450 – 1 Street S.W.
Calgary, Alberta T2P 5H1

Tel: (403) 920-2107
Fax: (403) 920-2308
Email: catharine_davis@transcanada.com

November 26, 2015

Ontario Energy Board
P.O. Box 2319
2300 Yonge Street, 27th Floor
Toronto, ON M4P 1E4

Filed Electronically
Original by Courier

Attention: Ms. Kirsten Walli
Board Secretary

Dear Ms. Walli:

Subject: Union Gas Limited (Union) & Enbridge Gas Distribution Inc. (Enbridge)
NEXUS Proceeding
OEB File No. EB-2015-0166 / EB-2015-0175
TransCanada PipeLines Limited (TransCanada)
Final Written Argument of TransCanada

Enclosed is the Final Written Argument of TransCanada PipeLines Limited. Should you have any questions, please contact the undersigned.

Yours Truly,

TransCanada PipeLines Limited

Original signed by Matthew Ducharme for

Catharine Davis
Vice President, Law
Natural Gas Pipelines

cc: All Parties in EB-2015-0166 / EB-2015-0175

Encl.

ONTARIO ENERGY BOARD

IN THE MATTER OF the Ontario Energy Board Act, 1998, S.O. 1998, c.15 (Schedule B) s.36;

AND IN THE MATTER OF an Application by Union Gas Limited for an Order or Orders Pre-Approving the Cost Consequences associated with a Long-Term Natural Gas Transportation Contract;

AND IN THE MATTER OF an Application by Enbridge Gas Distribution Inc. for an Order or Orders Pre-Approving the Cost Consequences associated with a Long-Term Natural Gas Transportation Contract.

Final Written Argument of

TransCanada PipeLines Limited

November 26, 2015

Catharine Davis
Vice President, Law
Natural Gas Pipelines
Tel: 403-920-2107
Email: catharine_davis@transcanada.com
Fax: 403-920-2308

I. INTRODUCTION

Union Gas Limited (Union) and Enbridge Gas Distribution Inc. (Enbridge) have each filed applications with the Ontario Energy Board (OEB or Board) for an order or orders to pre-approve the cost consequences of 15-year natural gas transportation contracts. Each applicant has entered a precedent agreement (PA) for service on the proposed NEXUS Gas Transmission (NEXUS) pipeline, with service scheduled to commence November 1, 2017. Each PA sets out forecast costs,[1] and includes a right of termination without liability if the Board does not grant pre-approval.[2]

For the reasons contained in this written argument, it is the position of TransCanada PipeLines Limited (TransCanada) that both applications should be denied.

The applications must be adjudicated under the *Filing Guidelines for Pre-Approval of Long-Term Natural Gas Supply and/or Upstream Transportation Contracts* (Guidelines).[3]

The Guidelines require a two-step analysis. First, there is the threshold question of whether the supply or infrastructure contemplated by the proposed contracts is fundamentally new. Second, if this threshold is passed, the next question is whether it is more prudent for the public to assume the cost-risk of the contract, or for the proponents to bear the risk of their undertaking. In the second phase, Guidelines factors such as whether infrastructure is necessary, whether pre-approval of the cost of that infrastructure is necessary to promote infrastructure development, or to secure supply, and the cost, alternatives, and other matters of public policy are analyzed.

TransCanada respectfully submits that the applications fail to pass the first step. There is nothing fundamentally new here. The contracts underpin not only new, but also existing infrastructure, and the underlying project is a standard build to provide additional, but not new, access to an established basin.

In the event the Board finds the first step is met, TransCanada respectfully submits it is more prudent for Ontarians to deny the applications than to grant them, based on the Guidelines and an evaluation of the issues list as set out by the Board[4] for this proceeding.

In particular, TransCanada notes four factors. First, there is a lack of need. It is not necessary to grant the applications for either security or sufficiency of supply of gas for Ontario. Relatedly, it is not necessary to ensure the development of abundant supply to Ontario from the Appalachian Basin.

---

[1] The prudence review principle of no hind-sight does not necessarily apply to forecast costs; *Ontario (Energy Board) v Ontario Power Generation Inc.*, 2015 SCC 44 [*OEB Case*].
[2] Clause 9(a) of the Restated Precedent Agreement of either applicant, included in each applicant's application. See also clauses 7(c) and (d) regarding release of liability from "pre-service costs" if the Board denies these applications
[3] Ontario Energy Board, EB-2008-0280, April 23, 2009 [Guidelines].
[4] EB-2015-0166/EB-2015-0175, Procedural Order No.1, Schedule A

Second, cost. The NEXUS path is not the least-cost option, or the second-least-cost option. To the extent commodity prices and the Canadian dollar move in tandem in a low-price environment, particularly during the period in which the US dollar-denominated capital cost of NEXUS is incurred, NEXUS will become progressively less competitive.

Third, the evidence on the claimed intangible benefits to the public is at best equivocal, while the cost is certain.

Fourth, public policy favours denial. In denying the application, the Board protects the public from the cost of the applied-for tolls. The Board would also preserve the flexibility to review costs over a 15-year period, during which, if past is prologue, more options will come to the Ontario market. Finally, denial signals that the Board will continue to refrain from regulation where the normal operation of the market and competition are sufficient to protect the public interest. This preserves the possibility that Ontarians may benefit from future improvements in price.

In Section II, TransCanada presents its arguments on the applicants' failure to meet the threshold question of newness in the Guidelines. In Section III, TransCanada assesses needs, costs, benefits, risks, and the potential negative impact of NEXUS on Union and Enbridge path diversity. TransCanada's conclusion is presented in Section IV.

II. The Applications Do Not Meet the Guidelines' Threshold for Pre-Approval

A. The Guidelines' Threshold of New in its Policy Context

Board policy and decisions are clear that for pre-approval of cost consequences to be granted, the costs must be for supply or infrastructure that is fundamentally new. The Board issued the final Guidelines under cover of letter dated April 23, 2009. In the letter, the Board writes that during public consultation, costs potentially eligible for pre-approval were contextualized as those necessary for "new pipeline facilities to access new natural gas supply sources."[5] The Board stated "pre-approval of the cost consequences of long-term contracts should be limited to those that support the development of **new** natural gas infrastructure"[6] (emphasis in original). The letter echoes the conclusions of the Board from the public consultation that resulted in the Guidelines. From that consultation, the Board concluded:

> The Board is of the view that filing guidelines need to be developed to assist a utility when it makes an application to the Board for the pre-approval of long-term contracts. The Board believes that these applications should be limited to those that support the development of new natural gas infrastructure (e.g., new transportation facilities to access

[5] Ontario Energy Board, Letter of April 23, 2009 to all Participants in EB-2008-0280 [EB-2008-0280 Letter] at page 2.
[6] EB-2008-0280 Letter, page 3.

> new natural gas supply sources). The Board does not believe that the pre-approval process for long-term contracts should be used for the utility's normal day-to-day contracting, renewals of existing contracts and other long-term contracts.[7]

In EB-2010-0300/0333, the Board clarified that in addition to being limited, pre-approval of costs is intended "to serve a very specific role in the development of natural gas infrastructure" and would be granted only in the event that development is "in the interests of Ontario consumers".[8] The very specific role of pre-approval is to enable development of infrastructure to a necessary and new source of supply, where Ontario would not have access to needed supply without shifting cost and risk to the public.[9] The focus is on supply, not infrastructure for infrastructure's sake. For relevant circumstance, the Board pointed to the hypothetical case where necessary infrastructure to a new source of supply, without pre-approval, could not obtain financing.[10] The Board concluded its findings on this point by stating: "pre-approval is an unusual regulatory instrument reserved for cases where it is genuinely needed in order to enable infrastructure development."[11]

The core issue is not whether a given proposal is large. The focus is whether it is new and necessary, not for the applicant, but for Ontario. The public policy component of pre-approval reasonably leads to the inference that the Board is concerned not with infrastructure development or supply sourcing by a particular applicant, but with whether Ontario has, or can be expected to obtain without granting cost pre-approval, access to new necessary supply, and with whether Ontario can be confident that there is sufficient infrastructure to access that supply.

