Ontario Energy Board | Commission de l'énergie de l'Ontario

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Final OEB Staff Report to the Ontario Energy Board

Consultation to Review Natural Gas Supply Plans

EB-2019-0137

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1 Introduction

On July 25, 2019, the Ontario Energy Board (OEB) initiated a consultation to review Enbridge Gas Inc.'s (Enbridge) five-year natural gas supply plans in keeping with the gas supply plan assessment process contemplated in the OEB's *Report of the Board: Framework for the Assessment of Distributor Gas Supply Plans* (Gas Supply Framework)[1].

This consultation did not include a review of the gas supply plans of EPCOR Natural Gas Limited Partnership (EPCOR), given timing and other circumstances that were unique to EPCOR's then current situation.[2]

Information and insight gained through the consultation assisted OEB staff in preparing its final Report to the OEB (the final OEB Staff Report). This final OEB Staff Report sets out OEB staff's assessment of Enbridge's five-year natural gas supply plans (the Plan). In particular, as per the Gas Supply Framework, OEB staff assessed the extent to which:

- Enbridge's Plan provides the framework criteria (i.e., the information requirements) used to evaluate whether the Plan meets the OEB's guiding principles of: i) cost-effectiveness, ii) reliability and security of supply and iii) public policy; and also delivers value to customers. The OEB's framework criteria are: i) demand forecast analysis, ii) supply option analysis, iii) risk mitigation analysis, iv) achieving public policy objectives, v) procurement process and policy analysis and vi) performance measurement.

- Enbridge's Plan includes a description of how the framework criteria have been met (e.g., for each of the criteria, Enbridge includes supporting documentation that demonstrates how it has met the criteria).

- Enbridge's Plan successfully balances the three OEB guiding principles in a way that is prudent and delivers value to customers.

[1] EB-2017-0129.
[2] OEB Letter dated July 25, 2019. Included EPCOR's Aylmer franchise area and the Southern Bruce franchise area.

1.1 Background

The Gas Supply Framework set out the OEB's approach for the assessment of the rate-regulated natural gas distributors' (distributors) supply plans. It identified three guiding principles to be used in assessing the distributors' gas supply plans:

- **Cost-effectiveness** – The gas supply plan will be cost-effective. Cost-effectiveness is achieved by appropriately balancing the principles and in executing the supply plan in an economically efficient manner.

- **Reliability and security of supply** – The gas supply plan will ensure the reliable and secure supply of gas. Reliability and security of supply is achieved by ensuring gas supply to various receipt points to meet planned peak day and seasonal gas delivery requirements.

- **Public policy** – The gas supply plan will be developed to ensure that it supports and is aligned with public policy where appropriate.

The OEB clarified that cost-effectiveness does not necessarily mean the "lowest cost," reliability does not mean "reliable at any cost" or "any level of reliability" and support for public policy does not mean "support at any cost". Rather, the intent was to strike a balanced approach to the benefit of customers. Distributors would be required to demonstrate that their gas supply plans balance the principles in a way that is prudent and appropriate for customers. It was expected that distributors would employ strategies that clearly describe their approach, customer impacts and risks associated with both the options considered and chosen to deliver value to customers.[3]

The OEB also stated that a distributor's plan must meet specific criteria established by the OEB and the gas supply plan should include a description of how the criteria have been met. The framework criteria are the following:

- **Demand Forecast Analysis**: A distributor must describe: i) the process used to develop its demand forecasts, ii) the factors impacting its demand forecasts such as historical demand, customer demographic trends and changing weather patterns, and iii) associated risks. A distributor is expected to also use its OEB-approved methodology when preparing these forecasts.

[3] EB-2017-0129, Gas Supply Framework, p. 8.

- **Supply Option Analysis**: A distributor must describe the options that were considered and how the selected option was determined. The option analysis is to include: landed costs, bill impacts, the risks associated with each option and how the option aligns with the OEB's guiding principles.

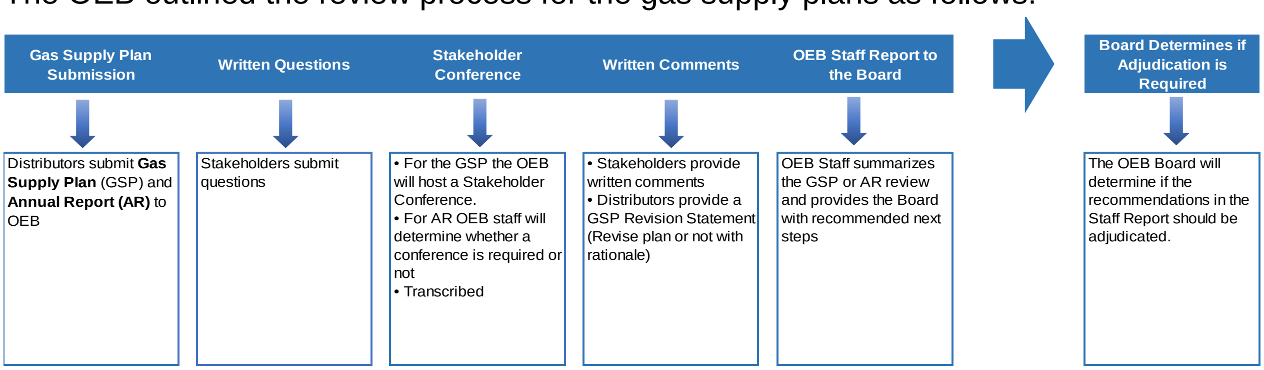
- **Risk Mitigation Analysis**: A distributor must provide a clear description of the risk management process (identification and mitigation) and an assessment of the risk/cost trade-off implications for customers that are associated with options examined. A distributor must also include a suite of scenarios: best, most likely and worst scenarios.

- **Achieving Public Policy**: A distributor must identify and demonstrate the public policy (i.e., public policy that is in effect, not proposed) that its gas supply plan is supporting and how it balanced achieving this with the other guiding principles.

- **Procurement Process and Policy Analysis**: A distributor must provide an overview of its gas procurement policies including how the distributor monitors the market and what resources are applied to ensure that it meets demand.

- **Performance Measurement**: A distributor must develop performance metrics that reflect the OEB's criteria and demonstrate how the OEB's guiding principles have been achieved.

The OEB outlined the review process for the gas supply plans as follows:



A distributor would be required to submit a comprehensive five-year gas supply plan for a detailed review once every five years. A distributor would also be required to submit an annual gas supply update (Annual Update) that focuses on the changes to the supply and demand conditions and includes a retrospective view of the gas supply plan's performance.

1.2 The Process

On May 1, 2019, Enbridge filed its five-year gas supply plans with the OEB. Enbridge's gas supply plans covered the EGD and Union rate zones.[4]

On July 25, 2019, the OEB issued a letter that initiated the consultation to review Enbridge's Plan. In that July 25, 2019 letter, the OEB stated that the consultation would mostly follow the review process outlined above with the exception of one additional step to allow stakeholders further opportunity for input. Specifically, the OEB included the opportunity for Enbridge and stakeholders to comment on a draft OEB Staff Report. The draft OEB Staff Report would outline OEB staff's initial assessment of Enbridge's Plan against the guiding principles of the Gas Supply Framework.

Appendix A outlines the participants in this consultation.

