Northeast Midstream LP

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DELIVERED BY EMAIL AND RESS

Board Secretary
Ontario Energy Board
P.O. Box 2319
2300 Yonge Street, 27th Floor
Toronto, ON M4P 1E4P

Attention: Ms. Kirsten Walli, Board Secretary

Dear Ms. Walli:

Subject: EB-2016-0004 – Northeast Interrogatory Responses

Please find herewith Mr. Gulick's responses to interrogatories by the following parties:

Board Staff
BOMA
Energy Probe
School Energy Coalition
Union Gas Limited

Yours truly,

Joshua Samuel

Enclosed

ONTARIO ENERGY BOARD

GENERIC PROCEEDING ON NATURAL GAS EXPANSION IN COMMUNITIES THAT ARE NOT SERVED

Northeast Midstream LP ("Northeast")

Responses to Interrogatories

(Exhibit S9.Northeast)

EB-2016-0004

Filed April 22, 2016

Responses to:

Board Staff
BOMA
Energy Probe
School Energy Coalition
Union Gas Limited

NORTHEAST MIDSTREAM LP

Response to Interrogatory from
BOARD STAFF

Reference: Evidence of Northeast, Testimony of Christopher G. Gulick, Page 3

Mr. Gulick in his testimony has submitted that an expansion supplied by a new pipeline connection should consider the incremental gas transportation and commodity costs associated with the incremental pipeline, storage, and/or peak shaving capacity required to support the new load, and the projected amount of gas to be delivered using that incremental capacity. Mr. Gulick further notes that the Ontario Energy Board (OEB) has previously rejected the estimation of incremental gas costs as adding too much complexity to the Profitability Index (PI) metric.

Please explain why the OEB should revisit this issue when it has already determined that including incremental costs to the PI calculation adds more complexity to the PI metric than required.

Response:

Including the incremental gas costs in the PI calculation would add a degree of complexity, and combine expense and capital expenditures in a single analysis. However, that does not mean that the OEB should set aside any consideration of incremental gas costs when evaluating an expansion proposal. As noted on page 3 of Mr. Gulick's testimony, relying solely on the PI metric in an expansion analysis might result in some proposed expansions being excluded, if the only way that gas was to be supplied to an expansion territory was by pipeline. By considering alternate gas delivery methods and costs when evaluating the PI, the OEB could evaluate (i) whether the planned expansion was expected to be profitable from the utility's perspective, and (ii) the incremental cost to be paid by customers.

NORTHEAST MIDSTREAM LP

Response to Interrogatory from
BOARD STAFF

Reference: Evidence of Northeast, Testimony of Christopher G. Gulick, Page 3

Mr. Gulick in his testimony agrees that simulating changes in gas portfolio costs as part of calculating a rolling twelve month PI would add an unnecessary level of complexity. However, Mr. Gulick does note that LDCs in Ontario provide quarterly Weighted Average Cost of Gas (WACOG) forecasts and submit annual gas supply plans to the OEB which could allow it to monitor for long term changes in fixed and variable costs.

(a) Please explain the fixed and variable costs that are referred to in the above reference.

(b) Has Mr. Gulick used the information provided in the quarterly WACOG forecasts to monitor long term changes in fixed and variable costs? If yes, please provide the results of the analysis.

Response:

(a) Fixed costs are the fixed expense associated with procuring, storing, and transporting gas and/or supplemental fuels to a distribution utility. These typically include fixed commodity contract fees (if any), pipeline and storage reservation fees and demand charges, and other commodity-related fees that do not vary with the quantity of the gas commodity purchased, stored, or transported.

Variable costs are the per unit (E3M3, GJ, etc.) costs that are associated with procuring, storing, and transporting gas and/or supplemental fuels to a distribution utility. These typically include gas commodity costs, per unit storage fees (e.g., storage, injection, and withdrawal fees), and per unit pipeline transportation costs and fuel assessments.

To the extent a utility directly imports gas and supplemental fuels, the costs associated with importation and customs compliance would also be included in one or both of the above categories.

(b) No.

NORTHEAST MIDSTREAM LP

Response to Interrogatory from
BOARD STAFF

Reference: Evidence of Northeast, Testimony of Christopher G. Gulick, Page 4

Mr. Gulick in his testimony states that in some cases LDCs should consider alternatives other than pipelines such Liquefied Natural Gas (LNG) or Compressed Natural Gas (CNG) for supplying customers in an expansion territory.