In this proceeding, there has also been discussion of what supply counts as new or "frontier" for the purpose of the Guidelines. Frontier has not been defined by the Board, but the consultation record leading up to the 2009 issuance of the Guidelines makes clear what participants contemplated was something extraordinary, and, for the Ontario market, previously undeveloped. In the relevant "Highlights of Consultation" section, the *2009 LTC Report* refers to the following types of supply as new: LNG, United States Rockies, and Canadian frontier production.[12] The Board subsequently noted, in an application for pre-approval of costs related to supply from the Appalachian Basin, that the frontier criterion did not necessarily refer to the novelty of supply, but to whether pipeline infrastructure in, and exiting, the producing basin was well developed:

> Pennsylvania and New York State can hardly be described as "frontier" areas, being relatively well populated with significant and mature natural gas pipeline infrastructure.

---

[7] Ontario Energy Board, Report of the Board: Draft Filing Guidelines for the Pre-Approval of Long-Term Natural Gas Supply and/or Upstream Transportation Contracts, EB-2008-0280, February 11, 2009 [2009 LTC Report] at section 3.2.
[8] Ontario Energy Board, Decision and Order in Combined Proceeding EB-2010-0300, EB-2010-0333 [EB-2010-0300/333]; Board Findings, page 7.
[10] EB-2010-0300/333, page 7.
[10] EB-2010-0300/333, page 7.
[11] EB-2010-0300/333, page 7.
[12] Section "2.1 Consultation Highlights" in the 2009 LTC Report states that in defining what is new referred to "access new resources such as LNG, United States Rockies and Canadian frontier production."; 2009 LTC Report, at page 2.

> As noted earlier, the purpose of the pre-approval process is to support the development of new transportation facilities to access new natural gas supply sources. This is clearly not the case.[13]

In argument-in-chief, Enbridge asserts that the Board should not take a narrow view of the Guidelines.[14] In contrast, in EB-2010-0300/333, the Board clarified that the application of the Guidelines is narrow. Enbridge may go on to argue that while the Guidelines do have a narrow application, the Guidelines should not be narrowly applied in this case. As will be developed below, this is a case where standard competitive forces in a well-functioning market are keeping Ontario well-supplied, with the market already increasing supply to Ontario from the Marcellus/Utica.

The narrow application of the Guidelines is especially appropriate where competitive forces are sufficient to serve Ontario. Ontario has pursued incremental deregulation of the natural gas market for over 30 years.[15] During this reorientation towards the market, the legislature of Ontario specifically amended the *Ontario Energy Board Act*[16] to enable the Board "to refrain from regulation" where competition, including in the transportation and supply markets, "is sufficient to protect the public interest."[17]

B. The Enbridge and Union Applications Fail to Meet the Guidelines' Threshold

The Guidelines' threshold of "new" applies to both the infrastructure and the source of supply.

The source of supply for the NEXUS path is not new. Neither one of the Marcellus nor Utica formations is a new source of supply. In 2010, the Board found that the Marcellus formation is "not so new that it is not already being produced and transported"[18] and that gas from the Marcellus formation "has been integrated into the market."[19] It is common ground that the Marcellus formation has been significantly developed since 2010, has developed much faster than expected, and that without pre-approval of costs, volumes entering Ontario from the Appalachian Basin are significant and on the rise.[20] The Marcellus and Utica formations are strata within one basin, the Appalachian[21], and these two formations significantly overlap.[22] The applications are for pre-approval of costs of a path to this established basin. Expansion of

---

[13] EB-2010-0300/300, pages 9-10.
[14] EB-2015-0166/EB-2015-0175, Enbridge Argument-in-Chief, paragraphs 64-65.
[15] Ontario Energy Board, *Natural Gas Regulation in Ontario*: A Renewed Policy Framework, Report on the Ontario Energy Board, Natural Gas Forum, March 30, 2005 [NGF 2005 Report] at page 8.
[16] 1998, SO 1998, c 15, Sch B [*OEBA*].
[17] NGF 2005 Report at page 9; Section 29(1) of the *OEBA*.
[18] EB-2010-0300/300, page 9.
[19] *Ibid*.
[20] See, generally, Navigant Consulting, Inc., 2014 Natural Gas Market Review Final Report, Prepared for the Ontario Energy Board, December 22, 2014, EB-2014-0289 [2014 Market Review], page 1; Public Record, and referenced in the Enbridge Argument-in-Chief in this proceeding at footnote 22.
[21] US Geological Survey (Christopher S. Swezey), *Regional Stratigraphy and Petroleum Systems of the Appalachian Basin, North America*, 2002. Public record. On-line: < http://pubs.usgs.gov/imap/i-2768/i2768.pdf >.
[22] EB-2015-0166, Exhibit A, page 8 of 54, Figure 2-1.

production from the Utica formation is more recent than that of the Marcellus, but the two share drilling, production, and transmission infrastructure, all of which is well-developed. The Appalachian Basin, referred to in this argument as the Marcellus/Utica, is not a new source of supply.

The NEXUS path is not a fundamentally new path. Existing facilities make up a significant part of the proposed NEXUS path, and the NEXUS toll would pay for the use of these existing facilities. In addition, while not part of the applicants' paths, the toll may provide indirect support to other existing infrastructure owned by the applicants' parent corporations, as NEXUS is expected to result in greater tolled volumes flowing on these lines. The NEXUS project has contracted capacity on the Texas Eastern Pipeline and the Chicago-bound leg of the Vector Pipeline.[23] Vector is 60 percent owned by Enbridge's parent company.[24] Texas Eastern is wholly owned by Union's parent company.[25] Both are existing assets. Granting pre-approval would directly[26] and indirectly underpin existing infrastructure.

III. Even if the Threshold Was Met, the Applications Should Still Be Denied

A. Introduction

In the event the Board considered the Guidelines' threshold to be met, the applications should still be denied on the basis that for the Ontario public it is less prudent to pre-approve the costs for a 15-year term than to reserve the right of more frequent prudency review in a rapidly developing supply-driven market.

The Guidelines specify six parts an applicant for cost pre-approval must complete. TransCanada's argument focuses on Parts II, III, and IV, being: needs, costs, and benefits; contract diversity; and, risk assessment; as these align with the questions set out by the Board for this proceeding:

> 1. Has the applicant adequately demonstrated the need, costs and benefits of the proposed project?
>
> 2. Has the applicant adequately demonstrated contract diversity in regards to how the contract fits into the applicant's overall transportation and natural gas supply portfolio in terms of contract length, volume and services?

[23] EB-2015-0166, Exhibit A, page 15 of 54, Figure 3-1.
[24] EB-2015-0166/EB-2015-0175 Oral Hearing Transcript Vol. 2, November 16, 2015, pages 162-163.
[25] EB-2015-0166/EB-2015-0175 Oral Hearing Transcript Vol. 2, November 16, 2015, pages 90-91.
[26] For example, Enbridge's response to Undertaking J2.5 shows that 165 km of the NEXUS path will utilize a combination of the existing DTE and Vector systems.