On September 6, 2019, thirteen stakeholders and OEB staff filed questions to Enbridge on its Plan. On September 23 and 24, 2019, a transcribed stakeholder conference was held where Enbridge addressed the written questions. The participants at the stakeholder conference included Enbridge, OEB staff and seventeen stakeholders representing ratepayer groups, environmental groups, industry associations and other stakeholders.

On October 21, 2019, thirteen stakeholders submitted their written comments on Enbridge's Plan. OEB staff did not submit written comments. On November 18, 2019, Enbridge submitted its written comments that responded to the stakeholder comments received. Enbridge stated that no changes to the Plan were required. These comments (stakeholders and Enbridge) are summarized in Appendix B.

On December 19, 2019, OEB staff issued its draft OEB Staff Report for stakeholder comment. On January 17, 2020, Enbridge and ten stakeholders submitted their comments on the draft OEB Staff Report.

All material related to this consultation is available on the OEB's website.

[4] Effective January 1, 2019, Enbridge Gas Distribution Inc. and Union Gas Limited are now operating as Enbridge Gas Inc.

2 Summary of Natural Gas Supply Plans – An Overview

Enbridge's gas supply plans cover the EGD rate zone and the Union rate zones (Union North West, Union North East and Union South). Enbridge will maintain these rate zones throughout the five-year deferred rebasing period approved by the OEB in its Decision and Order regarding the amalgamation of EGD and Union.[5] Each of the rate zones has a distinct gas supply plan that reflects portfolio decisions and strategies for that particular rate zone.

For the EGD rate zone, the five-year gas supply plan is for the period of January 1, 2020 to December 31, 2024 and for the Union rate zones, it is for the period of November 1, 2019 to October 31, 2024.

For each of the rate zones, Enbridge prepares its gas supply plan as follows:

- An annual demand forecast is prepared using the OEB-approved methodologies[6] to forecast the number of billed customers and the total annual throughput volumes by the general service market and contract market. Enbridge's regression models for each rate zone include similar variables such as heating degree days, natural gas prices and other economic variables.

- A design day demand forecast is developed using OEB-approved design criteria. Enbridge uses regression models to forecast the design day demand by weather zones.[7] For the EGD rate zone, the design day forecast is based on a one-in-five recurrence interval and for the Union rate zones, it is based on the coldest observed day.

- The current portfolio of supply and transportation assets is examined to see whether Enbridge's assets meet the design day demand forecast and annual day requirements by rate zone.[8]

- Any shortfalls are identified which triggers Enbridge to evaluate supply and

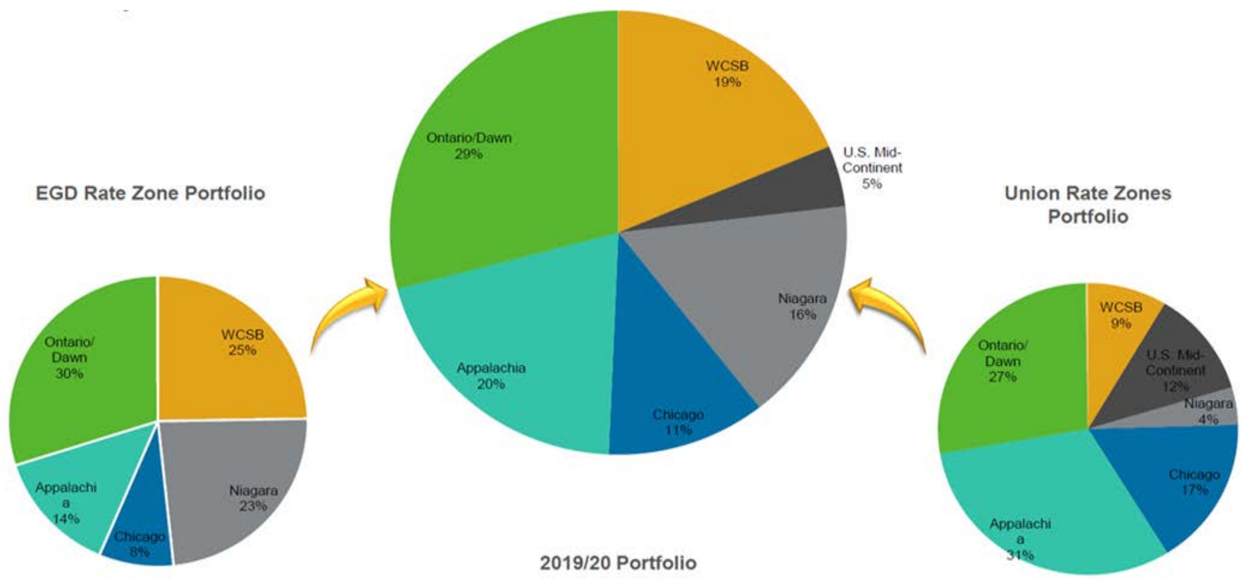
[5] In EB-2017-0306 / 0307, the OEB approved a deferred rebasing period of five years. The next rebasing application is expected for 2024 rates.
[6] For the EGD rate zone, it is consistent with the methodologies approved in RP-2000-0040 and EB-2014-0276. For the Union rate zones, it is consistent with the methodologies approved in EB-2011-0210.
[7] EGD weather zones are central, eastern and Niagara. Union weather zones are London, Thunder Bay and Sudbury.
[8] TR: Stakeholder Conference, September 23, 2019, pp. 80-83.

transportation option alternatives to meet its forecasts.

2.1 Commodity, Transportation and Storage Portfolios

Enbridge purchases gas sourced from several production regions including Western Canada, Appalachia[9], and the U.S. Mid-Continent in addition to purchases at Chicago and Dawn (two liquid market hubs that receive gas from multiple supply sources in North America). Over the last decade, Enbridge has been moving to more proximate locations such as Dawn, Niagara[10] and Appalachia to purchase its gas supplies.[11] Figure 1 below outlines Enbridge's 2019-2020 gas supply portfolio.

Figure 1 – Enbridge's 2019-2020 Gas Supply Portfolio



Source: Enbridge Gas Inc.

