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BY E-MAIL

October 4, 2022

Nancy Marconi
Registrar
Ontario Energy Board
2300 Yonge Street, 27th Floor
Toronto, ON M4P 1E4

Dear Ms. Marconi:

**Re: Enbridge Gas Inc. (Enbridge Gas)
Application for Panhandle Regional Expansion Project Approval
OEB File Number: EB-2022-0157**

Please find attached OEB staff follow up questions for the Technical Conference to be held on October 6, 2022. OEB staff intends to ask Enbridge Gas to respond to these written questions by way of an undertaking at the Technical Conference. The attached document has been forwarded to the applicant and to all other registered parties to this proceeding.

Yours truly,

Original Signed By

Zora Crnojacki
Senior Advisor, Natural Gas Applications

Encl.



**OEB Staff Written Questions
Technical Conference
October 6, 2022**

**Application for Panhandle Regional Expansion Project Approval
EB-2022-0157**

October 4, 2022

Staff Follow-up Question #1

Reference: Enbridge Gas Response to Interrogatory FRPO.13

Preamble:

Enbridge Gas stated in its response to interrogatory FRPO.13: *“If the [Brighton Beach GS (BBGS)] pressure constraint was to be reduced, the new pressure constraint would shift to West Windsor Power Generation (“WWPG”). WWPG is located immediately adjacent to BBGS with the same delivery pressure constraint of 1724 kPag. Many other distribution stations in the City of Windsor near BBGS have similar pressure constraints.”*

The responses goes on to say, *“The distribution system downstream of the Leamington North Gate operates at 1,900 kPag”.*

Questions:

- a. Are the “many other distribution stations in the City of Windsor near BBGS” that have similar pressure constraints as BBGS driven by customers for which Enbridge Gas has a minimum pressure obligation? Please explain in detail.
- b. Are firm transportation contracts for customers served via the Panhandle System containing minimum pressure obligation restricted to power generation customers?
- c. What is the driver for the distribution system downstream of the Leamington North Gate Station that operates at 1,900 kPag? Is the driver for the operating pressure the size of the distribution pipe downstream of the Leamington North Gate Station or customers minimum pressure requirements? Please explain in detail.
- d. Do all of Enbridge Gas’s firm contract customers served by the Panhandle System have a minimum pressure obligation in their transportation contracts?
- e. Enbridge Gas provides contract transportation service to BBGS, East Windsor Cogeneration Centre, West Windsor Power Plant, Windsor-Essex Power Plant plus other large and small-scale gas-fired generators in the Windsor-Essex Region served via the Panhandle System. Enbridge Gas in its response to FRPO.13 indicates that it has a minimum pressure obligation of 1,724 kPag (250 psig) to BBGS and the West Windsor Power Plant. OEB staff understands that gas-fired generation stations using combustion turbines require a turbine inlet natural gas pressure greater than 1,724 kPag.

- i. What is the range of actual delivery pressure to each of the aforementioned gas-fired generation customers?
- ii. Which of the gas-fired generators have their own on-site compression capability?

Staff Follow-up Question #2

References: Enbridge Gas Response to Interrogatory OEB Staff.12
EB-2022-0088, Exhibit D, Tab 1, Schedule 1, p. 1

Preamble:

A comparison of the project costs for the Panhandle Loop and the Panhandle Reinforcement Project is set out in the below table.

Table 1

Item No .	Description	(a) Current Project Panhandle Loop	(b) Comparison Forecast (2017 PRP) (EB-2016-0186)	(c) Comparison Actual 2017 PRP (EB-2016-0186)	(d) =(a) - (c) Variance to Actual
	<i>Pipeline Diameter Length (km)</i>	<i>NPS 36</i>	<i>NPS 36</i>	<i>NPS 36</i>	
	<i>Pipeline Material</i>	<i>19km Steel</i>	<i>40km Steel</i>	<i>40km Steel</i>	
1	Materials	56,600,000	23,800,000	24,480,000	32,120,000
2	Labour	124,100,000	203,754,000	202,374,000	(78,274,000)
3	Contingency	19,200,000	34,133,000		19,200,000
4	Interest During Construction	3,500,000	2,781,000	1,837,000	1,663,000
5	Total Direct Capital Cost	203,400,000	264,468,000	228,691,000	(25,291,000)
6	Indirect Overheads	43,200,000	-		43,200,000
7	Total Project Cost	246,600,000	264,468,000	228,691,000	17,909,000
8	Total Cost per km	12,979,000	6,612,000	5,717,000	7,262,000
9	Material Cost per km	2,979,000	595,000	612,000	2,367,000
10	Labour, External permitting and land, and Outside Services per km	6,532,000	5,094,000	5,059,000	1,473,000

The proposed project costs for the Dawn to Corunna project are set out in the table below.

Table 2

<u>Item #</u>	<u>Description</u>	<u>Pipeline Costs</u>	<u>Ancillary Costs</u>	<u>Total Costs</u>
1.0	Materials	\$11,800,354	\$36,643,592	\$48,443,946
2.0	Construction & Labour	\$51,310,846	\$28,993,020	\$80,303,866
3.0	External Permitting & Lands	\$15,322,222	\$0	\$15,322,222
4.0	Outside Services	\$19,230,385	\$15,702,325	\$34,932,710
5.0	Direct Overheads	\$1,295,000	\$0	\$1,295,000
6.0	Contingency	\$13,180,351	\$10,816,348	\$23,996,699
7.0	IDC	\$2,093,000	\$0	2,093,000
8.0	Project Cost	\$114,232,158	\$92,155,285	\$206,387,443
9.0	Indirect Overheads & Loadings	\$26,277,051	\$18,085,209	44,362,260
10.0	Total Project Costs	\$140,509,209	\$110,240,494	\$250,749,703

NOTE:

The total costs set out in Table 1 include abandonment of the existing seven CCS compressor units K701-K703 and K705-K708 amounting to \$14.5 million.

Questions:

- a) Please separate the Panhandle Loop costs into pipeline costs and ancillary costs, as applicable, using the same itemized cost descriptions as in Table 1 to allow for a comparison of only the pipeline costs between the Panhandle Loop and the Dawn to Corunna project.

- b) In response to this question:
 - i. Please provide a table, using the same itemized cost description as in Table 1, separately comparing the pipeline costs between the Panhandle Loop and the Dawn to Corunna project. OEB staff is seeking to compare the material and labour costs per km of the Panhandle Loop and a recent proposed project.

 - ii. Please include a discussion of any material differences between the two projects that would lead to significant cost differences with respect to the pipeline only costs, as applicable.

Staff Follow-up Question #3

References: Enbridge Gas Response to Interrogatory OEB Staff.15 (c)
Enbridge Gas Response to Interrogatory ED.14 (a)
Exhibit E, Tab 1, Schedule 1, p. 7

Preamble:

Enbridge Gas noted that the natural gas price of \$0.14/m³ used in the Stage 2 DCF analysis is the 2021 average effective price determined using the posted effective price on the OEB's website.

Enbridge Gas noted that the Stage 2 NPV energy cost savings are estimated to be in the range of approximately \$214 million over a period of 20 years to \$335 million over 40 years.

Question:

- a) Please advise whether the Stage 2 NPV energy cost savings would be in the range of approximately \$182 million over a period of 20 years to \$284 million over 40 years if the 2022 average effective price (\$0.26/m³) was used in the analysis instead. If this is not correct, please provide the correct NPV energy cost savings using the 2022 average effective price for natural gas.