3. Has the applicant provided an adequate assessment of all risks associated with the proposed project as well as provided plans on how these risks are to be minimized and allocated between ratepayers, parties to the contract and/or the applicant's shareholders?

These concepts are inter-related. TransCanada addresses question one independently, and questions two and three together. Based on the argument submitted below, TransCanada submits each of these questions should be answered in the negative. Preapproval may be desirable for Union, Enbridge, and their transmission affiliates, but the benefits to Ontarians are intangible while the cost consequences, as will be detailed below, are quite real.

B. Needs, Costs and Benefits and Risk Assessment

1. Landed Cost Analysis Shows the Niagara Option to be Superior to NEXUS

Based on the Union and Enbridge own landed cost analyses (LCAs), pre-approval of NEXUS represents, at a minimum, a $649 million cost[27] to Ontario consumers relative to the Niagara alternative.[28] These incremental costs could grow to upwards of $1.185 billion considering NEXUS project costs, foreign exchange rates, and transportation costs to Enbridge's delivery areas.[29] The analysis below, summarized from the record, will show how these impacts were derived.

Union's LCAs

Table 1 is compiled from LCAs placed on the record by Union in this proceeding. Under Union's analyses, transportation under an on-budget NEXUS project (column 2) is $0.19 to $0.85 more expensive per GJ than transportation of Marcellus/Utica gas to Niagara, and up to $0.96 per GJ more expensive if NEXUS experiences a 15 percent cost over-run.

The LCA on which Union based its decision to sign the PA for NEXUS[30] shows an on-budget NEXUS to be $0.28/GJ more expensive than transportation of gas to Niagara (Table 1: row 1, column 4), and $0.39/GJ more expensive than Niagara if NEXUS experiences a 15 percent cost overrun (Table 1: row 1, column 5).

[27] Unless otherwise specified, all tolls and cost information is expressed in Canadian dollars.
[28] $243 million + $406 million as per Table 3.
[29] $442 million + $743 million as per Tables 7 and 8.
[30] As per EB-2015-0166/EB-2015-0175, Exhibit K1.1, "NEXUS Pipeline Overview" Presentation, slide 6. Union executed their initial NEXUS PA in August, 2014, and their restated NEXUS PA in May, 2015. Union filed two landed cost analyses in their Application, dated January, 2014, and January, 2015.

Table 1: Union Landed Cost at Dawn Compilation ($/GJ)

		1	2	3	4	5
		Niagara[31]	**NEXUS**	**NEXUS +15%**	**NEXUS – Niagara**	**NEXUS +15% – Niagara**
1	Union Application (Jan. 2015)[32]	8.10	8.38	8.49	0.28	0.39
2	Updated Price and Forex[33]	6.51	6.70	6.82	0.19	0.31
3	Niagara with same basis as NEXUS[34]	7.53	8.38	8.49	0.85	0.96
4	Application with 1.31 exch. rate[35]	9.01	9.36	9.48	0.35	0.47
5	Application with 1.40 exch. rate[36]	9.59	9.97	10.10	0.38	0.51

Enbridge's LCAs

Table 2 is compiled from LCAs placed on the record by Enbridge in this proceeding, including analyses for delivery to the Enbridge CDA and EDA.

The Enbridge LCAs were available when Enbridge signed its NEXUS PA.[37] They show that at the time of analysis, NEXUS was even more expensive for Enbridge customers than for Union customers, relative to available alternatives. The LCA included in the application, as corrected,[38] shows an on-budget NEXUS to be $0.64/GJ more expensive than the Niagara option (Table 2: row 1, column 4), and $0.75/GJ more expensive in the 15 percent cost overrun case (Table 2: row 1, column 5).

Table 2: Enbridge Landed Cost at Dawn Compilation ($/GJ)

		1	2	3	4	5
		Niagara[39]	**NEXUS**	**NEXUS +15%**	**NEXUS – Niagara**	**NEXUS +15% – Niagara**
1	Enbridge Application (May 2015)[40]	4.52[41]	5.16	5.27	0.64	0.75
2	Updated Price and Forex[42]	5.00	5.55	5.67	0.55	0.67
3	Application with 1.40 exch. rate[43]	5.03	5.78	5.91	0.75	0.88
4	Application & Enbridge CDA[44]	4.53	5.48	5.60	0.95	1.07
5	Application & Enbridge EDA[45]	4.90	5.82	5.94	0.92	1.04

[31] At Kirkwall.
[32] EB-2015-0166, Exhibit A, page 40, Figure 5.5.
[33] EB-2015-0166/EB-2015-0175, Exhibit B.T1.Union.TCPL.2.
[34] EB-2015-0166/EB-2015-0175, Exhibit B.T1.Union.VECC.12.
[35] EB-2015-0166/EB-2015-0175, Exhibit B.T1.Union.LPMA.7.
[36] EB-2015-0166/EB-2015-0175, Exhibit B.T3.Union.Staff.18.
[37] As per EB-2015-0166/EB-2015-0175, Exhibit K1.1, "NEXUS Pipeline Overview" Presentation, slide 6. Enbridge executed its initial NEXUS PA in June, 2014, their restated NEXUS PA in December, 2014, and their amended PA in May, 2015. Enbridge filed two landed cost analyses in their Application, dated November, 2014, and May, 2015.
[38] In response to a TransCanada IR (Exhibit.I.T4.EGDI.TransCanada.9), Enbridge recognized that the spike in the Niagara commodity price shown in Enbridge's May 2015 landed cost analysis was incorrect, and subsequently filed a corrected analysis.
[39] At Kirkwall.
[40] EB-2015-0175, Exhibit A, Tab 3, Schedule 1, page 24, Table 2.
[41] This number was corrected by Enbridge – Exhibit I.T4.EGCI.TransCanada.9.
[42] EB-2015-0166/EB-2015-0175, Exhibit I.T1.EGDI.TransCanada.3.
[43] EB-2015-0166/EB-2015-0175, Exhibit I.T3.EGDI.STAFF.16.
[44] EB-2015-0166/EB-2015-0175, Exhibit I.T1.EGDI.STAFF.5.
[45] *Ibid.*

The Union and Enbridge 15-year incremental cost related to pre-approval of NEXUS cost consequences, compared to delivery of Marcellus/Utica gas to Niagara and subsequently Kirkwall, is shown in Table 3.

Table 3: Union and Enbridge 15-Year Incremental Cost of NEXUS Contracts vs. Niagara

	Union (at Dawn) Total Cost[46]	Enbridge (at Dawn) Total Cost[47]	Ontario Consumer Total Cost*
NEXUS Base Case	$243 million	$406 million	$649 million
NEXUS + 15% cost overrun	$338 million	$477 million	$814 million

*Numbers may not sum due to rounding.

Landed Cost Analysis to the Enbridge EDA and CDA

For Enbridge, NEXUS becomes even more expensive than Niagara if the LCA analysis factors in delivery to the Enbridge CDA and EDA.[48] Analyzing costs to the CDA and EDA, as opposed to Dawn, provides the most accurate cost comparison of the NEXUS path to Niagara because gas sourced from NEXUS must be transported from Dawn to reach Enbridge customers. This analysis shows that an on-budget NEXUS is $0.95/GJ more expensive than Niagara to the Enbridge CDA (Table 2, row 4; column 4), and $0.92/GJ more expensive to the Enbridge EDA (Table 2, row 5; column 4). If the NEXUS 15 percent cost overrun case is compared to Niagara, NEXUS is $1.07/GJ more expensive than the Niagara option to the Enbridge CDA (Table 2, row 4; column 5), and $1.04/GJ more costly to the Enbridge EDA (Table 2, row 5; column 5).