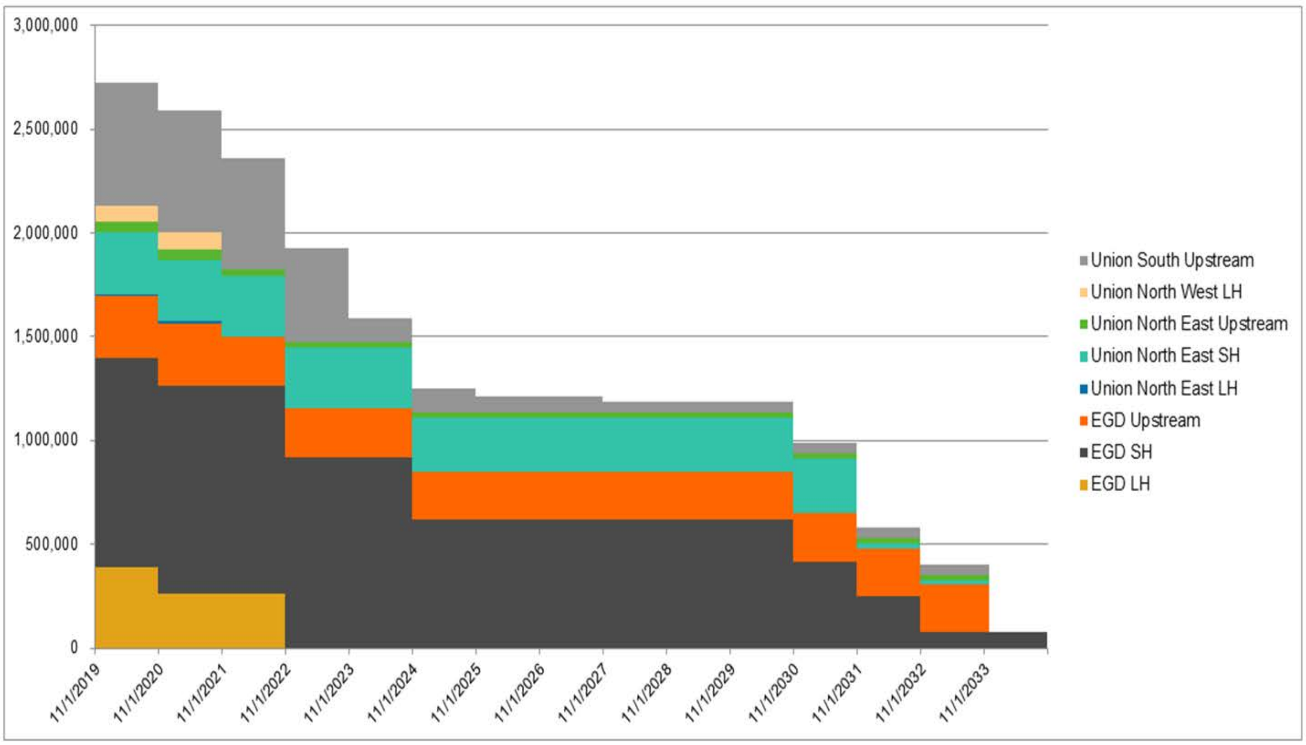
Typically, Enbridge purchases gas supply on index price contracts and in the forward market on a daily, monthly, seasonal, annual and multi-year basis. In recent years, Enbridge has contracted 50 to 60 percent of its gas supply on terms of one month or

[9] Shale gas play in U.S. Northeast that includes Marcellus and Utica.
[10] Niagara delivery point is located at the U.S. – Canada border.
[11] TR: Stakeholder Conference, September 23, 2019, p. 81.

less, 20 to 30 percent on terms of greater than one month but less than one year and approximately 20 percent on terms of one to two years.[12]

Enbridge's transportation portfolio as shown in Figure 2 includes different pathways such as TransCanada PipeLines Limited Canadian Mainline (TCPL)[13], Nova Gas Transmission (NGTL), Vector Pipeline (Vector), Panhandle Eastern Pipeline (Panhandle), NEXUS Gas Transmission (NEXUS), St. Clair Pipeline (St. Clair) and Bluewater Pipeline (Bluewater). Also, the transportation portfolio reflects different contract terms and contract types (e.g., short-haul vs. long-haul transportation services).

Figure 2 – Enbridge's 2019-2020 Transportation Portfolio



Source: Enbridge Gas Inc.

The amount of cost-based storage that Enbridge reserves for the EGD rate zone is 99.4 PJ. The amount of cost-based storage that Enbridge reserves for the Union rate zones is 100 PJ. These amounts were determined by the OEB in its Natural Gas Electricity

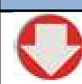
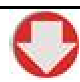
[12] TR: Stakeholder Conference, September 24, 2019, pp. 55, 66 and 67. Also, Enbridge stated that it may have contracts that are up to three years in length.
[13] TransCanada PipeLines Limited is now TC Energy.

Interface Review (NGEIR) decision[14] and confirmed in the OEB's Decision and Order on the amalgamation of EGD and Union[15]. Enbridge allocates storage space to its customers in the EGD and Union rate zones based on methodologies approved by the OEB as part of its Decision on Natural Gas Storage Allocation Policies.[16]

2.2 Evaluation Matrix

Enbridge developed an evaluation matrix to evaluate new supply and transportation options. The evaluation matrix compares the new options (or strategies) to Enbridge's current portfolio. Below in Table 1 is an illustrative example of Enbridge's evaluation matrix (where the symbols are: green is positive, yellow is neutral and red is negative).

Table 1 – Evaluation Matrix

Option	Reliability	Flexibility	Diversity	Cost ($/GJ)	Average Cost/Customer Impact
Option A					
Option B					

Enbridge assesses each new option against the categories (reliability, flexibility, diversity, cost and customer impact) in the matrix to determine whether to include the option in its portfolio. For example, if Enbridge is assessing whether to purchase a supply/transportation option, it would conduct both qualitative and quantitative analysis including:

- **Reliability** – Does the option allow Enbridge to procure at a liquid point? Does the option provide Enbridge with the ability to deliver firm supply to its distribution system? Does the option allow Enbridge to control the delivery of that supply? And does the option allow delivery to multiple gate stations?

[14] EB-2005-0551.
[15] EB-2017-0306/0307.
[16] EB-2007-0274 / 0275.

- **Flexibility** – Is the option available in the market today? Does the option allow for multiple commodity procurement terms? Does the option contain discretionary service attributes? Does the option provide adequate nomination windows to balance intra-day demand? Is the option available for renewal? And does the option require a long-term commitment?

- **Diversity** – Does the option deliver supply through new and different paths? Are there a number of counter-parties available to transact with? And to a lesser extent, how much design day demand is met through this option?

- **Cost and Customer Impact** – What are the landed costs ($/GJ/d) and annual costs ($/GJ/yr) of the option? What is the bill impact on customers (e.g., the incremental cost changes relative to the current gas supply portfolio)?[17]

2.3 Plan Execution

Enbridge updates its gas supply plan for each rate zone on an annual basis. The gas supply plans are approved by the executive team and then given to the procurement team to procure the necessary assets that were identified in the plan. Once the assets are put in place and the commodity purchase plans for each of the rate zones are underway, a cross-functional team monitors commodity prices, market conditions, inventory levels and consumption. This team meets regularly to determine whether any changes to the commodity purchase plans are required.[18]

For each rate zone, Enbridge conducts a monthly procurement plan that identifies specific volumes and dates for the transactions to be executed. However, Enbridge's commodity procurement decisions are made throughout the year based on the latest market conditions, weather forecasts and operational data available (i.e., these decisions are carried out in real time market conditions).

The gas procured through the execution of the gas supply plans remain subject to each of the rate zones' distinct gas supply procurement policy and the associated governance, risk mitigation and oversight contained within these policies. Currently, Enbridge is in the process of harmonizing these policies, with the final internal approval targeted for December 2019.[19]

[17] TR: Stakeholder Conference, September 23, 2019, pp. 84-88.
[18] TR: Stakeholder Conference, September 24, 2019, pp. 52-54.
[19] TR: Stakeholder Conference, September 24, 2019, pp. 101-102.

2.4 Risk Mitigation Analysis

Enbridge, in its Plan, describes its risk management process (identification and mitigation). Enbridge identifies a number of risks such as weather variation risk, demand forecast variation risk, pricing variation risk, and supply and transportation interruptions.

Enbridge also describes how it intends to mitigate these risks such as: i) maintaining diversity and flexibility in its commodity purchasing plan and ii) holding a diverse mix of transportation contracts with multiple providers and differing contract parameters.

