utilities should provide customers with zero or low interest financing to address lack of funding…"

a. Is Synapse suggesting that financing offers be (1) in lieu of rebates or other financial incentives; (2) as a complement to rebates or other financial incentives (i.e. the customer can take both); or (3) as an optional alternative to rebates or other financial incentives?

b. Does Synapse agree that there is a program (DSM) cost to buying down interest rates for financing?

c. Given prevailing interest rates and/or the best market-based interest rates Synapse believes are likely to be accessible in Ontario, what is the cost of buying a 10 year loan for a $5000 home retrofit project down to zero percent interest? Please provide an estimate even if caveats are necessary regarding the typical or best market rate that might be accessed (i.e. even if largely an illustrative example).

d. Would Synapse agree that such buy-down costs can be comparable to or even greater than the cost of rebates or other financial incentives designed to drive investment in efficiency measures? If not, why not?

e. Is Synapse aware of any examples in which the offer of financing substantially increased market penetration (i.e. an increase in the number of customers who would not have made the improvements absent the loan) of whole house retrofits or thermal envelop improvements to homes? If so, please provide examples, including estimates of the extent to which net participation or net savings increased.

f. Does Synapse believe that the offer of financing can substantially increase market penetrations of efficiency measures in other markets, or for other efficiency measures? If so, for which other markets or measures? For all such markets or measures please provide examples to support your conclusions.

Program types

11. Section 5.3.2, p. 32: Synapse states that requiring two major measures is problematic because it decreases the likelihood that some customers which have only one measure will miss an opportunity. It gives an example of a situation in which "a customer's furnace needs replacing but their insulation and other building envelop measures in sufficiently efficient." Given that all new furnace purchase in Ontario must now be condensing furnaces - and that it is good technical practice to perform air sealing (which counts as a major measure) before installing insulation - does Synapse's concern about the requirement for two major measures still hold?

Program types

12. Section 5.8.2, p. 83: Regarding large volume customers: :

a. Is Synapse aware of any evidence from Ontario or any other jurisdiction to suggest that large volume customers will acquire all cost-effective savings on their own, without utility DSM program support? If so, please document the basis for the conclusion.

b. If not, is Synapse aware of any evidence from Ontario or any other jurisdiction to suggest that large volume customers typically do not acquire all cost-effective savings on their own, without utility DSM support? If so, please document the basis for that conclusion.

c. Is Synapse aware of any evidence from any jurisdiction to suggest that well-designed self-direct programs for large customers typically have very low NTG ratios (and/or high free ridership)? If so, please provide examples and references.

Shareholder incentives

13. Section 6.2.5, p. 102: Synapse recommends that "the Board consider requiring the utilities to develop metrics that focus on program cost-effectiveness." If the utilities essentially have fixed budgets once their plans are approved, and if they do not maximize their shareholder incentive until they reach 150% of their goals, don't they already have a very strong incentive to maximize the cost-effectiveness of their programs (at least under the PAC Test) as long as the 100% targets or performance metrics are reasonably aggressive? If not, why not?

Shareholder incentives

14. Section 6.2: given the types of performance metric proposed by the utilities, does Synapse have any opinion regarding the reasonableness of the specific proposed metric values or targets? If so, please explain.

Targets

15. Section 5.4.2: Regarding the utilities' prescriptive C&I rebate program:

a. Did Synapse attempt to benchmark the utilities' proposed participation rates and/or savings from any measures in the program against the performance of other leading jurisdictions? If so, what were the results?

b. Would Synapse agree that the utilities' proposed participation rates in the program - at least for many measures - are relatively low? If not, why not?

c. Did Synapse attempt to benchmark the utilities' proposed rebate/incentive levels against those of other leading jurisdictions? If so, what were the results?

d. Does Synapse have any basis for disagreeing with the statement that the utilities could acquire significant additional savings from this program if they either increased incentive levels, moved incentives "upstream", increased marketing efforts, and/or made other changes to program design or implementation?