While the ratio of volumes delivered to the CDA and EDA is not known, the range of cost increase can be bookended by running two cases: one which assumes 100 percent of volumes go to the CDA; and the other assuming 100 percent go to the EDA. Each of these hypotheticals is unlikely, but the cost increase will necessarily fall between them. At a minimum, and for Enbridge alone, an on-budget NEXUS is $604 million more expensive than Niagara, and in the case of a 15 percent cost over-run, a minimum of $661 million more expensive. These costs could further increase if the foreign exchange rate exceeds the rate assumed in Enbridge's analysis (1.248 $CDN/US).

Table 4: 15-Year Incremental Cost of NEXUS Contract vs. Niagara to Enbridge at CDA and EDA

	Enbridge Total Cost (at 100% volume allocation)	Compared to Enbridge Total Cost (at Dawn) in Table 3
NEXUS Base @ Enbridge CDA	$604 million	+ $198 million
NEXUS + 15% @ Enbridge CDA	$680 million	+ $203 million
NEXUS Base @ Enbridge EDA	$585 million	+ $179 million
NEXUS + 15% @ Enbridge EDA	$661 million	+ $185 million

[46] The incremental cost of the NEXUS option over the 15-year Union contract term can be calculated by the following formula: 15-Year Cost = (Landed Cost NEXUS – Niagara) X 158,258 GJ/day X 365 Days X 15 years.
[47] The incremental cost of the NEXUS option over the 15-year Enbridge contract term can be calculated by the following formula: 15-Year Cost = (Landed Cost NEXUS – Niagara) X 116,056 GJ/day X 365 Days X 15 years.
[48] On this point, see Enbridge's response to Exhibit I.T1.EGDI.STAFF.5.

Foreign Exchange Risk

The proposed NEXUS transportation contract exposes Ontario consumers to greater foreign exchange risk than the Niagara option, as it involves 15years of firm tolls to underpin a significant US dollar denominated capital project.

For Union, if the USD appreciates to CDN $1.40, an on-budget NEXUS exposes Union customers to CDN $87 million of foreign exchange risk, and to CDN $104 million in the case of NEXUS going 15 percent over budget.

Table 5: Union NEXUS Contract Foreign Exchange Risk vs. Niagara

Landed Cost Analysis	Niagara	NEXUS	NEXUS +15%
(A) Union Application (Jan. 2015) FOREX = 1.1762[49]	8.10	8.38	8.49
(B) Union IRR T3.Union.Staff.18 FOREX = 1.4[50]	9.59	9.97	10.10
Differential (B-A)	**(C) 1.49**	**(D) 1.59**	**(E) 1.61**
FOREX Cost Increase Attributable to NEXUS (D-C, E-C) ($/GJ)		0.10	0.12
15-Year Cost Impact Due to NEXUS FOREX Exposure (Increase * 158,258 GJ * 365 * 15)		**$86,646,255**	**$103,975,506**

For Enbridge, if the USD appreciates to CDN $1.40, an on-budget NEXUS exposes Enbridge customers to CDN $70 million of foreign exchange risk, and to CDN $83 million in the case of NEXUS going 15 percent over budget.

Table 6: Enbridge NEXUS Contract Foreign Exchange Risk vs. Niagara

Landed Cost Analysis	Niagara	NEXUS	NEXUS +15%
(A) Enbridge Application (May 2015) FOREX = 1.248[51]	4.52	5.16	5.27
(B) Enbridge IRR T3.EGDI.Staff.16 FOREX = 1.4[52]	5.03	5.78	5.91
Differential (B-A)	**(C) 0.51**	**(D) 0.62**	**(E) 0.64**
FOREX Cost Increase Attributable to NEXUS (D-C, E-C) ($/GJ)		0.11	0.13
15-Year Cost Impact Due to NEXUS FOREX Exposure (Increase * 116,056 GJ * 365 * 15)		**$69,894,726**	**$82,602,858**

[49] EB-2015-0166, Exhibit A, page 40, Figure 5.5.
[50] EB-2015-0166/EB-2015-0175, Exhibit B.T3.Union.Staff.18.
[51] EB-2015-0175, Exhibit A, Tab 3, Schedule 1, page 24, Table 2.
[52] EB-2015-0166/EB-2015-0175, Exhibit B.T3.Union.Staff.18.

In aggregate for the Enbridge and Union contracts, NEXUS exposes Ontario consumers to $157 million to $187 million of foreign exchange risk, just in relation to exchange rate variances from approximately 1.17 to 1.4. Even greater exposure could materialize in the event of higher exchange rates.

To conclude this landed cost analysis section, Table 7 (Union) and Table 8 (Enbridge) compiles all of the additional cost exposure to Ontario consumers that may result if Union and Enbridge contract on the NEXUS project rather than at Niagara.

Table 7: Compilation of Union Customer Cost Exposure from NEXUS Contract vs. Niagara

	NEXUS Base Case		**NEXUS + 15% Case**	
	$/GJ Impact	**15-Year Total Cost**	**$/GJ Impact**	**15-Year Total Cost**
NEXUS at Dawn vs. Niagara at Kirkwall	0.28	$243 million	0.28	$243 million
Capital Cost Overrun Impact	N/A	N/A	0.11	$95 million
Foreign Exchange = 1.4	0.10	$87 million	0.12	$104 million
Total Potential Landed Cost Difference vs. Niagara	**0.38**	**$330 million**	**0.51**	**$442 million**

Table 8: Compilation of Enbridge Customer Cost Exposure from NEXUS Contract vs. Niagara

	NEXUS Base Case		**NEXUS + 15% Case**	
	$/GJ Impact	**15-Year Total Cost**	**$/GJ Impact**	**15-Year Total Cost**
NEXUS at Dawn vs. Niagara at Kirkwall	0.64	$406 million	0.64	$406 million
Capital Cost Overrun Impact	N/A	N/A	0.11	$70 million
Foreign Exchange = 1.4	0.11	$70 million	0.13	$83 million
Minimum Cost Impact for Transport to Enbridge Delivery Areas[53]	0.28	$178 million	0.29	$184 million
Total Potential Landed Cost Difference vs. Niagara	**1.03**	**$654 million**	**1.17**	**$743 million**

Ontario consumers are expected to pay additional costs between $827 million (Union + Enbridge NEXUS base case + Minimum Cost of Transport to Enbridge Delivery Area) and $1.185 billion (Union + Enbridge NEXUS + 15% case + Foreign Exchange [1.4] + Minimum Cost of Transport to Enbridge Delivery Area) or higher, if Enbridge and Union contract on the NEXUS project. Note that the aforementioned cost exposure does not include foreign exchange risk beyond a 1.4 exchange rate. The exchange rate could vary significantly over the term of the contract — even in excess of the rate used in Tables 7 and 8 above.

[53] Assumed 100% of volumes are transported to the Enbridge EDA. For $/GJ impacts, see Table 2, column 4; (0.92-0.64) = 0.28; column 5 (1.04-0.75) = 0.29. 15-Year Cost = Differential X 116,056 GJ/day X 365 Days X 15-Years.

