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January 16, 2015

**VIA RESS, E-MAIL And COURIER**

Ms. Kirsten Walli  
Board Secretary  
Ontario Energy Board  
PO Box 2319  
2300 Yonge Street  
27<sup>th</sup> Floor  
Toronto, Ontario  
M4P 1E4

Dear Ms. Walli:

**Re: Ontario Energy Board File No. EB-2014-0289**  
**2014 Natural Gas Market Review – Consultation and Stakeholder Conference**  
**Comments of Enbridge Gas Distribution Inc.**

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In accordance with the Ontario Energy Board's letter dated December 23, 2014, enclosed please find the comments of Enbridge Gas Distribution Inc. with regards to the above noted proceeding.

Please contact the undersigned if you have any questions.

Yours truly,

(Original Signed)

Bonnie Jean Adams  
Regulatory Coordinator

**ONTARIO ENERGY BOARD  
2014 NATURAL GAS MARKET REVIEW**

**WRITTEN COMMENTS  
OF ENBRIDGE GAS DISTRIBUTION INC.**

**Background**

1. On September 19, 2014, the Ontario Energy Board (the “Board” or “OEB”) issued a notice with respect to its review of recent developments in the North American natural gas market and the potential implications for Ontario’s natural gas sector. The notice provided information on the scope of the 2014 Natural Gas Market Review (“2014 NGMR”), requested stakeholder input on the scope of the review and indicated that two reports, developed by consultants retained by Board staff, would be made available to participants prior to a stakeholder conference. The notice also provided information about the stakeholder conference and indicated that, following the conference, stakeholders would have an opportunity to submit written comments to the Board.
2. To assist participants, the Board issued a second notice on November 17, 2014 that provided details on the submissions received with respect to the scope of the review and information about the format and logistics of the stakeholder conference. Further assistance and guidance was provided by the Board to participants in a notice dated December 1, 2014. This notice included a detailed agenda for the stakeholder conference that set out the topics to be discussed at the conference.
3. The stakeholder conference was held at the Board’s offices on December 3, 2014 and December 4, 2014. On December 23, 2014, the Board issued another notice in which stakeholders were invited to submit comments on a list of issues prepared by Board staff following the conclusion of the stakeholder conference.<sup>1</sup>
4. These are the written comments of Enbridge Gas Distribution Inc. (“Enbridge”) submitted in accordance with the December 23<sup>rd</sup> notice. In these comments, Enbridge will provide its views on the observations and conclusions contained in the two reports prepared for the Board by Navigant Consulting Inc. (“Navigant”), it

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<sup>1</sup> The notice indicated that written comments on matters raised in the consultant’s reports, in the course of the Stakeholder Conference, or on the issues listed in the attachment to the notice, are due January 16, 2015.

will address certain topics raised and discussed during the course of the stakeholder conference and will conclude with comments specific to the issues raised in the December 23<sup>rd</sup> notice.

### **The Navigant Reports**

5. Enbridge has reviewed the reports developed by Navigant, including the 2014 Natural Gas Market Review Final Report that was distributed by the Board along with the December 23<sup>rd</sup> notice. Enbridge generally agrees with the findings of each of the Navigant reports. However, Enbridge does not agree with Navigant's conclusion in the 2014 Natural Gas Market Review Final Report that the Energy East Project "*would not impair the Ontario natural gas market by restricting expected flows from Alberta and Western Canadian natural gas to Ontario*".<sup>2</sup> Enbridge notes that the Navigant report evaluates utilization of the TransCanada Pipeline Limited ("TransCanada") Mainline on an annual basis<sup>3</sup> and not on a peak day basis, although peak day utilization is of critical importance to primary contract holders on the TransCanada Mainline. Enbridge expects to discuss this issue in more detail as part of the stakeholder forum for the OEB Energy East Consultation and Review to be held in January 2015.

### **Balancing Gas Supply Planning Risks and Costs**

6. Coming out of the 2013 / 2014 winter period, several intervenors and numerous customers expressed concern about the costs associated with gas supply. The reason for increased gas supply costs this past winter was extremely cold weather. Given the concern about gas costs resulting from this extremely cold winter, Enbridge has been proactive in examining its gas supply plan and has proposed, for 2015, changes to its gas supply planning assumptions. Enbridge believes that these changes will mitigate some of the risk associated with potential extreme cold weather events. However, additional changes to the gas supply plan could be warranted. For example, Enbridge expects the acquisition of additional storage capacity would help to mitigate the impacts of gas demand and pricing volatility during extremely cold and prolonged winters.

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<sup>2</sup> EB-2014-0289 2014 Natural Gas Market Review Final Report by Navigant, page 39.

<sup>3</sup> EB-2014-0289 2014 Natural Gas Market Review Final Report by Navigant, Figure 43.