Enbridge retained ICF International Inc. (ICF) to conduct scenario analysis (base case, worst case and best case weather scenarios) on weather volatility to examine the impact of weather on demand, pricing and portfolio costs.[20] ICF found that differences in weather can have a significant impact on natural gas prices.

2.5 Performance Measures

Enbridge outlines the performance metrics that will be used to monitor the effectiveness of the Plan. The performance metrics have been categorized to reflect the OEB's guiding principles of cost-effectiveness, reliability and security of supply, and public policy. Enbridge has established an internal process to track these metrics and intends to file its first completed scorecard as part of its first Annual Update in 2020.[21]

[20] EB-2019-0137 Enbridge's 5-year Gas Supply Plan, Appendix E.
[21] TR: Stakeholder Conference, September 24, 2019, pp. 52-54.

3 Natural Gas Supply Plans by Rate Zones

3.1 EGD Rate Zone

Within the EGD rate zone, Enbridge provides natural gas distribution services to over 2.2 million residential, commercial and industrial customers located throughout Ontario. The EGD rate zone is divided into two distinct regions for gas supply planning purposes:

- Eastern Delivery Area (EDA): Containing Brockville, Ottawa, Gatineau (via Gazifère Inc.) and the surrounding area
- Central Delivery Area (CDA): Containing the GTA, the Niagara Peninsula, Barrie, Midland, Peterborough, and the surrounding area

The geographic location of the EGD rate zone impacts its gas supply plan for a variety of reasons, including: climate and weather seasonality; population and customer makeup; and access to natural gas production basins, storage facilities and supply hubs.

Annual Demand Forecast

The gas supply plan for the EGD rate zone is based on a weather normalized demand forecast for general service and contract market customers. As outlined in Table 2 below, the annual demand forecast is expected to be almost flat over the 2020-2024 period. Customer growth partially offsets the continued decline in average use for the residential sector while contract market volumes are expected to remain stable.

Table 2 – EGD Rate Zone: Annual Demand Forecast

Line No.	Particulars (TJ)	2020	2021	2022	2023	2024
1	General Service	384,494	384,233	384,182	384,703	385,403
2	Contract Market	73,664	73,227	72,789	72,353	71,917
3	Total EGD Demand Forecast	458,159	457,460	456,971	457,055	457,319

Source: Enbridge Gas Inc.

Design Day Demand Forecast

Design day criteria are used to develop a natural gas supply plan that meets a distributor's design day demand forecast and account for the risk of an extreme weather event or multiple extreme weather events. The design day demand is derived using the heating degree day (HDD) assumed within the design criteria. For the EGD rate zone, the design criteria utilizes a 1-in-5 recurrence interval and 18 multi-peaks representing the coldest temperatures that are expected to occur during January to the end of March.[22] Enbridge ensures that when developing its gas supply plan for the EGD rate zone, it must meet the expected winter demand on design day, or the day of the highest demand. Table 3 below outlines the design day demand forecast for the EGD rate zone by delivery area.

The forecast of design day demand for the EGD rate zone is conducted by evaluating the underlying market demand for natural gas (i.e., forecasts consumption behaviour during extreme cold weather events) to estimate a regression model. The regression model is then combined with the design day criteria for weather and a projection of customer growth to forecast design day demand.

Table 3 – EGD Rate Zone Design Day Demand Forecast by Delivery Area

Line No.	Particulars (TJ)	2020	2021	2022	2023	2024
1	CDA	3,414	3,426	3,439	3,451	3,463
2	EDA	723	730	738	745	752
3	EGD Rate Zone	4,137	4,157	4,176	4,196	4,215

Source: Enbridge Gas Inc.

Design Day Analysis

Each year Enbridge conducts a design day supply / demand balance for the CDA and EDA regions in the EGD rate zone where the projected design day for each of the regions is compared against existing contracted assets serving each of the regions as shown in Tables 4 and 5.

[22] EGD's design day criteria was approved by OEB in EB-2011-0354.

Table 4 – EGD Rate Zone: CDA Design Day Supply/Demand Balance

Line No.	Particulars (TJ)	2020	2021	2022	2023	2024
	Design Day Demand					
1	Gross Design Day Demand	3,414	3,426	3,439	3,451	3,463
2	Curtaliment	(79)	(79)	(79)	(79)	(79)
3	Net CDA Design Day Demand	3,335	3,347	3,360	3,372	3,384
	CDA Design Day Supply Assets					
4	In-Franchise Supply	88	88	88	88	88
5	Third-Party Services	40	-	-	-	-
6	TCPL Long Haul	5	5	5	5	5
7	TCPL Short Haul	668	668	768	768	768
8	TCPL STS	284	284	284	284	284
9	EGI D-P	2,194	2,194	2,194	2,194	2,194
10	CDA Design Day Supply Assets	3,279	3,239	3,339	3,339	3,339
11	**CDA Design Day Supply Assets Surplus/(Shortfall)**	**(56)**	**(108)**	**(21)**	**(33)**	**(45)**
12	*Shortfall % of Net Design Day Demand*	*2.9%*	*3.2%*	*0.6%*	*1.0%*	*1.3%*

Source: Enbridge Gas Inc.

Table 5 – EGD Rate Zone: EDA Design Day Supply/Demand Balance

LineNo.	Particulars (TJ)	2020	2021	2022	2023	2024
	EDA Design Day Demand					
1	Gross Design Day Demand	723	730	738	745	752
2	Curtaliment	(30)	(30)	(30)	(30)	(30)
3	Net EDA Design Day Demand	693	700	707	715	722
	EDA Design Day Supply Assets					
4	In-Franchise Supply	0	0	0	0	0
5	TCPL Long Haul	260	260	260	260	260
6	TCPL Short Haul	337	337	362	362	362
7	TCPL STS	81	81	81	81	81
8	EDA Design Day Supply Assets	678	678	703	703	703
9	**EDA Design Day Supply Assets Surplus/(Shortfall)**	**(15)**	**(22)**	**(5)**	**(12)**	**(19)**
10	Shortfall % of Net Design Day Demand	*2.1%*	*3.2%*	*0.6%*	*1.7%*	*2.6%*

Source: Enbridge Gas Inc.

As Tables 4 and 5 shows, the CDA and EDA regions in the EGD rate zone have a shortfall of gas supply assets relative to projected design day demand during the five year period. This shortfall requires Enbridge to evaluate supply option alternatives, using its evaluation matrix, to meet its design day demand.

Based on Enbridge's evaluation of the supply option alternatives (peaking services, Dawn Parkway, long-haul contracts and short-haul contracts), Enbridge concludes that its preferred strategy to eliminate the design day asset shortfall is to procure a peaking service for each year of the Plan. Enbridge indicates that this option is the lowest cost option, has limited reliability concerns for the design day plan, is readily available in the market on short notice and has some marginal benefits to overall portfolio diversity.[23]

In addition, several firm transportation contracts that underpin the Plan, for the EGD rate zone, to meet design day demand are coming up for renewal. Enbridge's preferred strategy is to continue to renew each of the TCPL contracts [24] on an annual basis. Enbridge indicates that these contracts ensure security of supply and the reliability of the Plan.

