

FRPO INTERROGATORY #11

INTERROGATORY

REF: Exhibit D1, Tab 2, Schedule 3, page 9, Table 1 and page 12, paragraph 35

Preamble: We would like to understand better the consideration of the total cost of supply from different sources. Paragraph 35 states: *“The shift from long haul capacity to short haul capacity is contributing to a lower cost gas supply portfolio, on a per unit basis. Landed cost was considered in all contracting decisions made for 2017, weighed against the other three gas supply principles.”*

For each of the sources of gas in Table 1, please provide the landed cost on a C\$/GJ basis.

- a) Does this landed cost take into account redelivery to EGD franchise from storage in the winter (i.e., storage cost, M12, STS, etc.)?
- i) If yes, please describe how those costs are calculated and provide the comparative costs for each source.
  - ii) If not, please describe how Enbridge makes the determination of buying at a Hub and piping to Ontario versus buying similar quantities landed in-franchise or at Dawn in the winter.

RESPONSE

See the table below for a landed cost analysis of most supply sources found in Table 1. The following sources of supply were not included in the table below:

1. Ontario Production: this supply source is de minimis and is not considered when evaluating incremental transportation capacity.
2. Peaking: this is a callable supply arrangement used to meet near-design day demand requirements and is not considered when evaluating incremental transportation capacity.

Witness: D. Small

**Summary of Landed Cost Analysis: Delivered to Enbridge CDA (\$C/GJ)**

Pipeline/Service	Path	Pricing Point	2018
TCPL/FT-LH	Empress-to-Enbridge CDA	Empress	4.650
TCPL/FT-SH	Niagara-to-Enbridge Parkway CDA	Niagara	3.062
Union/M12 & TCPL/FT-SH	Dawn-to-Union Parkway Belt-to-Enbridge CDA	Dawn	3.836
Vector/FT-1 & Union/M12 & TCPL/FT-SH	Chicago-to-Dawn-to-Parkway-to-Enbridge CDA	Chicago	4.103
NEXUS & Union/M12 & TCPL/FT-SH (Base)	Dominion South-to-Milford Junction-to-Dawn-to-Parkway-to-Enbridge CDA	Dominion South	4.525

**Average Commodity Prices (\$C/GJ)**

Pricing Point	2018
Chicago	3.402
Dawn	3.478
Dominion South	3.049
Empress	2.521
Niagara	2.810

**Average Foreign Exchange Rate**

	2018
C\$/US\$	1.259

**Average Demand Charge (C\$/GJ)**

Pipeline	Path	2018
TCPL	Empress-to-Enbridge CDA	1.827
TCPL	Niagara Falls-to-Enbridge Parkway CDA	0.238
TCPL	Union Parkway-to-Enbridge CDA	0.199
UNION M12	Dawn-to-Parkway/EGT	0.112
Vector	Chicago-to-St. Clair	0.286
Vector	St. Clair-to-Dawn	0.019
NEXUS (Base)	Dominion South-to-Milford Junction	0.834
NEXUS (Base)	Milford Junction-to-Dawn	0.191

**Average Abandonment/ACA Charge (C\$/GJ)**

Pipeline	Path	2018
TCPL	Empress-to-Enbridge CDA	0.1951
TCPL	Niagara Falls-to-Enbridge Parkway CDA	0.0100
TCPL	Union Parkway-to-Enbridge CDA	0.0067
UNION M12	Dawn-to-Parkway/EGT	0.0000
Vector	Chicago-to-St. Clair	0.0017
Vector	St. Clair-to-Dawn	0.0004
NEXUS	Dominion South-to-Milford Junction	0.0017

**Average Fuel Ratio**

Pipeline	Path	2018
TCPL	Empress-to-Enbridge CDA	4.261%
TCPL	Niagara Falls-to-Enbridge Parkway CDA	0.248%
TCPL	Union Parkway-to-Enbridge CDA	0.186%
UNION M12	Dawn-to-Parkway/EGT	0.761%
Vector	Chicago-to-St. Clair	1.014%
Vector	St. Clair-to-Dawn	0.000%
NEXUS (Base)	Dominion South-to-Milford Junction	2.100%
NEXUS (Base)	Milford Junction-to-Dawn	0.461%

Witness: D. Small

- (a) When the Company prepares a landed cost analysis it includes the cost of the commodity plus the cost of the incremental transportation capacity required to deliver the gas to the franchise area. The Company will also consider: (1) the landed cost of the service relative to other available options, (2) the reliability of the service relative to existing services, (3) the diversity implications the service would have versus status quo, and (4) if the service would provide adequate flexibility for the portfolio.

Landed cost evaluations do not take into account redelivery to the EGD franchise from storage in the winter.

Whether gas is purchased at Dawn or withdrawn from storage it will require transportation on M12 so the cost of transportation is the same in both scenarios. In order to make a determination of whether or not to purchase incremental supplies at Dawn in the summer and storing that gas for withdrawal next winter versus waiting to purchase that supply at Dawn next winter an analysis would be as follows:

Forecasted Summer Dawn Price + Unit Cost of Storage + Carrying Cost vs  
Forecasted Winter Dawn Price.

Therefore, if the price spread between summer and winter prices at Dawn is greater than the value of storage then acquiring additional storage capacity would make it beneficial to acquire additional supplies in the summer versus waiting to buy that supply in the winter.