7. In light of the circumstances and events that prevailed during and after the 2013 / 2014 winter period, Enbridge will be continuing to evaluate the cost / risk trade-offs contained in its gas supply plan. Enbridge develops its gas supply plan based on the principles of reliability, flexibility, diversity and cost in conjunction with the design criteria approved by the Board. Design criteria are weather conditions assumed in the development of a gas supply plan. These assumed weather conditions are typically developed through a statistical analysis of weather and are adjusted to take into account a level of risk <sup>4</sup>. By taking into account a level of risk, design criteria allow a utility to establish a gas supply plan that, depending on the amount of risk assumed, is robust in a wide range of actual weather conditions.
8. Enbridge's design criteria are based on an assessment of how cold the coldest day of the year will be, and when the coldest day of the year will occur, along with the same parameters for other days, called multi-peak days, during the winter period. Enbridge's design criteria also include an assessment of weather conditions for all other days (*i.e.*, those days other than peak day or multi-peak days) during the winter period and the remainder of the year.
9. Using the design criteria, Enbridge develops a daily demand profile. This daily demand profile is utilized to establish Enbridge's gas supply plan, which determines the assets procured to meet demand on a daily and annual basis. These assets typically include capacity on transmission pipelines, storage capacity and delivered supplies. Enbridge's design criteria assume a level of risk in each of two different areas. One level of risk is assumed for peak day and multi-peak demands and another level of risk is assumed for winter and annual demand. This has implications for the design and execution of Enbridge's gas supply plan and the reasons for this are explained in greater detail later in these written comments.
10. The level of risk assumed in the design criteria has a significant impact on the gas supply plan. A more conservative level of risk will result in a gas supply plan that requires higher upfront budget costs to procure storage and transportation assets and will mitigate the need to procure incremental commodity and transportation assets should actual demand exceed the demand what was budgeted. The

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<sup>4</sup> In the context of a gas supply plan, the level of risk is typically measured by the recurrence interval of the weather (*i.e.* temperature or heating degree day) assumptions contained in the design criteria. The longer the assumed recurrence interval, the less frequent and colder the assumed weather event and the more conservative (less risky) the design criteria. Therefore, the more conservative the design criteria, the more extreme the demand conditions used to develop a gas supply plan.

converse is true when a less conservative approach is taken to the cost/risk trade-offs in the gas supply plan. Table 1 provides a summary of impacts that the level of risk used in the design criteria has on the costs associated with the gas supply plan.

**Table 1: Design Criteria Impact on Gas Supply Plans**

Design Criteria	Demand Variance Above Budget	
	Minimal	High
Risky	Low Budget Cost Neutral Execution Cost	Low Budget Cost High Execution Cost
Conservative	High Budget Cost Neutral Execution Cost	High Budget Cost Low Execution Cost

11. The design criteria used by Enbridge were approved in the 2013 rebasing application, EB-2011-0354. The EB-2011-0354 Decision approved changes to the peak day design criteria used by Enbridge which included a stepwise increase in the peak day and multi-peak Heating Degree Days (“HDD”) underpinning Enbridge’s design criteria. While the EB-2011-0354 Decision resulted in changes to peak day and multi-peak criteria, the design criteria used to establish winter and annual demand remained unchanged.
12. Enbridge believes that these changes to its design criteria were an important step towards a gas supply plan that is designed for extreme demand conditions resulting from cold weather on any particular day during a winter period. However, the winter of 2013/2014 was the coldest winter in 37 years<sup>5</sup>. Prolonged cold weather across North America tested the limits of the transmission and distribution systems across the continent. This was discussed at great length during the stakeholder conference and as Mr. Petak from ICF International indicated, “[t]here’s only so many different ways you can say that it is cold outside”<sup>6</sup>.
13. This past winter resulted in Enbridge applying for recovery of higher than expected gas supply related costs. These costs were not related to managing peak day demands as such demands were managed through assets contained in the gas

<sup>5</sup> Based on ordinal observations for Enbridge’s Central Weather Zone.

<sup>6</sup> EB-2014-0289 2014 Natural Gas Market Review, Transcript of Stakeholder Conference on December 3, 2014, page 67.

supply plan. The costs were related to additional gas that Enbridge was forced to procure due to prolonged cold weather and persistent periods of high demand.