Enbridge also includes storage assets in the Plan for the EGD rate zone as it is a cost-effective alternative to purchasing commodity when required by customers. Because the EGD rate zone does not have enough storage space to meet its in-franchise requirements, it must purchase market-based storage from other storage providers in the marketplace. Enbridge conducts an annual blind request for proposal (RFP) process to replace expiring storage capacity. Enbridge uses a blind RFP process because Enbridge and its affiliates own and operate a significant amount of non-utility storage in Ontario. Enbridge has retained Deloitte Touche Tohmatsu Limited (Deloitte) to administer the RFP process. The proposals are an all-in delivered-to-Dawn price and Deloitte anonymizes these proposals based on the price, volume and injection / withdrawal capabilities.

Average Day Requirements

Enbridge's next consideration is to determine whether there is transportation capacity from particular supply basins and market hubs to reliably serve demand on an average day. Enbridge expects average day demand to be flat in the EGD rate zone. As a result, Enbridge's existing transportation capacity that is connected directly to Dawn and EGD rate zone storage assets are sufficient to meet growth in average day demand.

To manage any changes to average day demand, Enbridge evaluated whether contracting for additional transportation assets upstream of Dawn or purchasing commodity at Dawn would provide the EGD rate zone with additional reliability, flexibility, diversity and cost-effectiveness. Enbridge indicates that purchasing at Dawn is a cost-effective and reliable alternative that provides flexibility since no additional firm

[23] EB-2019-0137 Enbridge's 5-year Gas Supply Plan, p. 48.
[24] EB-2019-0137 Enbridge's 5-year Gas Supply Plan, p. 54, Table 17 outlines a list of transportation contracts to be renewed.

transportation contracts would be required (i.e., it can use existing transportation assets). Enbridge concludes that its preferred strategy is to manage any changes in average day demand through purchases at Dawn and not change the current portfolio.

Transportation Contract Renewals

Several firm transportation contracts that underpin the Plan to serve the EGD rate zone are coming up for annual renewal. These transportation contracts deliver gas upstream of the EGD rate zone. Based on Enbridge's evaluation of the alternatives, its preferred strategy is to continue to renew the NGTL and Vector contracts.[25] Enbridge indicates that it holds NGTL capacity as a means to diversify its Alberta purchases. This allows Enbridge to make supply arrangements with multiple counterparties across multiple points and this helps to limit the risk of pricing disparities in Alberta. Enbridge also indicates that its Vector contracts provide its portfolio with diversity, a reliable source of supply from a liquid hub (Chicago), and flexibility as it can renew the contract on an annual basis.

3.2 Union Rate Zones

Within the Union rate zones, Enbridge provides natural gas distribution services to over 1.5 million residential, commercial and industrial customers located throughout Ontario. The Union rate zones are divided into three distinct regions for gas supply purposes – Union North West, Union North East and Union South. Together Enbridge's Union North West and Union North East regions are referred to as Union North. The delivery areas within each of these regions are described below:

Union North West:
- Manitoba Delivery Area (MDA): Containing Fort Frances and surrounding areas
- Western Delivery Area (WDA): Stretches from Longlac to Kenora containing Thunder Bay, Dryden and surrounding areas
- Sault Ste. Marie Delivery Area (SSMDA): Containing Sault Ste. Marie and surrounding areas

Union North East:
- North Delivery Area (NDA): Stretches from North Bay to Calstock containing North Bay, Sudbury, Timmins and surrounding areas

[25] EB-2019-0137 Enbridge's 5-year Gas Supply Plan, p. 55, Table 18.

- North Central Delivery Area (NCDA): Stretches from Orillia to North Bay containing Parry Sound, Huntsville and surrounding areas
- Eastern Delivery Area (EDA): Stretches from Coburg to Cornwall containing Belleville, Kingston, Brockville and surrounding areas

Union South:

- Union South: Stretches from Windsor to Owen Sound to Oakville containing Sarnia, London, Goderich, Waterloo, Kitchener, Cambridge, Guelph, Burlington, Milton, Brantford, Hamilton and surrounding areas

Of the 1.5 million customers in the Union rate zones, approximately 1.4 million are system supply customers that rely on Enbridge to provide their gas supply. The Union rate zones are spread across Ontario and encompass different customer bases and weather patterns.

Annual Demand Forecast

The gas supply plans for the Union rate zones are based on weather normalized demand forecast for general service and contract market customers. As outlined in Table 6 below, the annual demand forecast is expected to be relatively flat over the 2020-2024 period.

Table 6 – Union Rate Zones: Annual Demand Forecast by Delivery Area

Line No.	Particulars (TJ)	2019/20	2020/21	2021/22	2022/23	2023/24
	Union North West					
1	General Service	14,022	13,886	13,814	13,742	13,741
2	Contract	1,338	1,330	1,372	1,363	1,355
3	Total Union North West	15,360	15,216	15,185	15,105	15,095
	Union North East					
4	General Service	36,339	35,967	35,765	35,558	35,533
5	Contract	3,644	3,683	3,955	5,198	5,305
6	Total Union North East	39,983	39,650	39,720	40,756	40,838
	Union South					
7	General Service	164,963	163,321	162,482	161,632	161,595
8	Contract	51,379	51,720	52,144	52,436	52,659
9	Total Union South	216,342	215,041	214,626	214,068	214,254
10	Total Union Forecast Demand	271,685	269,907	269,531	269,929	270,188

Source: Enbridge Gas Inc.

Design Day Demand Forecast

The design day criteria is based on the coldest observed day in each of the Union rate zones.[26] Within the Union rate zones, Enbridge ensures that assets (supply, transportation and storage) are available to provide firm service to customers on the design day. Enbridge develops a linear regression using the daily firm customer consumption from the prior winter and corresponding daily HDD data. Enbridge then extrapolates the resulting regression line to the coldest observed HDD for each region to develop its design day demand forecast for the Union rate zones as outlined in Table 7 below.

Table 7 – Union Rate Zones: Design Day Forecast by Delivery Area

Line No	Particulars (TJ/day)	2019/20	2020/21	2021/22	2022/23	2023/24
1	Union North West*	130	129	129	128	128
2	Union North East*	403	400	408	408	411
3	Union South**	3,108	3,139	3,265	3,314	3,344

* Includes Sales Service, Bundled DP, North Dawn T- Service
** Includes Sales Service, Bundled DP, T- Service
Source: Enbridge Gas Inc.

Design Day Analysis

Each year Enbridge conducts a design day supply / demand balance for each of the regions – Union South, Union North West and Union North East – where the projected design days for each of the regions are compared against existing contracted assets serving each of the regions as shown in Tables 8 and 9.

[26] EB-2019-0137 Enbridge's 5-year Gas Supply Plan, pp. 72-73.

Table 8 – Union South Rate Zone: Design Day Supply/Demand Balance

Line No.	Particulars (TJ/day)	2019/20	2020/21	2021/22	2022/23	2023/24
	Demand					
1	Union South*	3,108	3,139	3,265	3,314	3,344
	Supply					
2	Empress	3	3	3	3	3
3	Nexus	106	106	106	106	106
4	Non-obligated (e.g. Power Plants)	270	270	270	270	270
5	Ontario Dawn	548	549	641	643	645
6	Ontario Parkway	225	225	222	220	226
7	Panhandle	60	60	60	60	60
8	TCPL Niagara	21	21	21	21	21
9	Vector	84	84	84	84	84
10	Redelivery from Storage	1,790	1,821	1,858	1,907	1,928
11	Total Supply	3,108	3,139	3,265	3,314	3,344
12	Excess(Shortfall)	-	-	-	-	-

* includes Sales Service, Bundled DP, T-Service

Source: Enbridge Gas Inc.