When transportation to the Enbridge CDA and EDA is considered as in Table 4, Enbridge customers alone will pay between $584.6 million and $679.9 million more for NEXUS than Niagara, depending on the allocation of volumes between the delivery areas and the amount of cost over-run, if any. These customers are also further exposed to foreign exchange risk.

TransCanada submits that given the cost-exposure to rate-payers revealed by the LCAs on the record, and the lack of tangible benefits to those rate-payers, the applications do not meet the prudence standard inherent in the Guidelines.

2. Gas Imports at Niagara or Waddington reduce the need for and costs associated with Dawn/Parkway Facilities Expansions on the Union System

An additional benefit provided by sourcing Marcellus/Utica gas supply at Niagara rather than through NEXUS is the avoided need for, and costs associated with, adding facilities to the Dawn/Parkway System. This would not only avoid environmental and landowner impacts associated with unnecessary pipeline additions on the Union System, but would also reduce the risk exposure of Union's customers and Ontario consumers to costs associated with future underutilized capacity on that system.

Facilities expansions on the Dawn/Parkway System have become increasingly expensive since 2008, as demonstrated by Union's response to TCPL.2 in the EB-2015-0200 proceeding, which is reproduced below:

Table 9: Dawn/Parkway System Transmission Facilities Expansion Costs[54]

Expansion Project	Design Day Capacity Added (GJ/d)	Facility Capital Costs: Original Estimates ($millions)	Capital Cost per Unit Capacity Added ($/GJ/d)
2008: Bright A1 and A2 Compressor Upgrade	342,454	57.4	168[55]
2015: Parkway D and Brantford to Kirkwall	433,000	204	471
2016: Lobo C and Hamilton to Milton	442,770	415.7	939
2017: Lobo C, Bright C and Dawn H	456,647	623	1364

Union is already projecting a 42 percent increase in M12 rates by 2018 from current levels.[56] As future expansions on this path will presumably require additional looping or expensive compression, there is no reason to believe that such expansions of the Union System would not also result in rate increases.

Therefore, the 15-year commitments proposed by Union and Enbridge for significant new volumes on NEXUS will result in an increased need for Dawn/Parkway capacity, which is

[54] EB-2015-0200, Exhibit B.TCPL.2 Attachment 1.
[55] Compared to the original estimate, Union's actual facility expansion costs were $73.2m, resulting in a capital cost per unit of capacity added of $218/GJ/d.
[56] EB-2015-0200, Exhibit A, Tab 3, page 7 of 8, lines 6-13.

expected to impose further costs to Ontario in the future. Utilizing alternative paths, such as sourcing gas at, or through, Niagara or Waddington, would avoid or mitigate these negative impacts.

3. Marcellus/Utica Projects Are Supply Push: Development Does Not Require Cost-Shifting

Pre-approval of the applicants' NEXUS costs is not necessary to obtain supply from the Marcellus/Utica. The 2014 report in EB-2014-0289 notes that the Marcellus formation is not a new source of supply, and while the Utica formation in the same basin was less developed, development in the Appalachian basin, which encompasses both formations, occurred much faster than expected, with producers actively pursuing multiple greenfield pipeline projects and path reversals to push this supply to market.[57]

At various points in testimony, Union and Enbridge assert there is a significant risk that the NEXUS project will not be built without pre-approval of the cost consequences of their 15-year contracts. The applicants suggest there is a risk of insufficient Marcellus/Utica supply making it to the Ontario market without regulatory intervention. This assertion is contradicted by the rapid development of the Marcellus/Utica, and the ramp-up of delivery to Ontario of volumes from this basin, all without cost pre-approval.

The applicants also confirm that significant volume from the Marcellus/Utica already reaches Ontario via Niagara and Dawn, and the prospect for an increase in receipts in the future from pipeline projects, such as Rover, from the Marcellus/Utica to the Ontario market.

For example, in testimony Union agreed that both the Niagara and Rover projects can be described as supply push, that is they are projects that are producer driven. Referring to Marcellus/Utica and Niagara open seasons, Union stated that:

> They have happened and have developed without the need for Union, other than its initial 20,000, to participate. They had been for the most part -- not all, but for the most part -- producer-driven, … That capacity over the years has and will develop to be about 1.4 PJs. [58]

Regarding Rover, Union stated it will provide 0.95 PJ/d (0.9 Dth/d) of incremental supply to Dawn underpinned by producers.[59]

NEXUS itself may proceed without cost-pre-approval, as it is also producer-driven; Union and Enbridge are not the only subscribers. Union has stated that 540 TJ/d of the NEXUS volumes into Dawn are underpinned primarily by producers.[60] Of the Marcellus/Utica projects into the Ontario market, approximately 2.67 PJ/d of capacity has been underpinned by producers or

[57] See generally, 2014 Market Review, *supra.*
[58] EB-2015-0166/EB-2015-0175 Technical Conference Transcript Vol. 1, September 8, 2015, page 70.
[59] EB-2015-0166/EB-2015-0175 Oral Hearing Transcript Vol. 1, November 13, 2015, page 35.
[60] EB-2015-0166/EB-2015-0175 Technical Conference, September 8, 2015, page 88-89

marketers.[61] This is close to the daily average demand for gas in Ontario and up to half of typical peak day demand.[62]

In its final argument, Enbridge notes that only a small percentage of Marcellus/Utica supply currently makes it to the Ontario market,[63] referencing Figure 41 in the Board's *2014 Natural Gas Market Review Final Report.* This is true, but only due to the large size of Marcellus/Utica supply (approximately 22 Bcf/d) relative to the size of Ontario demand (approximate Ontario base demand is 3 Bcf/d, and typical peak demand is approximately 5.4 Bcf/d).[64] In testimony, Enbridge also noted that the Marcellus/Utica supply is anticipated to be the largest source of supply on the continent, and that Ontario, a market of almost 14 million people, is a nearby market.[65] It stands to reason that where producers are seeking access to markets, abundant supply will find a way to continue to enter a proximate and significant market without the need for regulatory intervention.

4. The NEXUS Project Would Have Minimal Impact on Dawn liquidity

Pre-approval of the NEXUS transportation contract may not improve liquidity at Dawn for two reasons. First, the contract would not bring significant incremental supply to Dawn. Second, Enbridge has stated that incremental supply that may be brought to Dawn is likely to be used to meet their base-load requirements;[66] if so, it would not add to the volumes available to be marketed at Dawn.

Union explained at the technical conference that NEXUS, in combination with Rover, would add 0.3 PJ/d of incremental capacity at Dawn, and that both projects rely on existing capacity on the Vector Pipeline and St. Clair to reach Dawn.[67]

Enbridge stated at the technical conference that supply from NEXUS would be used for base-load gas supply.[68] To the extent Enbridge and Union use incremental supply from the NEXUS for base load, NEXUS will not contribute to liquidity at Dawn.

If there is a marginal increase in Dawn liquidity, it will come at a minimum cost, compared to alternatives such as Niagara, of tens of millions of dollars per year to Ontario system supply customers for 15 years.