14. During the April 2014 and October 2014 Quarterly Rate Adjustment Mechanism (“QRAM”) processes, comparisons were made between the cost increases to the customers of Enbridge and those experienced by customers of Union Gas Limited (“Union”). Enbridge went to great lengths to explain the differences in the gas supply plans and gas supply planning assumptions utilized by each utility and emphasized that these differences are, in part, due to the level of risk to which each plan is designed. Ultimately, in its EB-2014-0191 Decision in respect of Enbridge’s October 2014 QRAM application, the Board concluded “*that Enbridge purchased gas according to its Board-approved gas supply plan and that its gas supply plan differs from that of Union*”<sup>7</sup>.
15. This conclusion demonstrates how the level of risk incorporated into gas supply plans can have significant implications on their execution costs. While the differences between Enbridge’s and Union’s gas supply plans did not prove to be a significant concern in previous years when actual demand did not vary significantly from budgeted demand (and Enbridge’s customers benefitted from lower upfront budget costs), this past winter highlighted the impact that more conservative gas supply planning assumptions can have on the execution of a gas supply plan. As indicated by Enbridge during the stakeholder conference, its current gas supply planning parameters work well for a winter with few extremely cold days but not for a winter with prolonged cold weather<sup>8</sup>. Enbridge has been, and intends to continue, investigating further changes to its gas supply planning parameters that potentially could mitigate the risk of a winter with prolonged cold weather, as more fully discussed in the sections that follow.

### **Addressing Gas Supply Planning Risk**

16. Storage is a critical asset included in Enbridge’s gas supply plan. Storage is used to manage demand variability that comes from weather fluctuations and seasonal loads. Storage also manages price risk, in that gas is procured during non-winter months when gas is typically cheaper and stored until required during the winter. Ensuring that an appropriate amount of storage is incorporated into the gas supply

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<sup>7</sup> EB-2014-0191 Decision, page 3.

<sup>8</sup> EB-2014-0289 2014 Natural Gas Market Review, Transcript of Stakeholder Conference on December 3, 2014, pages 110 and 111.

plan is critical to the management of execution costs. This is particularly so for a utility, like Enbridge, that has a predominantly temperature sensitive demand profile.

17. Enbridge submits that the Board should consider whether or not storage capacity in Ontario is sufficient to cover the risks associated with the occurrence of another winter similar to this past winter. As a preliminary step, and for illustrative purposes in the 2014 NGMR, Enbridge decided to review its 2015 gas supply plan to determine what changes, if any, would assist in further managing and mitigating gas supply plan execution costs in the event of another winter of persistent and colder than normal weather.
18. Enbridge's 2015 gas supply plan includes a change to align the parameters utilized to set storage targets throughout the winter season more closely with the parameters utilized by Union. Enbridge has traditionally planned storage targets to maintain maximum deliverability until the end of January/beginning of February. Thereafter, storage targets and deliverability are allowed to decline. For 2015, Enbridge has applied to the Board to utilize more conservative planning assumptions with respect to the establishment of storage targets.<sup>9</sup> Enbridge has developed its 2015 gas supply plan to maintain full deliverability from storage until the end of February and to maintain sufficient deliverability throughout March, such that a March peak day can be met as late as March 31<sup>st</sup>.
19. Using its 2015 gas supply plan, Enbridge conducted an evaluation to determine the amount of incremental storage capacity that would be required in different scenarios related to its winter design criteria.
20. Enbridge currently uses a historical average to determine winter demand under design conditions and hence to arrive at storage capacity requirements. This historical average equates to a 1 in 2 recurrence interval or a 50% chance that actual weather will exceed design conditions in any given year. To understand the implications on storage capacity requirements of using more conservative design criteria, Enbridge evaluated a number of recurrence interval scenarios as summarized in Table 2.

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<sup>9</sup> EB-2014-0276, Exhibit D1, Tab 2, Schedule 1, pages 8 to 9.

**Table 2: Incremental Storage Analysis Results**

<b>Incremental Storage Requirements*: Various Design Criteria (Normal Distribution)</b>			
<b>Design Criteria Recurrence Interval</b>	<b>Associated Probability of Being ≥</b>	<b>Central Weather Zone Winter HDD</b>	<b>Incremental Storage Requirement (Bcf)</b>
Current 1 in 2	50%	2,945	-
1 in 5	20%	3,207	9
1 in 10	10%	3,303	14
1 in 15	≈6%	3,364	16
Peak Day Equivalent	5.7%	3,369	16
1 in 20	5%	3,384	21
* Analysis based on 2015 budget			

21. These preliminary results indicate that (using the 2015 gas supply plan as filed) Enbridge would require an incremental 16 billion cubic feet (“Bcf”) of storage if it were to match the risk assumed in its winter design criteria with its peak day design criteria.
22. Enbridge will consider how to move forward with a more thorough analysis of storage requirements and the cost and risk trade-offs associated with more storage capacity. When it has completed a more thorough analysis, Enbridge will consider when and how to report the results of the analysis to the Board and stakeholders.