As shown in Table 8 above, Enbridge is forecasting no excess or shortfall for the Union South rate zone over the term of the Plan.

Table 9 – Union North Rate Zones: Design Day Supply/Demand Balance

Line No.	Particulars (TJ/day)	North West 2019/20	North West 2020/21	North West 2021/22	North West 2022/23	North West 2023/24	North East 2019/20	North East 2020/21	North East 2021/22	North East 2022/23	North East 2023/24
	Demand										
1	Union North*	130	129	129	128	128	403	400	408	408	411
	Supply										
2	Empress	78	78	78	78	78	4	4	4	4	4
3	Dawn	-	-	-	-	-	67	67	67	67	67
4	Nexus	-	-	-	-	-	53	53	53	53	53
5	North Dawn T-Service	-	-	-	-	-	33	33	33	33	33
6	Redelivery from Storage										
7	*From Parkway*										
8	STS Withdrawals	31	31	31	31	31	81	82	88	88	88
9	STS Pooled Withdrawals	-	-	-	-	-	21	17	16	15	17
10	Short-haul Firm	-	-	-	-	-	119	119	119	119	119
11	Enhanced Market Balancing	-	-	-	-	-	25	25	25	25	25
12	*From Dawn*										
13	STS Withdrawals	19	19	18	18	18	-	-	-	-	-
14	Total Supply	128	128	128	127	127	403	400	406	405	406
15	Excess(Shortfall)	-1	-1	-1	-1	-1	0	0	-3	-4	-5

* includes Sales Service, Bundled DP, North Dawn T-Service

Source: Enbridge Gas Inc.

As shown in Table 9 above, Enbridge is forecasting a 1 TJ/d shortfall every year of the Plan in the North West. This shortfall is specific to the Union WDA delivery area. The supply options to serve the WDA are limited to TCPL as it is the only pipeline to service this delivery area. Therefore, Enbridge's preferred strategy is to continue to procure firm long-haul transportation from TCPL through existing capacity open seasons on a short term basis. Enbridge indicates that contracting for one year at a time gives it flexibility to adjust the contracted pipe as planned requirements may change.[27]

For Union North East, Enbridge is forecasting a shortfall starting in 2021/22 as a result of growth in the Union EDA delivery area. At this time, Enbridge does not have a preferred strategy as it will evaluate options using its evaluation matrix post-2020[28].

Enbridge also includes storage assets in the Plan for the Union rate zones as Enbridge indicated that it is a cost-effective alternative to contracting for upstream firm

[27] EB-2019-0137 Enbridge's 5-year Gas Supply Plan, pp. 84-85.
[28] Options will be evaluated within the context of the post-2020 TCPL toll negotiations.

transportation services. Enbridge manages storage for Union North through services purchased from TCPL.

Average Day Requirements

Enbridge's next consideration is to determine whether there is transportation capacity from particular supply basins and market hubs to reliably serve demand on an average day. In the Union rate zones, Enbridge expects average day demand to fall by 1,801 TJ over the term of the Plan. As a result, Enbridge's existing transportation capacity that is connected directly to Dawn and its storage assets are sufficient to meet average day demand.

To manage any changes to average day demand, Enbridge evaluated whether contracting for additional transportation assets upstream of Dawn or purchasing the commodity at Dawn would provide the Union rate zones with additional reliability, flexibility, diversity and cost-effectiveness. Enbridge concludes that its preferred strategy is to manage any changes in average day demand through purchases at Dawn as this does not require any procurement of additional assets.

Transportation Contract Renewals

Several firm transportation contracts (Vector, St. Clair, Bluewater and TCPL) that underpin the Plan to serve the Union rate zones are coming up for renewal. [29]

The Vector, St. Clair and Bluewater pipelines are used to service the Sarnia in-franchise market. Enbridge indicates that this is one of the largest petrochemical and refined petroleum manufacturing areas in North America and requires substantial and increasing natural gas flow all year round. Enbridge notes that its Vector contracts expire on October 31, 2022 and can be extended for three years with one year's notice. At this time, Enbridge's preferred strategy is to continue to renew capacity on Vector, St. Clair and Bluewater as these contracts ensure security of supply and the reliability of the Plan. However, Enbridge states that alternative options will be evaluated closer to the expiry date of its Vector contracts as market conditions could change.

[29] EB-2019-0137 Enbridge's 5-year Gas Supply Plan, p. 91 outlines a list of transportation contracts to be renewed.

For its TCPL contract, Enbridge's preferred strategy is to continue to renew all existing capacity and evaluate alternative options in the context of the post-2020 TCPL toll negotiations.

4 Written Comments on draft OEB Staff Report

4.1 A Summary

The consultation provided stakeholders and Enbridge several opportunities to submit written comments. For the first round of comments, stakeholders were provided an opportunity to submit written comments on Enbridge's Plan and on October 21, 2019, thirteen stakeholders[30] submitted written comments. Many of these written comments focused on the consultation process and the integration of Enbridge's gas supply plans across its rate zones. Enbridge was given the opportunity to review stakeholders' written comments and decide whether to: (i) provide written comments in response, and/or (ii) revise its Plan and provide a revision statement that outlines any changes, together with the rationale for those changes. Enbridge responded to the written comments and indicated that no changes to the Plan were required. These comments (stakeholders and Enbridge) are summarized in Appendix B.

For the second round of comments, stakeholders and Enbridge were provided an opportunity to submit comments on the draft OEB Staff Report (which was issued on December 19, 2019). On January 17, 2020, ten stakeholders[31] and Enbridge submitted written comments on the draft OEB Staff Report.

BOMA and LPMA were generally supportive of the draft OEB Staff Report.

Enbridge was also generally supportive of the draft OEB Staff Report and agreed to:

- File additional information in the Annual Updates that OEB staff identified in the draft OEB Staff Report
- Take OEB staff's concerns outlined in the draft OEB Staff Report into account when planning and executing its next blind RFP process for storage

[30] Anwaatin Inc. (Anwaatin); Building Owners and Managers Association, Greater Toronto (BOMA); Canadian Manufactures & Exporters (CME); Energy Probe Research Foundation (Energy Probe); Environmental Defence (ED); Equinor Natural Gas LLC (Equinor); Federation of Rental-housing Providers of Ontario (FRPO); London Property Management Association (LPMA); Ontario Petroleum Institute Inc. (OPI); Pollution Probe; School Energy Coalition (SEC); Six Nations Natural Gas Co. (Six Nations Gas); and Vulnerable Energy Consumers Coalition (VECC).

[31] Anwaatin Inc. (Anwaatin); Building Owners and Managers Association, Greater Toronto (BOMA); Energy Probe Research Foundation (Energy Probe); Environmental Defence (ED); Equinor Natural Gas LLC (Equinor); Federation of Rental-housing Providers of Ontario (FRPO); London Property Management Association (LPMA); Ontario Petroleum Institute Inc. (OPI); Pollution Probe; and TransCanada PipeLines Limited Canadian Mainline (TCPL).

- Meet with OPI. However, Enbridge commented that it was not clear whether it is appropriate or possible to make any of the changes that OPI proposed

OPI supported OEB staff's suggestion to hold meetings with OPI and Enbridge during 2020. OPI stated that that it believes that the OEB possesses broad power to review Enbridge's underlying agreements and that OPI's concerns (which are similar to OPI's comments submitted in October 2019 and are outlined in Appendix B) are within the OEB's jurisdiction.