---

[61] 1.18 PJ/d at Niagara, 0.95 PJ/d from Rover, and 0.54 PJ/d from NEXUS. 1.18 + 0.95 + 0.54 = 2.67 PJ/d
[62] 2014 Market Review, Figures 17, 32, 33. Note: 1 PJ is approximately equal to 1 Bcf/d.
[63] EB-2015-0166/EB-2015-0175, Enbridge Argument-in-Chief, paragraph 24.
[64] 2014 Market Review, Figures 17, 32, 33. Note: 1 PJ is approximately equal to 1 Bcf/d.
[65] EB-2015-0166/EB-2015-0175 Oral Hearing Transcript Vol. 2, November 16, 2015, page 115; testimony of Mr. Leblanc: "This [the Utica formation in the Appalachian basin] is going to be -- or already is, I think, one of the largest basins in North America, one of the most important basins in North America. … This thing is across the lake. It's the shortest path. That transportation over time should be the cheapest transportation to move gas." TransCanada notes that if one locks in transportation costs on a path for 15 years, one loses the opportunity to take advantage of potentially more economic alternatives in the future.
[66] EB-2015-0166/EB-2015-0175 Oral Hearing, November 17, 2015, page 63.
[67] EB-2015-0166/EB-2015-0175 Technical Conference Transcript Vol. 1, September 8, 2015, pages 86-87.
[68] EB-2015-0166/EB-2015-0175 Oral Hearing, November 17, 2015, page 63.

The Sussex evidence sponsored by Union and Enbridge provides a measure of the minimal impact NEXUS would have on Dawn liquidity. In the response to an IR from APPrO,[69] Sussex discussed factors to measure liquidity at a pricing point. Sussex relied on quantitative metrics of liquidity from Platts. Platts rates the liquidity of market hubs as one of Tier 1, 2, or 3. Tier 1 is the highest liquidity rating. It requires a hub to see aggregate trade of over 100 MMbtu/d of volume per day, with at least 10 trades per day. By this measure, Dawn is already a Tier 1 liquid hub, and has been since at least 2009, as noted in the following table.

Table 10: Measures of Historical Dawn Liquidity[70]

Split-Year (Nov-Oct)	Dawn		
	Avg. Daily Volume (000 MMBtu)	Avg. No. of Deals Per Day	Avg. Tier
2009/2010	594	110	1
2010/2011	624	123	1
2011/2012	509	97	1
2012/2013	662	105	1
2013/2014	395	92	1
2014/2015	420	113	1

This begs the question, what additional liquidity benefit does 0.3 PJ/d of contracted capacity realistically provide, even if marketed, when compared to the more than 7 PJ/d of physical capacity from Dawn on the Dawn/Parkway System?[71] TransCanada submits that such impact is unlikely to be significant and cannot justify the costs to Ontario rate-payers associated with the pre-approval of the cost consequences of NEXUS contracts.

5. The Claim of $700 Million in Savings from NEXUS Appears to be Inaccurate

Union stated that replacement of its Alliance and TransCanada long haul contracts with NEXUS capacity would result in more than CDN $700 million in savings over 15 years.[72]

However, each of Union and Enbridge noted that their decisions to de-contract on Alliance or TransCanada, or both, either pre-date, or are independent of, their decision to participate in NEXUS. Enbridge stated that the expiry of its Alliance contracts was not related to the NEXUS decision.[73] Union stated that it had decided to de-contract on Alliance/Vector before it decided to sign a NEXUS PA.[74] The Union Mainline and Alliance contracts are set to expire almost two years in advance of the NEXUS in-service date.[75] These savings appear to be unrelated to NEXUS. Union and Enbridge customers will begin to realize the savings prior to the NEXUS in-service date and independent of any contracting by Union or Enbridge on NEXUS.

[69] EB-2015-0166/EB-2015-0175 Exhibit B.T1.Union.APPrO.5.
[70] *Ibid.*
[71] EB-2015-0200 Exhibit A, Tab 8, page 7 of 12. Includes the proposed 2017 Dawn Parkway System Expansion.
[72] EB-2015-0166/EB-2015-0175 Exhibit B.T1.Union.Energy Probe.6.
[73] EB-2015-0166/EB-2015-0175 Technical Conference Transcript Vol. 2, September 9, 2015, page 145.
[74] EB-2015-0166/EB-2015-0175 Exhibit B.T2.Union.Staff.17.
[75] EB-2015-0166/EB-2015-0175 Exhibit B.T2.Union.FRPO.16, Exhibit B.T2.Union.Staff.12 Attachment 1.

For Union customers at least, NEXUS appears likely to result in additional costs. The LCA above indicates that if Union proceeds with NEXUS, this will cost Ontario consumers at least $243 million more than Niagara, without an offsetting monetary, or other tangible benefit to consumers.[76]

C. Contract Diversity

1. Niagara is a Viable Point to Purchase Gas and Niagara Gas is also Available at Dawn

Greater contract diversity can still be obtained through Niagara, and at lower cost than through NEXUS.

Union and Enbridge have each stated that Niagara is insufficiently liquid and additional gas is difficult to purchase there. The facts do not support this assertion. Import capacity at Niagara was 0.4 PJ/d in 2012 and is on track to increase to 1.4 PJ/d in 2015/2016.[77] Enbridge was able to procure 200,000 GJ/d of supply at Niagara prior to the volumes at Niagara reaching the projected 1.4 PJ/d level. With growth in volumes, greater liquidity and opportunity to purchase gas supply at Niagara is expected.

Gas entering Canada through Niagara is also available for purchase at the liquid hub of Dawn. Enbridge stated in the technical conference that "there is a number of suppliers, certainly, coming to the border and beyond and coming to Dawn."[78] In the August 18, 2014 internal memo that led Enbridge to initially reject participation in NEXUS, Enbridge noted:

> As a result the supply surplus at Niagara/Chippawa could be lower than presented. However, it is possible that some parties have contracted for transportation capacity to Dawn. At a recent Union Gas customer meeting it was indicated that approximately 560 TJ/d of new contracts from Kirkwall to Dawn could begin flowing in 2015-2016.[79]

Marcellus/Utica gas arriving to Ontario via Niagara can still be purchased at Dawn. This demonstrates that even if Union and Enbridge preferred to acquire gas at Dawn instead of Niagara, they could still access significant Marcellus/Utica supply without pre-approval of a 15-year contract, and without shifting cost and risk to rate-payers.

There has been, and continues to be, opportunity to contract for new volumes at Niagara. While the applicants have asserted that Niagara is fully contracted, in the normal course a delivery point is fully contracted, or nearly so, after each open season. Enbridge confirmed in testimony that it was aware of, but did not participate in, an open-season for volume at Niagara after it first

[76] See Table 3.
[77] EB-2015-0166/EB-2015-0175 Exhibit B.T2.Union.Staff.17.
[78] EB-2015-0166/EB-2015-0175 Technical Conference Transcript Vol. 2, September 9, 2015, page 82.
[79] EB-2015-0166/EB-2015-0175 Exhibit I.T1.EGDI.FRPO.4, Attachment 2, page 5 of 8.

considered but before it signed a NEXUS PA. [80] In addition, Enbridge was aware of another open season that closed during this proceeding, and an upcoming one for 2018.[81]

2. Before NEXUS, the Applicants had the Opportunity to Contract at Niagara at Lower Cost

In evaluating prudence, the Board has affirmed the analytical principle that "hindsight should not be used in determining prudence," with the qualifier that "consideration of the outcome of the decision may legitimately be used to overcome the presumption of prudence."[82]

Whether or not this principle applies to forecast costs, hindsight is not required here. Before Union signed its NEXUS PA in August of 2014,[83] and Enbridge signed, for the first time in June 2014,[84,85] each was aware of the option to procure gas supply at Niagara via TransCanada Mainline and Tennessee Gas Pipeline (TGP) at a lower landed cost than NEXUS. TransCanada gave a presentation on this matter to Union in February 2013 and to Enbridge in June 2013 titled "Opportunities for Marcellus and Utica Shale on the TransCanada Mainline via Tennessee Gas Pipeline (TGP)."[86] The presentation included:

- A forecast of Northeast Production, showing growth to 20 Bcf/d by 2020;
- A forecast of average daily Marcellus gas flows into TGP, showing an increase from 0 Dth/d in 2009 to greater than 2,000,000 Dth/d by mid-2012;
- An outline of TGP's existing interconnection with 38 Marcellus producers with capacity totaling 8.9 Bcf/d, of which 1 Bcf/d of receipts was added in 2012 alone;
- A discussion of how both TransCanada and TGP were the lowest cost expansion solution through the use of existing infrastructure; and,
- Showed the TransCanada and TGP option had a landed cost advantage over NEXUS to Dawn, and a significant cost advantage to the Union CDA.