### **An Alternative Approach to Managing Storage Targets**

23. In prior sections of these written comments, Enbridge has discussed the gas supply planning principles and the design criteria utilized to develop a gas supply plan. Enbridge has also discussed the changes it has made and has proposed to make, as well as the changes it will be investigating, with regard to its gas supply planning process.
24. For the 2014 NGMR, Mr. Quinn, on behalf of the Federation of Rental-housing Providers of Ontario (“FRPO”), provided a submission that outlined an alternative approach to managing storage targets. FRPO’s position, as set out in its submission, apparently stemmed from a perception that Enbridge did not manage storage targets appropriately during the 2013/2014 winter. FRPO attached a model to its submission and indicated that this model could be used to

demonstrate a simple strategy for managing storage targets, and the resulting benefits.

25. Enbridge agrees that storage can be used to mitigate the execution costs of a gas supply plan. Indeed, Enbridge has already taken steps, as evidenced in its 2015 rate application, to change its gas supply planning process to take this into account. Nevertheless, in Enbridge's opinion, FRPO's submission gives rise to several issues that must be addressed.
26. First, as indicated by the Board in its EB-2014-0191 Decision, Enbridge properly managed its gas supply plan over the winter of 2013/2014. The premise of FRPO's submission is that "*although Enbridge had a gas supply plan that set out a storage fill target, the actual withdrawals from storage were greater than expected and additional gas was not brought in to keep storage fill at targeted levels*".<sup>10</sup> Enbridge submits that, if the intent is to address high costs of executing a gas supply plan, the focus needs to be on the balance between, on the one hand, the level of risk incorporated into the gas supply plan and, on the other hand, the resulting budget and execution costs. Enbridge has addressed this, to a degree, in its 2015 gas supply plan currently before the Board and has committed to further examining the requirement for additional storage capacity.
27. Second, the FRPO model is too simplistic. The FRPO letter indicates that "*the utility can and should alter its plan if consumption patterns and/or market developments generate a known improved plan with less risk*"<sup>11</sup> and yet the model provided by FRPO only provides a single approach to managing a gas supply plan and does not address the other considerations that need to be evaluated in order to efficiently manage Enbridge's gas supply plan. The FRPO model simply assumes that purchases must be made at Dawn in the following month any time the storage levels fall below what was established in the gas supply plan, regardless of any other considerations. The FRPO model does not take into consideration diversity of the Enbridge gas supply portfolio or the need to manage transportation contracts in order to mitigate unutilized demand charges ("UDC"). The FRPO model only evaluates a single option for managing gas supply plans through one specific example based on hindsight.

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<sup>10</sup> EB-2014-0289 letter from FRPO to the Board Re: EB-2014-0289 NGMR – Winter of 2013/14 Storage Target Approach dated November 24, 2014, page 1.

<sup>11</sup> EB-2014-0289 letter from FRPO to the Board Re: EB-2014-0289 NGMR – Winter of 2013/14 Storage Target Approach dated November 24, 2014, page 1.

28. Another reason the FRPO model is overly simplistic is that it does not take into consideration the dynamics of a fully functioning marketplace when significant commodity purchases are made at Dawn. Enbridge was already purchasing 450 terajoules (“TJ”) per day<sup>12</sup> at Dawn in December and making significant incremental purchases would have applied strong upward pressure on Dawn commodity costs. This upward pressure on commodity costs would have impacted all market participants at Dawn, in addition to eroding the cost savings put forward in the FRPO model.
29. Third, gas supply plans should not be managed through predetermined scenarios. The FRPO model seems to suggest that a gas supply plan can be managed efficiently through a mechanical evaluation of a predetermined scenario. This apparent assumption led to a series of questions from Mr. Quesnelle to determine if FRPO is suggesting that the Board “*could look at additional features to a plan, which would include “what if” scenarios*”<sup>13</sup>. In response, Mr. Quinn indicated that this would “*not be helpful to the utilities, because with any plan you miss, maybe, potential anomalies that do occur*”<sup>14</sup>. Mr. LeBlanc agreed that gas supply plans should not be managed through algorithms and he reiterated that the best way to address all potential outcomes is through managing the level of risk incorporated into the gas supply plan.

### **The Board’s Role in Facilitating Ontario Gas Market Evolution**

30. During the stakeholder consultation, there was a clear and consistent message that the North American natural gas market has evolved significantly over the last decade and that this evolution is expected to continue for the foreseeable future. Technology advancements in horizontal drilling and hydraulic fracturing have enabled the economic extraction of natural gas from prolific shale formations across North America. Ontario’s proximity to shale formations, such as Marcellus and Utica, has created a significant opportunity for access to abundant and cost-competitive alternatives to traditional supplies from the Western Canadian Sedimentary Basin (“WCSB”). By gaining access to these new supply basins,

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<sup>12</sup> EB-2014-0289 2014 Natural Gas Market Review, Transcript of Stakeholder Conference on December 3, 2014, page 125.

<sup>13</sup> EB-2014-0289 2014 Natural Gas Market Review, Transcript of Stakeholder Conference on December 3, 2014, page 105.