Currently most cases involving an expansion require a leave to construct approval from the OEB for the pipeline that would serve the new community. Although the OEB requires an applicant to conduct the EBO 188 PI analysis, there is currently no requirement that the applicant compare this analysis against a "no pipeline" option such as CNG or LNG. Does Northeast Midstream recommend that the OEB insert a requirement that the costs of CNG or LNG (or any other alternative to building a pipeline) be compared to the pipeline option? Does Northeast Midstream have any suggestions for the OEB regarding how such an analysis should be conducted?

Response:

Mr. Gulick notes on page 4 of his testimony that, *in some cases*, an LDC should consider gas delivery options other than a new pipeline.

Mr. Gulick expects that a utility evaluating expansion options would consider an alternate supply option, if the pipeline option did not pass the initial PI screening of a pipeline expansion. The same PI screening process currently used could be applied by substituting the estimated cost of the alternative CNG or LNG infrastructure for the estimated cost of the pipeline.

NORTHEAST MIDSTREAM LP

**Response to Interrogatory from
BOARD STAFF**

Reference: Evidence of Northeast, Testimony of Christopher G. Gulick, Page 7

The testimony notes that the Province of Ontario is moving towards legislation that would use a cap and trade approach to price carbon emissions in order to achieve certain climate change goals.

(a) Has Mr. Gulick considered the carbon emissions impact of trucking the LNG from the liquefaction facility to the distribution network with respect to a LNG supply option?

(b) Please provide an opinion on whether the Ontario Government's initiative to price carbon emissions should have an impact on determinations made by the OEB with respect to approval of natural gas pipelines versus LNG/CNG alternatives.

Response:

(a) Not explicitly.

(b) The projected cost of carbon emissions associated with alternate gas delivery methods should be considered, provided it is done on an equal footing (e.g., marginal cost of transporting gas via pipeline versus marginal cost of trucking LNG/CNG).

NORTHEAST MIDSTREAM LP

Response to Interrogatory from BOMA

Reference: Gulick Testimony, Page 4

Please confirm that FortisBC will produce the LNG that it supplies to its customers in Whistler and Revelstoke.

Response:

Based on public information and the information referenced in footnote 3 on page 4 of his testimony, Mr. Gulick notes that FortisBC began delivering natural gas via pipeline to Whistler in August 2009.[1]

FortisBC states that Revelstoke will be supplied with LNG from the Vancouver area, which Mr. Gulick understood to mean the LNG will come from FortisBC's Tilbury LNG facility.

[1] https://www.fortisbc.com/About/ProjectsPlanning/GasUtility/PastProjects/Whistler/Pages/Pipeline-project.aspx

NORTHEAST MIDSTREAM LP

**Response to Interrogatory from
BOMA**

Reference: Gulick Testimony, Page 5

Can you provide an example(s) of a northeastern U.S. LDC:

(a) That uses LNG in conjunction with piped natural gas to show the basis on which LDC rolls in the cost of the LNG into its WACOG, the impact that has on the WACOG, and regulatory approval for that approach.

(b) Do these examples deal with the use of LNG earmarked for expansion into unserved areas, e.g. rural or small communities, as is being considered in this case, or are they more in the nature of supplemental supplies to pipeline supplied gas service to the utility's existing service area (increased demand within the area to which the utility already serves)? Please discuss fully.

Response:

A number of New England LDCs use LNG and, to a lesser extent, propane-air, in conjunction with natural gas, to supply their customers. According to 2015 information from the Northeast Gas Association,

> "the LNG storage capacity in New England among the local distribution companies (LDCs) was 16.1 Bcf (which does not include the storage at the Distrigas [LNG] terminal). Vaporization capacity for daily sendout by New England gas LDCs was approximately 1.4 Bcf/day; and liquefaction capability by the LDCs was 43,500 MMBtu/day."[2]

The costs of these fuels typically are included in the purchased gas cost, and the quantities vaporized are included in the total quantity of gas dispatched. The cost of all gas divided by the quantity of all gas becomes part of the WACOG.

Currently, LNG is used more as a peak shaving supply to supplement gas supplied by pipeline to an LDC's existing service area. However, depending upon the layout of distribution systems, some customers may be more reliant on LNG than others, but the costs typically are combined and applied to all customers.