3. NEXUS Decreases Ontario Path Diversity Compared to Niagara

NEXUS may lead to an over-dependence on a single path and this may lower path diversity. TransCanada submits that diversity of path benefits Ontarians by mitigating over-reliance on a single physical point or corridor. Union and Enbridge are already highly dependent on the Dawn/Parkway System, and NEXUS would increase their dependency on this path.

In its application, Union stresses the importance of pipeline diversification when referring to the dependence of the Union North Franchise on the Mainline for 100 percent of its supply, stating:

---

[80] EB-2015-0166/EB-2015-0175 Oral Hearing Transcript Vol. 3, November 17, 2015, pages 34-37.
[81] *Ibid.*
[82] Ontario Energy Board, Decisions with Reasons RP-2001-0032 [*RP-2001-0032*], at section 3.12.2.
[83] EB-2015-0166/EB-2015-0175 Oral Hearing Transcript Vol. 2, November 16, 2015, page 78.
[84] EB-2015-0166/EB-2015-0175 Oral Hearing Transcript Vol. 2, November 16, 2015, page 144.
[85] As per timeline in EB-2015-0166/EB-2015-0175 Exhibit K1.1, "NEXUS Pipeline Overview" Presentation, slide 6.
[86] EB-2015-0166/EB-2015-0175 Exhibit B.T4.Union.TCPL.8, Attachment 1,
EB-2015-0166/EB-2015-0175 Oral Hearing Transcript Vol. 3, November 17, 2015, page 34.

> [T]here is currently a lack of pipeline and supply diversity in the 2015 Union North sales service and bundled direct purchase portfolio due to its 100% reliance on WCSB supplies delivered to Ontario via TransCanada long-haul transportation.[87]

In contrast to Union's diversity concerns above, from January 2015 to November 2017, for the Union South Franchise area, Union is projected to increase its dependence on the Dawn/Parkway path from 79 percent to 91 percent; a similar degree of dependence Union raised as a concern in the Northern Franchise area. If Union elected to contract on the Niagara option instead of NEXUS, Dawn/Parkway path dependency would have been reduced to 61 percent for Union South. This is illustrated in Figures 1, 2, and 3.[88]

Figure 1: Union South Portfolio Pre-NEXUS (Jan. 2015)

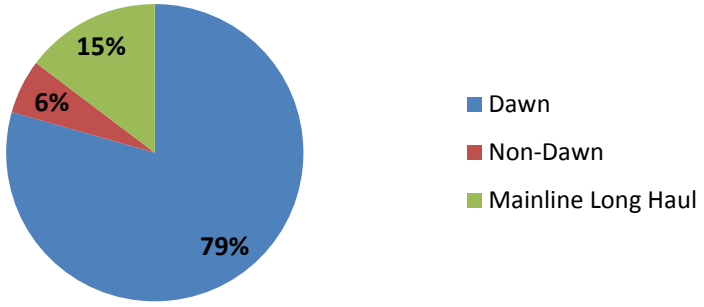
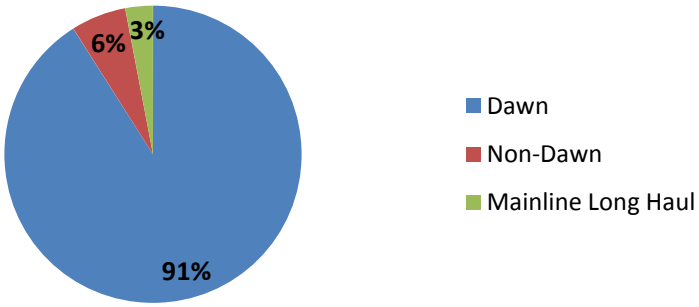


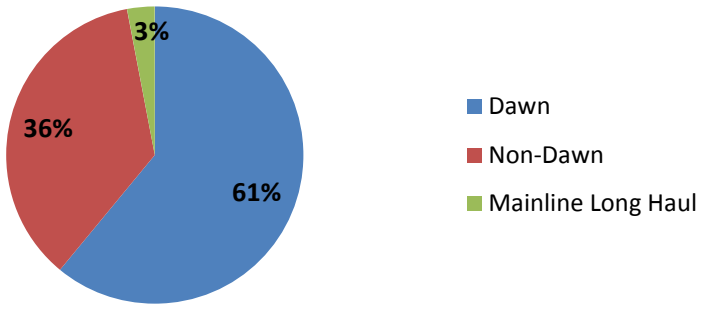
Figure 2: Union South Portfolio Post-NEXUS (Nov. 2017)



[87] EB-2015-0166 Exhibit A Page 20 of 54.

[88] Figures 1 through 3 are adapted from EB-2015-0166, Exhibit A, Page 31 of 54, Figure 5-2. The categories in the source figures were reorganized as follows: Dawn: Dawn-Other, Michigan, Local, Gulf of Mexico (TGC/PEPL), Mid-Continent (PEPL), WCSB-Alliance/Vector, Chicago-Vector, Appalachia-NEXUS. Non-Dawn: Niagara-TCPL. Mainline Long Haul: WCSB-TCPL. In Figure 3, all Appalachia-NEXUS volumes from the source figure were placed into the Niagara-TCPL category.

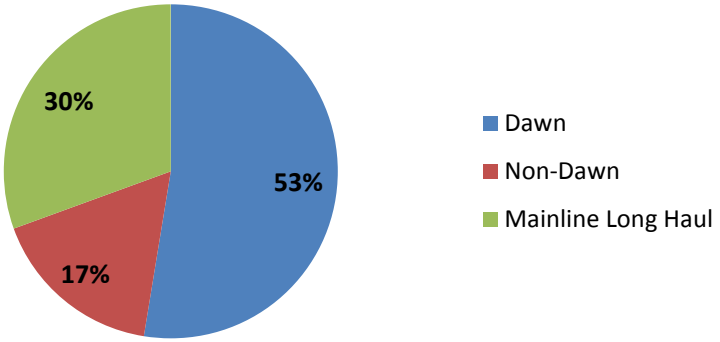
Figure 3: Union South Portfolio (Nov. 2017)
Scenario: 100% Niagara instead of NEXUS



As Union discussed during the oral hearing, the "Dawn-other" category used in Figure 5-2 (November 2017) of Union's evidence includes uncommitted supply that may be acquired via non-Dawn supply sources.[89] For the purposes of the figures above, that supply is assumed to be transported through Dawn.