<sup>14</sup> EB-2014-0289 2014 Natural Gas Market Review, Transcript of Stakeholder Conference on December 3, 2014, page 106.

Enbridge can enhance the diversity, flexibility, reliability and landed cost of its gas supply plans.

31. Gaining access to emerging basins will require commitments on behalf of market participants to the development of new infrastructure. On the upstream side, these commitments include pipeline transportation companies investing significant capital into new or existing pipelines. On the downstream side, utilities will have to enter into long term natural gas supply and/or transportation agreements to support the upstream investment that will allow market access to these new supply sources. If these commitments are not made in a timely manner, Ontario risks not being able to gain access to new supply sources, because opportunities may bypass the Ontario market for other jurisdictions able to make the commitment. For these reasons, Enbridge submits that, in its report at the conclusion of the 2014 NGMR, the Board should address the manner in which the Board's Filing Guidelines for Pre-Approval of Long Term Natural Gas Supply and/or Upstream Transportation Contracts ("Guidelines") can be applied or changed so as to take account of the critical need for an effective process for pre-approval of long term supply and transportation agreements.
32. Enbridge has been actively involved in supporting the development of Ontario's natural gas infrastructure. This has required Enbridge to make both capital investments and long-term commitments on behalf of its customers. Some recent examples include the GTA Reinforcement Project, the Mainline Settlement Agreement among Enbridge, Union, Gaz Métro Limited Partnership ("Gaz Métro") and TransCanada<sup>15</sup>, long term upstream capacity commitments with TransCanada and Union, and most recently the execution of a Precedent Agreement as part of the NEXUS Gas Transmission Project. Enbridge has also facilitated the ability of its direct purchase customers to access new supply sources and to adapt to changing North American gas markets through its Dawn Access Consultative<sup>16</sup>.
33. The Guidelines may have been appropriate in a time when the natural gas market was thought to be mature and well developed, but the emergence of economical shale supply basins has given rise to unprecedented changes in the natural gas market across North America. The long term commitments that a utility must take on in order to enable access to new supply sources may well not meet the specific

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<sup>15</sup> RH-001-2014 Mainline 2013-2020 Settlement Agreement Application filed December 20, 2013, Attachment 1: Mainline Settlement Agreement

<sup>16</sup> EB-2014-0323 Dawn Access Application and Settlement Agreement

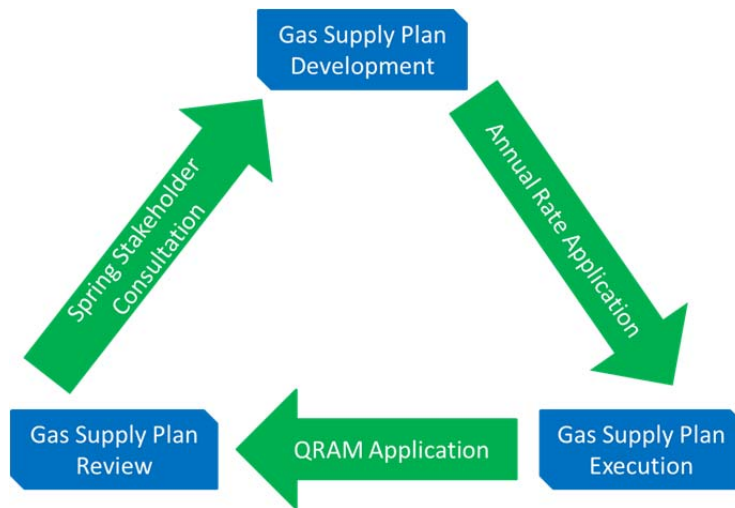
standards set out in the Guidelines. If the Guidelines are not revised or applied in a manner that takes account of current market conditions, it will continue to be challenging for utilities such as Enbridge to support the development of new natural gas infrastructure: the result could be lost opportunities for Ontario consumers as infrastructure developments look towards the path of least resistance.

Enbridge will now address the issues set out in the Proposed Issued List that was attached to the Board's December 23<sup>rd</sup> notice.

**1) How can the Board's assessment of distributor natural gas supply plans be enhanced to ensure a better understanding of the various elements of the plan, the potential risks associated with those elements, and the applicant's proposals for methods of managing those risks?**

34. Enbridge believes that the Board has established appropriate and sufficient regulatory processes for the assessment of distributor's gas supply plans. In particular, current processes allow for the various aspects of gas supply planning to be addressed by stakeholders at appropriate stages of the regulatory process.
35. A condensed lifecycle for a gas supply plan and the associated regulatory process is displayed in Figure 1. The blue boxes in Figure 1 identify the various stages of the gas supply lifecycle that are performed by the distributor. Upon completion of each distributor stage, the distributor files information with the Board in the context of the regulatory processes outlined in the green arrows. Between each of the distributor stages, there is a regulatory process that provides stakeholders with an opportunity to address the preceding stage completed by the distributor.