ED suggested that where a gas supply plan option necessitates an infrastructure investment, this investment should be identified and discussed in the gas supply plan as Enbridge has a financial stake and bias in favour of the option on which it earns a return. Further, ED proposed that any required infrastructure projects identified in a gas supply plan should not be exempted or otherwise pre-approved with respect to any separate required OEB approvals (e.g., leave to construct and/or rate approvals).

LPMA commented that additional information in Enbridge's gas supply plan would be helpful such as: 1) the impact on storage (including purchases at Dawn) of a disruption of either getting gas to or through Dawn on a design day or close to a design day and 2) sensitivity analysis with respect to annual volumetric demand forecast.

Pollution Probe wanted the OEB to provide clarity on the Annual Update process such as how it would work and how the OEB and stakeholders would fit in.

FRPO commented that Enbridge should, in the 2020 Annual Update, outline the steps it plans to take to address the different interruptible policies in each of the rate zones.

OEB staff notes that many of the comments (other than the comments discussed above) submitted by stakeholders (Anwaatin, BOMA, ED, Equinor, Energy Probe, FRPO, Pollution Probe and TCPL) were similar to the previously submitted comments on Enbridge's Plan including:

- Preference for an adjudicative process rather than a consultation process and the lack of clarity around processes to review costs
- The importance of integrating the gas supply plans including the demand forecasts across Enbridge's rate zones
- Encouraging Enbridge to include demand side management (DSM) as one of the options in the supply options analysis
- Concerns over Enbridge's selected options that were included in the Plan (e.g., Dawn vs. Niagara-Kirkwall as a supply source and third-party delivered services vs. long-term firm transportation services)

- The OEB's NGEIR policies and Storage and Transportation Access Rule (STAR) should be reviewed because of the merger of EGD and Union
- Enbridge's performance measures should include DSM activities and targets, Integrated Resource Planning (IRP) and community planning
- The process should address rate assistance to low-income Indigenous communities

4.2 OEB Staff's Response to Written Comments on draft OEB Staff Report

As with the first round of comments, some of the stakeholders reiterated their concerns about reviewing the natural gas supply plans in a policy forum, rather than an adjudicative process and the lack of clarity around processes to review costs. However, as noted by OEB staff in the draft OEB Staff Report, these comments were already considered by the OEB when it developed the Gas Supply Framework. Furthermore, OEB staff believes that Enbridge's Plan establishes the baseline or starting point and as such this review process is a prospective examination of any potential new or incremental supply, transportation and storage options compared against Enbridge's current portfolio (i.e., the supply, transportation and storage options already included in the Plan) and other identified strategies. This review is, by necessity, prospective as the existing cost consequences of the gas supply plans were reviewed by the OEB in recent proceedings.[32] The Annual Updates including the scorecard will ensure on-going monitoring over the Plan term.

Many of the other comments including the integration of Enbridge's gas supply plans (and demand forecasts) across its rate zones, the options analysis and option selection, the review of NGEIR and STAR, the performance measures and the rate assistance to low-income Indigenous communities were addressed in the draft OEB Staff Report. OEB staff believes that its initial assessment of Enbridge's Plan on these matters, as outlined in section 5 of the draft OEB Staff Report, remains appropriate and does not need to be modified for the final OEB Staff Report. In addition, in the draft OEB Staff Report, OEB staff supported SEC's suggestion for a third-party assessment of Enbridge's blind RFP process for storage and FRPO's suggestions to improve the stakeholdering process. These suggestions are included in section 5.

OEB staff also believes that LMPA's request for additional information can be accommodated in the 2020 Annual Update process. Further, OEB staff believes that

[32] EB-2015-0180 and EB-2017-0086.

FRPO's request for Enbridge to outline the steps on how it plans to address the different interruptible policies in each of the rate zone can also be accommodated when Enbridge provides its status update on its gas supply integration plan as part of the Annual Updates.

However, with respect to ED's comments, OEB staff believes that its initial assessment needs to be revised to address the following:

- Recommend that Enbridge modify its evaluation matrix to highlight when a gas supply plan option necessitates an infrastructure investment. This investment should be identified and discussed in the Plan
- Recommend that Enbridge clearly identifies existing vs. proposed supply assets in the Plan

These revisions are further discussed in section 5.

5 OEB Staff's Assessment of the Plan

Overview

OEB staff is of the view that Enbridge provided the information (i.e., the framework criteria) necessary to evaluate whether the Plan meets the OEB's guiding principles and whether it delivers value to customers.

The Plan includes a description of how the framework criteria have been met (e.g., for each of the criteria, Enbridge includes supporting documentation that demonstrates how it has met the criteria). The Plan outlines Enbridge's approach to risk mitigation. Specifically, the options analysis in the Plan provides a description of the process of identifying and mitigating risk to customers by providing an assessment of the risk/cost trade-offs related to Enbridge's gas commodity, transportation and storage portfolios.

OEB staff is of the view that overall the Plan successfully balances the three OEB guiding principles of: i) cost effectiveness, ii) reliability and security of supply and iii) public policy in a way that is prudent and delivers value to customers. The Plan uses an evaluation matrix consisting of five categories – reliability, flexibility, diversity, cost and customer impact – to evaluate and select options for each rate zone. This matrix reflects two of the OEB's guiding principles – cost effectiveness, and reliability and security of supply. The Plan provides a description of how the selected strategy compares with the other identified strategies. OEB staff however shares some of the concerns that were identified with respect to when a gas supply plan option necessitates an infrastructure investment which is discussed later in this section.

The Plan also identifies three areas – RNG, community expansion and the federal carbon pricing program – where Enbridge will continue to be responsive to the OEB's third guiding principle (public policy).

In addition, OEB staff recommends modifications to Enbridge's blind RFP process for storage and several areas where more supporting information is needed. These recommendations are discussed later in this section. OEB staff notes that Enbridge has agreed to file additional supporting information as identified in the draft OEB Staff Report, starting in the 2020 Annual Update.

Demand Forecast Analysis and Gas Supply Integration

The OEB, in its Gas Supply Framework, stated that it expects the distributor to use its OEB-approved methodology when preparing its gas supply plan which includes its demand forecasts. Enbridge indicated that it did use OEB-approved methodologies and criteria to develop these forecasts. Therefore, OEB staff is of the view that the demand forecasts in the Plan are consistent with the Gas Supply Framework. OEB staff recommends that any changes to the methodology for annual demand and peak day forecasts should be addressed at the time of rebasing.

While OEB staff agrees with stakeholders that further integration may be desirable, OEB staff agrees with Enbridge that this process will take time to analyze and implement, where appropriate. OEB staff supports Enbridge's commitment to provide a detailed plan about the stages of integration in its Annual Updates. OEB staff recommends that Enbridge, in its 2020 Annual Update, discuss its progress in achieving its near term goals of combining its gas supply procurement policies, integrating its IT systems that support gas supply execution and reporting, and aligning its SENDOUT models.

OEB staff also recognizes that specific items that require changes to any OEB-approved methodologies cannot be addressed until rebasing. However, during the Plan term, OEB staff recommends that Enbridge start to examine whether continuing to have different methodologies and criteria that underpin its demand forecasts for each rate zone is appropriate.