In the case of Enbridge, Dawn/Parkway path dependency increases from 53 to 61 percent with NEXUS. Had Enbridge elected to contract on the Niagara option, this path dependency would decline to 51 percent, as can be seen in Figures 4 through 6.[90]

Figure 4: Enbridge Portfolio Pre-NEXUS (2017)



[89] EB-2015-0166/EB-2015-0175 Oral Hearing Transcript Vol. 2, November 16, 2015, pages 29-30.
[90] Figures 4 through 6 are adapted from EB-2015-0175, Exhibit A, Tab 3, Schedule 1, Page 32 of 46, Table 4. The categories in the source table were reorganized as follows: Dawn: Chicago, Dawn, Franchise, NEXUS. Non-Dawn: Niagara. Mainline Long Haul: WCSB. In Figure 6, all NEXUS volumes from the source table were placed into the Niagara category.

Figure 5: Enbridge Portfolio Post-NEXUS (2018)

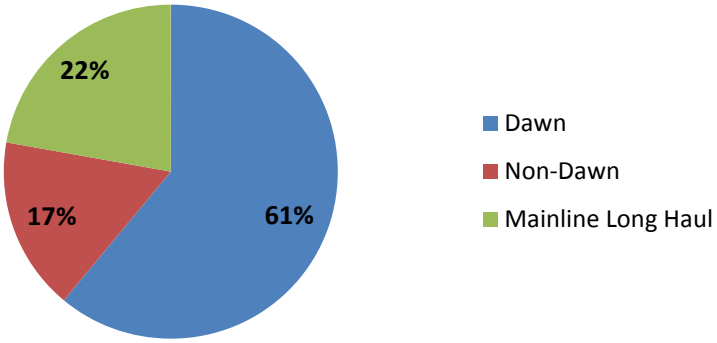
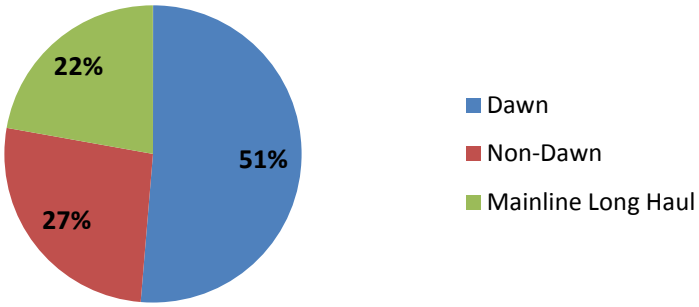


Figure 6: Enbridge Portfolio (2018)
Scenario: 100% Niagara instead of NEXUS



The NEXUS option as proposed would reduce both Union and Enbridge path diversity and consequently increase supply reliability risk.

4. NEXUS Is Not Required for Supply Security and May Decrease Capacity to Hedge the Price of Supply

Pre-approval is not required for security of supply and may decrease Ontario's capacity to hedge regional supply price spikes.

Security of supply is, quite simply, whether there will be enough supply to meet demand. The Ontario market is well-supplied.[91] Enbridge's evidence is that the grant or denial of this application does not raise an issue of security of supply; rather, it is about displacement.[92]

If approved, NEXUS volumes are anticipated to displace Western Canadian Sedimentary Basin (WCSB) volumes from Alberta and British Columbia. While flows from the WCSB to Ontario

[91] See, generally, the 2014 Market Review.
[92] EB-2015-0166/EB-2015-0175 Oral Hearing Transcript Vol. 3, November 17, 2015, pages 38-40.

have shown a declining trend, this is a contracting choice independent of pipeline capacity or available western supply, which is robust. The same shale revolution that has enabled production in the Northeast US is leading to increased production in Alberta and British Columbia, both of which are connected to Ontario by natural gas pipelines. In a 2014 analysis, the Board's consultant projected conventional gas production in Alberta to remain stable, and for total western production to increase from approximately 16 Bcf/d in 2015 to 17 Bcf/d in 2020.[93]

Displacement of WCSB volumes may lead to a progressive decline in Ontario's access to abundant western supply, and consequently decrease basin diversity that also provides supply price diversity. The applicants' expert, Sussex, noted that the market will tend to close arbitrage,[94] that is, as connectivity is increased, the arbitrage between Dawn and Kensington will tend to close. Once the arbitrage is closed, the direction of the uniform price will be driven by supply and demand. Demand in the US Northeast and Ontario may move, and spike, in tandem, not only due to economic similarities between the markets, but in large part due to similarities in weather. In testimony, Enbridge recognized that in the winter of 2013/2014, the cold weather that blanketed Ontario and the US Northeast led to similar price-spikes at Chicago and Dawn, and price volatility for Ontario consumers was mitigated by Ontario's access to western gas.[95]

IV: Conclusion

TransCanada submits that the Board should reject the Union and Enbridge applications for pre-approval of the costs from the NEXUS contracts because to grant the applications would impose a significant cost burden on the public without a corresponding benefit.

The applications do not pass scrutiny under either of the two steps in the Guidelines.
First, the answer to the threshold question of whether the applications represent something new as contemplated by the Guidelines, in context, is "no." The source of supply for the NEXUS path is not new, as the Marcellus/Utica is a not a new basin. The infrastructure contemplated is in part new, but NEXUS also underpins existing facilities.

Second, if the Board were to consider the Guidelines' threshold to be met, the costs contemplated by the applications are not prudent when evaluated under the criteria in the Guidelines, or as set out in the Board's questions for this proceeding.[96]

The Board first asked if the applicants adequately assessed the need, costs, and benefits of the proposed project. TransCanada submits they have not. The LCAs on record strongly indicate NEXUS will result in significant costs to Ontarians relative to available alternatives such as Niagara, and the applicants had this information at the time they signed their NEXUS PAs.

[93] 2014 Market Review, Figure 27: Canadian Dry Gas Production Forecast Breakout.
[94] EB-2015-0166/EB-2015-0175 Oral Hearing Transcript Vol. 3, November 17, 2015, page 70.
[95] EB-2015-0166/EB-2015-0175 Oral Hearing Transcript Vol. 2, November 16, 2015, pages 128-129
[96] EB-2015-0166/EB-2015-0175 Procedural Order No. 1, Schedule A.

Contracting on NEXUS, and the associated cost and risk-shifting to Ontario rate-payers is not necessary for Ontario to access supply from the Marcellus and Utica formations of the Appalachian Basin. The record clearly shows this supply already reaches Ontario through reversals, and volumes are forecast to increase through multiple projects underpinned by producers seeking access to a significant and proximate market for their gas. The market is working without the need for regulatory intervention.

Second, the Board asked whether the contemplated contracts result in a net benefit to diversity. TransCanada submits they do not. NEXUS, relative to the available alternatives, does not provide a significant benefit to either the liquidity at Dawn, or the diversity of gas supply. NEXUS is projected to further increase reliance of Ontario customers on Union's Dawn-to-Parkway System, resulting in reduced contract path diversity.

Lastly, the Board asks if risks have been adequately anticipated and assessed, and appropriately allocated among ratepayers, parties to the contract, and the applicant's shareholders. TransCanada submits they have not. By contracting for 15 years on NEXUS, the applicants seek to assign Ontario customers what the applicants consider to be a commercially unacceptable cost, and create the risk that Ontario rate-payers will not be able to benefit from improved price in a competitive supply and transmission market. These markets are developing faster than anticipated, and as a result it is more prudent to "wait-and-see" than to commit to today's price for 15 years. In line with Ontario's incremental deregulation of the market, the Board is specifically empowered to deny an application where competition is sufficient to protect the public interest. For all of the foregoing reasons, TransCanada respectfully submits this is an appropriate case for the Board to exercise restraint.

All of which is respectfully submitted,

TransCanada PipeLines Limited

Original signed by Matthew Ducharme for

Catharine Davis
Vice President, Law
Natural Gas Pipelines