**Figure 1: Gas Supply Plan Lifecycle**



36. In order for this process to function in an efficient manner, it is very important that specific aspects of the distributor's gas supply plan be assessed in the appropriate regulatory process. For example, annual rate applications provide stakeholders with an opportunity to review whether the distributor's gas supply plan is consistent with the methodology approved by the Board. QRAM applications provide a mechanistic process for the adjustment of rates and provide stakeholders with an opportunity to review current and future costs resulting from the gas supply plan. The spring stakeholder sessions committed to by Enbridge provide stakeholders with an opportunity to review the gas supply plan and, in particular, the various elements of the plan, the potential risks associated with those elements, and development of the next gas supply plan.
37. In short, there are appropriate and sufficient regulatory processes for the assessment of all elements of a gas supply plan, but not all elements of a gas supply plan can or should be assessed in every regulatory process.
- 2) How can the Board better ensure that it's assessment of natural gas applications is informed by up to date information on relevant developments in the broader North American natural gas sector?**
38. The Natural Gas Market Review ("NGMR") process established by the Board has proven to be a valuable forum for stakeholders to better understand developments in the broader North American natural gas sector. Enbridge supports the

continuation of the NGMR process and does not oppose the NGMR being conducted on a more frequent basis if it will assist the Board in the assessment of future natural gas applications. Enbridge notes that (along with Union) it has also committed to providing stakeholders with an annual review of its gas supply plan – this was one of the commitments made by Enbridge in its application for approval of the 2014-2018 Incentive Regulation Plan. Discussions during these annual reviews are another avenue through which the Board can keep up to date on relevant developments.

**3) What is the appropriate role of the Board in relation to the efficient operation of the natural gas market in the public interest, for example, regarding the sufficiency of Ontario access to northeastern U.S. gas supplies?**

39. Enbridge notes that the natural gas market has undergone, and will continue to undergo, significant and rapid change. Enbridge submits that the Board's role in such an environment should evolve to allow timely responses to changes in the natural gas market.

**4) In what ways, if any, do the Board's public interest mandate and/or views in relation to the overarching outcome(s) for Ontario's natural gas market require clarification?**

40. Enbridge does not believe that any clarification of the Board's public interest mandate and/or views on Ontario's natural gas market is required.

**5) What are the merits and disadvantages of replacing the Empress (AECO-C) price with the Dawn Hub price as the reference price for the commodity used for regulatory purposes?**

41. In Enbridge's view, if the Board is going to consider changing the commodity reference price, it should convene a consultative process to address the implications of doing so. There are numerous considerations that must be taken into account before a shift to a new reference price can be made, including but not limited to, compatibility with current services and changes to business processes and systems. Many of these implications are elaborated upon in the discussion that follows.

**Empress Price Index as a Reference Price (Current State)**

42. Enbridge develops its gas supply plan by forecasting the gas supply needs specific to its system gas and direct purchase customers. Gas supply costs are based on a forecast of price indices at the various supply basins/market hubs from which Enbridge procures natural gas, plus the associated transportation cost to deliver that gas to the franchise area. The Purchased Gas Variance Account ("PGVA") reference price captures the forecast upstream acquisition costs, including commodity, transportation and delivered supply costs. This approach provides Enbridge with the means to adjust its forecast gas supply plan costs and its rates on a quarterly basis using the Board-approved QRAM methodology. Board-approved cost allocation and rate design principles are used to allocate the costs among different types of services and customer classes, through the establishment of gas supply, transportation and load balancing charges.
43. Enbridge estimates that approximately 62% of the total supply of gas required by the 2015 gas supply plan will be sourced from Western Canada, with the rest of the supplies being sourced from the Chicago hub (approximately 25%) and from within Ontario (approximately 13% sourced from the Dawn hub, from Niagara, or delivered directly into Enbridge's franchise areas). Enbridge sources gas from a number of market hubs, and it contracts for transportation on a number of different paths, in order to achieve diversity, reliability, flexibility and lower landed costs for its gas supply plan.
44. The rate currently charged to customers by Enbridge for gas supply service (*i.e.*, the gas supply charge) is underpinned by and based on a 21-day forecast of market commodity prices at Empress for the next 12-month period and is adjusted each quarter through the QRAM. The Empress price index is readily available through various sources, it is an appropriate reference point for the costing of gas supplies from Western Canada because of close proximity to the supply basin, and it reflects one of the most geographically distant procurement points used by Enbridge.
45. Proximity to a large producing basin means that the price of gas at Empress represents the price of the commodity itself, while the price of gas at hubs such as Chicago or Dawn will reflect not only the cost of the commodity itself but also the cost of transporting gas to the particular hub. In other words, the price differential, also known as the basis, between Chicago or Dawn as compared to Empress notionally reflects the cost of getting the gas to Chicago or Dawn.

