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May 16, 2016

BY EMAIL & BY COURIER

Ms. Kirsten Walli  
Board Secretary  
Ontario Energy Board  
2300 Yonge St, Suite 2701  
Toronto ON M4P 1E4

Dear Ms. Walli:

**Board File No. EB-2016-0004**  
**Natural Gas Service – Community Expansion Proceeding**  
**Energy Probe – Follow Questions to Northeast Midstream LP Witness**

As directed, please find the Follow Up Questions to Mr. Gulick, the witness for Northeast Midstream LP, from Energy Probe Research Foundation (Energy Probe) in the EB-2016-004 proceeding.

Should you require further information, please contact us.

Yours truly,

David S. MacIntosh  
Case Manager

- cc. Joshua Samuel, Northeast Midstream LP (By email)  
John Wolnik, Consultant to Northeast Midstream (By email)  
Christopher Gulick, Consultant to Northeast Midstream (By email)  
Khalil Viraney, Ontario Energy Board (By email)  
Brady Yauch, Consultant to Energy Probe (By email)  
Roger Higgin, Consultant to Energy Probe (By email)  
Parties of Interest (By email)

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## **Ontario Energy Board**

**IN THE MATTER OF** the *Ontario Energy Board Act, 1998*,  
S.O. 1998, c. 15, Sch. B, as amended;

**AND IN THE MATTER OF** a Generic Proceeding on Natural Gas  
Expansion in Communities that are not served.

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**Follow Up Questions to Mr. Gulick  
witness for Northeast Midstream LP  
Energy Probe Research Foundation**

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**May 12, 2016**

## Energy Probe Interrogatory and Response

EB-2016-0004  
Exhibit S9.Northeast.EP.1  
Filed 2016-04-22  
Page 1 of 1

### **NORTHEAST MIDSTREAM LP Response to Interrogatory from ENERGY PROBE Exhibit 9.Northeast.EP.1**

#### **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.

**Table 1: Comparison of Annual Gas-Only Bills under Two Hypothetical Gas Cost Scenarios**

	(a) Costs <sup>1</sup>	(b) 2,200 M3/year	(c) 1,760 M3/year	(d) Savings
<b>Low Fixed Cost</b>				
Fixed Cost	\$780	\$780	\$780	\$0
Variable Cost/M3	\$0.35	\$770	\$616	\$154
Totals		\$1,550	\$1,396	\$154
<b>High Fixed Cost</b>				
Fixed Cost	\$1,300	\$1,300	\$1,300	\$0
Variable Cost/M3	\$0.15	\$330	\$264	\$66
Totals		\$1,630	\$1,564	\$66

1/ Assumed for purposes of illustration - not filed rates.

Q. Please explain how the cost structure influences the costs paid by a customer.

A. The following Table 1 provides an illustration of a hypothetical bill under two separate scenarios – one with a low fixed cost and high variable cost, and one with a high fixed cost and low variable cost. Since, under either scenario, the fixed costs do not vary with changes in consumption, the change in the customer's bill is determined by the magnitude of the variable cost.

Comparing the Savings values in column (d) of Table 1, the change in the low fixed cost scenario (\$154) resulting from a 20 percent change in consumption is 2.3 times that of the change in the high fixed cost scenario (\$66). This is because the variable cost in the low fixed cost scenario (\$0.35/M<sup>3</sup>) is 2.3 times the variable cost in the high fixed cost scenario (\$0.15/M<sup>3</sup>). Conversely, the effect of increasing consumption would be 2.3 times greater under the low fixed cost than high fixed cost scenario.

**Interrogatory 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/M<sup>3</sup> under the Low Fixed Cost scenario and by \$0.15/M<sup>3</sup> 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.

**EP Follow-up questions.**

1. Please provide the inputs and assumptions to the options in Table 1
2. Provide the specific basis or references for the fixed and variable costs of each option
3. Which of the higher or lower fixed cost corresponds to a scenario of a hypothetical gas utility service including upstream and distribution costs.
4. Conversely which fixed costs correspond to an LNG service including gas supply costs Liquefaction, transportation vaporization and distribution?
5. What is the basis of the variable cost for pipeline natural gas e.g. 35 cents/m<sup>3</sup>
6. What is the basis of the variable cost of LNG gas e.g. 15 cents per m<sup>3</sup>.
7. Does either Scenario at a high level approximate to the ratio of fixed/ variable costs of NG pipeline service to LNG service.

8. Does either Scenario approximate at a high level to the ratio of fixed/ variable costs of pipeline and LNG service
9. In cooperation with Northeast LP will Mr. Gulick provide at a high level an illustrative comparison of the costs and unit rates for Pipeline service and LNG Service for an un-serviced community that Enbridge indicates is a potential candidate for LNG service.

May 12, 2016