[2] http://www.northeastgas.org/about_lng.php

One New England LDC, New Hampshire Gas Corporation in Keene, New Hampshire, currently supplies all its customers with propane-air vapor via an underground distribution system. It is Mr. Gulick's understanding these customers are billed under a separate WACOG based on the cost of propane.

There are past examples of utility customers being supplied solely by bottled propane until the distribution systems could be expanded to serve them, and the cost of this propane was included in the WACOG. The propane-only customers paid the system WACOG, not the separate cost of propane. One past example was the "Gas Routes" program offered by Northern Utilities.[3] Mr. Gulick has direct knowledge of this program because of his employment in the gas supply department of the company during the 1980s.

[3] During the 1980s, Northern Utilities was a subsidiary of Bay State Gas Co. It is now part of Unitil.

NORTHEAST MIDSTREAM LP

Response to Interrogatory from
ENERGY PROBE

Reference: Gulick Testimony, Page 6, Table 1

(a) Please explain in more detail what Table 1 is supposed to illustrate and what conclusions ratepayers should reach.

(b) Confirm most rates for gas distribution service are based on a fixed monthly charge plus a unit rate based on consumption.

(c) Confirm the fixed charge is based on system-wide costs, based on the principle of minimum system to serve.

(d) Is this evidence intended to change the fixed variable split? If so, please explain using either Union or Enbridge residential rates what is proposed.

(e) If the intent is to provide a different rate design structure for distribution systems based on in-situ LNG, please explain the rate design and illustrate how this would work for Union and EGD, as well as new entrants such as EPCOR.

Response:

(a) Table 1 is intended to illustrate the effect, under two hypothetical cost structures, on the annual gas bill of a reduction in gas use. The Low Fixed Cost scenario has a higher variable cost. Accordingly, a 20 percent reduction in gas use results in a savings of $154 as compared to the $66 in annual savings under the High Fixed Cost scenario.

Ratepayers should conclude that changes in their annual gas consumption would affect their annual gas bill by $0.35/M3 under the Low Fixed Cost scenario and by $0.15/M3 under the High Fixed Cost scenario.

(b) Rate structures and rate designs for gas distribution service vary by jurisdiction.

(c) Please see response to Part (b), above.

(d) No, it is an illustration of fixed, total, and marginal costs, and the relative impact on hypothetical, gas-only annual costs.

(e) Please see response to Part (d), above.

NORTHEAST MIDSTREAM LP

Response to Interrogatory from
SCHOOL ENERGY COALITION

Reference: Enbridge Evidence, Page 26

Enbridge's proposed community expansion projects include a number where the supply source of the natural gas will be LNG. Please provide Mr. Gulick's assessment of the preliminary analysis done by Enbridge to determine which communities' expansion projects should be supplied via traditional pipeline and which from LNG.

Response:

Mr. Gulick has not conducted that assessment.

NORTHEAST MIDSTREAM LP

Response to Interrogatory from
UNION GAS LIMITED

Reference: EB-2016-0004 – Natural Gas Expansion Generic Proceeding

Preamble: At p. 4 of the evidence (lines 101-104) it states the cost of LNG or CNG facilities "could be embedded in the cost of gas supplied".

Question:

Please state as to what extent any incremental LNG or CNG costs for gas supply to community expansion projects should be embedded (and paid for by all ratepayers) rather than being included in the feasibility analysis for each project to which they apply.

Response:

Mr. Gulick notes that the preamble refers to the cost of LNG or CNG facilities, and the possibility those facility costs might be recovered in the commodity cost of the gas distributed.

Consistent with his perspective on including incremental gas-related costs when evaluating expansion projects, Mr. Gulick believes that the feasibility analyses of expansion projects supported by LNG or CNG facilities should be evaluated in the same fashion (i.e., on a marginal basis). The analyses should also extend to evaluating the effect on net revenue rates and WACOG, if the respective incremental costs were embedded. The decision of whether or not to embed the costs of facilities or commodity purchases would be a topic for a utility and its regulator to consider.

NORTHEAST MIDSTREAM LP

Response to Interrogatory from
UNION GAS LIMITED

Reference: EB-2016-0004 – Natural Gas Expansion Generic Proceeding

Question:

(a) Has Northeast entered into any form of Franchise agreement with any community located along the north shore of Lake Superior? If so, please identify the community and provide copies of the signed agreements.

(b) If yes, please provide any tariff or rate information provided to these communities.

Response:

(a) Mr. Gulick is not aware of agreements Northeast might have with communities.

(b) Not applicable.