46. Bearing in mind that more than 60% of total supply is sourced from Western Canada, the Empress price is appropriate as a commodity reference price in the context of Enbridge's current gas supply plan and current service offerings.

#### **Dawn Hub Price Index as a Reference Price**

47. It is unclear whether the issue, as it is set out in the Proposed Issues List, refers to a "Dawn hub price index" or an "Ontario landed price". As noted above, Enbridge sources and transports gas supply from a number of producing basins and market hubs. While the proportion of gas supplies sourced at these various points will change over time as compared to the current gas supply plan, Enbridge will continue to ensure diversity in its supply portfolio. If the Dawn hub price refers to the Dawn price index, the resulting gas supply charge would not reflect the actual cost of landing gas supplies for Enbridge's system gas customers in Ontario.

#### **Ontario Landed Price as a Reference Price**

48. An Ontario landed price that is based on Enbridge's supply plan and that reflects diversity of purchases among the various market hubs and associated transportation paths would provide an appropriate reference price. To the extent that Enbridge's gas supply plan evolves towards the procurement of more gas supply from Dawn, then it becomes more reasonable to consider adoption of an Ontario landed reference price.
49. However, the structure of Western T-service is not compatible with an Ontario landed reference price. Should an Ontario landed price be adopted as a reference price for the gas supply charge, Western T-service might need to be discontinued.
50. Also, to facilitate a shift to an Ontario landed reference price, Enbridge would need to change a number of its business processes and systems and it would need to communicate the changes to its customers. Accordingly, stakeholder support for the change and for recovery of the associated costs of implementation would be essential to support a shift to an Ontario landed reference price.
51. While there may be additional factors to be considered, Enbridge has compiled the following lists to summarize some of the merits and disadvantages of an Empress reference price compared to an Ontario landed reference price.

### **Empress Price as Reference Price**

#### **Merits**

- Appropriate for the current gas supply plan, given that more than 60% of total supply is sourced from the WCSB.
- Reflects cost causality/cost incurrence; no cross-subsidy between different service types or between system gas and direct purchase options.
- The concept of the gas supply charge and transportation charge resonates well with customers; customers picture gas supply basins as remote to Ontario and understand the need (and associated cost) to transport gas supplies from western Canada and the U.S. to Enbridge in Ontario.

#### **Disadvantages**

- The Empress price would become less relevant as a reference price for the gas supply charge should the majority of gas supply be sourced in Ontario.

### **Ontario Landed Price as a Reference Price**

#### **Merits**

- Appropriate for a future gas supply plan in circumstances where Enbridge sources a majority of the gas supply for its system gas customers in Ontario.
- Would reflect cost causality/cost incurrence; no cross-subsidy between different service types or between system gas and direct purchase options.

#### **Disadvantages**

- The structure of Western T-service is not compatible with a gas supply charge that reflects the landed cost of gas in Ontario; Western T-service may need to be discontinued (but note that most market participants have indicated a preference to move their direct purchase arrangements to Dawn, so discontinuance of Western T-service may not be a significant disadvantage).
- Implementation would necessitate changes to Enbridge's business processes and systems.

**6) Are there mechanisms or enhanced inter-regulatory agency communication and agenda co-ordination that would facilitate the consideration of the potential broader impacts of specific regulatory applications?**

52. Enbridge believes that, in considering any enhanced inter-regulatory agency communication and agenda co-ordination, the Board should take into the consideration the logistics of doing so. From an upstream gas supply perspective, regulatory agencies such as the Board, the National Energy Board (“NEB”), the Federal Energy Regulatory Commission (“FERC”), and public service commissions in the U.S. have varying policies, procedures and timelines that could make enhanced communication and co-ordination difficult, if not impossible.
53. Further, Enbridge believes that the current communication and co-ordination process works well. Enbridge notes that it is incumbent upon any applicant to inform the Board of the broader impacts of specific regulatory applications when the Board hears a particular application. For example, Enbridge, Union and Gaz Métro all recognize the need for coordination during certain hearings at the NEB and frequently work together to ensure the NEB is aware of the regulatory circumstances in Ontario and Quebec. The same occurs at the Board, as can be seen from Enbridge’s GTA Project application, which involved coordination of effort amongst Enbridge, Union and TransCanada. The regulatory process allows parties to complete a hearing record with evidence about other regulatory applications and their potential impacts. In this way, the Board receives appropriate evidence about developments at other regulatory agencies, so that the Board can consider the potential broader impacts of specific applications.
54. Please see Enbridge’s comments on issue #9 for comments on enhanced inter-regulatory agency communication and agenda co-ordination as it relates to energy sector optimization.

**7) Regarding regulatory aspects of the natural gas and electricity markets interface, what process should the Board use to**

- **keep abreast of developments affecting both markets (e.g. role and regulation of natural gas storage); and**
- **facilitate better cross-sector communication and coordination (e.g. the impact of GDAR on potential information sharing between electricity and natural gas stakeholders)?**

55. The Board already has several processes in place to enable stakeholders in the natural gas and electricity markets interface (including the Board itself) to keep abreast of developments affecting both markets. For example, the monthly UDC reports compiled by Enbridge report storage capacity “fill percent”, as compared to targets. The Storage and Transportation Access Rule (STAR) reporting requirements cover a wide range of information on natural gas storage and transportation, contracts, inventory and capacity. It should also be noted that, while provincial natural gas storage levels affect gas-fired generators, most gas-fired generators’ operations are governed by their own current storage inventory level, deliverability, transportation and other balancing services and available nomination capability.
56. Enbridge supports good cross-sector communication and coordination of potential information sharing between electricity and natural gas stakeholders. Enbridge has been working with Union and the Independent Electricity System Operator on improved communication and cooperation. Enbridge welcomes further enhancement, and recognizes that authorization from the Board and/or customers will be required. While there are benefits of exchanging day-ahead information for operational planning the Independent System Operator and the natural gas utilities must consider that many Ontario gas-fired generators have access to same-day nomination windows to increase or decrease flow to a generating facility.

**8) In what ways should access to information on Ontario primary and secondary natural gas markets be made more transparent to buyers and sellers?**

57. In Enbridge’s view, no further transparency is necessary. Primary and secondary market information for transportation and storage is readily available on asset owners’ websites. Industry publications, such as Platts Gas Daily, contain information on natural gas commodity pricing for numerous pricing points around North America. Access to trading platforms like NGX or ICE provides real time pricing and trading capability. Broader “macro” gas market information is available on the NEB and Energy Information Administration (“EIA”) websites. In addition, there are several consulting firms which provide natural gas market information and reporting. Enbridge notes that, pursuant to the NEB’s RH-003-2011 and RH-001-2014 Decisions, TransCanada is consulting with interested stakeholders regarding the provision of, and access to, primary and secondary market information.

**9) What, if any, are the merits of a stakeholder discussion on how to facilitate broad energy sector optimization (e.g. storage; multi-source district heating/cooling; combined heat and power; CDM/DSM) and if so, in what context should such a discussion take place?.**

58. Enbridge has been an active participant in the advancement of energy sector optimization through technical developments and community energy planning. The opportunities and barriers to energy sector optimization are manifested at the local and regional level. Discussions of energy sector optimization are taking place in municipalities across Ontario through the development of local community energy plans. These planning exercises involve a broad range of stakeholders including the utilities, representatives of business, industry, the public sector, non-governmental and economic development organizations. Discussions to enable energy sector optimization are also ongoing with multiple stakeholders through working groups such as (but not limited to) the Ontario Combined Heat and Power Consortium, Advisory Council on Conservation, Conservation First Advisory Working Group, Ontario Energy Association and through organizations such as Quality Urban Energy Systems Tomorrow ("QUEST"), the Canadian Urban Institute ("CUI"), and the Federation of Canadian Municipalities ("FCM").
59. "Community Energy Planning: Getting to Implementation" ([www.gettingtoimplementation.ca](http://www.gettingtoimplementation.ca)) is a collaborative initiative spearheaded by the Community Energy Association, QUEST, and Sustainable Prosperity. The project involves analysis of 50 Community Energy Plans across Canada together with analysis of success factors and challenges to implementation based on interviews with 33 communities. The project objectives include:
- identifying barriers and opportunities for integrated and principle-based community energy planning;
  - defining business models for government agencies, utilities, real estate professionals and other community energy stakeholders;
  - developing tools and resources;
  - increasing understanding and awareness; and
  - improving capacity among CEP practitioners.
60. Findings from this phase of the project will be published in February of this year. Further geographically focused stakeholder discussions could build on this study, to gain a more in-depth understanding of the challenges, barriers and

opportunities which the early adopter communities in Ontario have faced, and to explore potential ways to address these. In Enbridge's view, further discussions should include those who are actively engaged in community energy planning in their municipalities, such as representatives of the electricity utility sector and the two gas utilities, together with appropriately qualified individuals and supportive organizations such as CUI, QUEST and the Ministry of Energy. Enbridge believes that, until the results of the Getting to Implementation research are available and the study requested in the new DSM Framework that requires review of the appropriate role for DSM in system planning, it would be premature to define the purpose, nature and context of further stakeholder discussions on energy sector optimization. Enbridge notes that future stakeholder discussions must necessarily take into account relevant changes to the regulatory framework (e.g. such as those recently approved by the Board in respect of DSM in EB-2014-0134) that may be required in order to enable broad energy sector optimization.