OEB staff notes that Enbridge has different interruptible policies in each of the rate zones.[33] OEB staff recommends that the interruptible policies in each of the rate zones be addressed at the time of rebasing as there may be rate implications to any changes (e.g., updating penalty charges and assumptions related to interruptible load in meeting design day demand forecasts). However, Enbridge should discuss its progress on addressing the different interruptible policies when it outlines its gas supply integration plan in the Annual Updates.

[33] In Union's rate zones, it is assumed that 100% of the interruptible customers are shut off while in the EGD rate zone it is assumed to be 75%.

Options Analysis and Commodity, Transportation and Storage Portfolios

As per the Gas Supply Framework, OEB staff believes that the Plan supports Enbridge's strategies to meet both design day demand and annual day demand. The Plan outlines Enbridge's strategies and decision-making process (using its evaluation matrix) and provides analytical support for Enbridge's preferred strategies to meet these demands. However, OEB staff recommends that Enbridge's evaluation matrix be expanded to identify and describe any infrastructure investments (in whole or in part) that may result from each of the proposed options that are being evaluated. It is OEB staff's expectation that the expanded evaluation matrix would be used starting in Enbridge's 2020 Annual Update. OEB staff also recommends that Enbridge clearly identify existing vs. proposed supply options starting in its 2020 Annual Update.

OEB staff notes that it was difficult to compare the gas supply plans in each of the rate zones. Therefore, OEB staff recommends a few summary tables highlighting similarities or differences across the rate zones to allow for easier comparisons. The summary tables should include the expiration of transport contracts (showing whether transportation contracts are for short haul vs. long haul firm transportation services), a discussion of which rate zones use similar paths and a comparison of supply sources for the rates zones. OEB staff also recommends that these summary tables be included in the Annual Updates and until such time that the gas supply plans remain distinct for the EGD and Union rate zones.

Even though OEB staff is of the view that Enbridge's Plan is consistent with the expectations set out in the Gas Supply Framework, OEB staff confirms that any required infrastructure projects identified in a gas supply plan should not be exempted or otherwise considered pre-approved with respect to any separate required OEB approvals (e.g., leave to construct and/or rate approvals).

Commodity Portfolio

The gas commodity portfolios for the EGD and Union rate zones reflect a diversity of supply as they include gas sourced from several production regions including Western Canada, Appalachia, and the U.S. Mid-Continent in addition to purchases at Chicago and Dawn, two liquid market hubs that receive gas from Western Canada, the U.S. Midwest, Appalachia, the Gulf Coast and the U.S. Rockies. As a reflection of the diversity of supply, no single source provides more than about 30% of supply to EGD or Union rate zones. In addition, natural gas supply contracts have different terms such as daily, monthly, seasonal, annual and multi-year contracts and are executed at different times throughout the year.

As per the draft OEB Staff Report, OEB staff, at this time, has not identified any concerns with Enbridge sourcing more supply from Dawn compared to Niagara-Kirkwall. Enbridge stated that Niagara-Kirkwall was not a preferred strategy due to the limited number of suppliers and the lack of liquidity at Niagara.

The Plan states that Enbridge purchases gas for the EGD and Union rate zones from suppliers under a North American Energy Standards Board (NAESB) contract and that Enbridge holds NAESB contracts with over 100 suppliers to be used for supply procurement.[34] As identified in the draft OEB Staff Report, the Plan should demonstrate the level of concentration of counterparties by supply basin. Therefore, OEB staff recommends that a table showing projected purchases (GJ/d) over the term of the Plan by supply basin and counterparty (counterparty name can be kept confidential would be one way to provide this information) should be included in the Annual Updates (and for as long as the gas supply plans remain distinct for the EGD and Union rate zones).

Transportation Portfolio

The transportation portfolios for the EGD and Union rate zones also reflect a significant diversity of pathways (and providers) as well as a balance across terms and contract types (e.g., short-haul vs. long-haul transportation services). More than 50% of the transportation contracts that serve the Union rate zones are contracted beyond 2030. This supports reliability and security of supply. OEB staff notes that Enbridge has taken steps to reduce its reliance on Western Canadian supply delivered via TCPL by sourcing greater supply at Dawn and converting to short-haul transportation (from long-haul transportation services). In addition, Enbridge has further diversified its portfolio by contracting for NEXUS capacity to source supply from the Appalachian basin. OEB staff is of the view that the transportation contracts reflect a diversity of pathways, access and contract terms.

As per the draft OEB Staff Report, OEB staff is of the view that Enbridge's proposal to limit its level of discretionary service[35] in the EGD rate zone to two percent of total deliveries is appropriate at this time. This approach would mitigate any transportation interruption risks and may also result in greater flexibility (because Enbridge's firm transportation portfolio and the associated balancing provisions may provide greater flexibility over third-party owned firm transportation).

[34] EB-2019-0137 Enbridge's 5-year Gas Supply Plan, pp. 64 and 102.
[35] Discretionary service is typically short-term market based solutions such as peaking supply.

Storage Portfolio

Enbridge developed its storage portfolio in accordance with methodologies approved by the OEB in the NGEIR decision and confirmed by the OEB in its Decision and Order regarding the amalgamation of EGD and Union. Also, Enbridge's market-based storage additions in the EGD rate zone have already been approved by the OEB.[36]

Risk Mitigation Analysis

As per the Gas Supply Framework, Enbridge provided a description of its risk management process. It identified five types of risk (annual demand variation, design day variation, pricing variation, supply interruption and transportation interruption) and how it intends to mitigate these risks.

In terms of annual demand and design day variations, OEB staff is of the view that Enbridge's natural gas procurement policies provide the necessary flexibility to respond to changing market and weather conditions. Enbridge procures gas on various terms, including annual, seasonal, monthly, and daily which provides a layering approach to its gas supply purchases. Also, price volatility is mitigated by procuring from multiple supply basins and market hubs, and staggering terms and timing of its gas supply purchases.

In terms of supply and transportation risks, OEB staff is of the view that Enbridge's risk mitigation strategies reflect industry practices such as: i) contracting with creditworthy suppliers, ii) holding firm transportation service rather than interruptible service and iii) holding capacity with multiple upstream service providers which are connected to liquid supply hubs. Also, connectivity to liquid supply hubs affords Enbridge the opportunity to contract for short-term service on alternative pipelines, if and when the need arises to manage short-term risks and interruptions to planned supply activities.

OEB staff notes that the assessment of the risk/cost trade-offs is not contained within the risk mitigation sections of the Plan. However, the Plan does provide a description of the process of identifying and mitigating risk to the customer by providing a thorough assessment of the risk/cost trade-offs in the sections related to gas commodity, transportation and storage portfolio options analysis.

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[36] EB-2017-0086.

Performance Measurement

Enbridge has identified the performance metrics that it proposes to use to monitor the Plan. Over twenty measures are identified (which are primarily quantifiable) across a range of performance categories that reflect the OEB's guiding principles alongside the intent of the measure. Enbridge's annual scorecard reflects its proposed performance measures. Enbridge also stated that the performance metrics may evolve over time given experience.[37]

OEB staff is of the view that Enbridge's proposed performance measures and the annual scorecard (which will include the results of Enbridge's performance metrics) are consistent with the Gas Supply Framework.

OEB staff is of the view that DSM activities and targets will be examined as part of the OEB's post-2020 DSM Framework[38] and therefore should not be included in the annual scorecards at this time.

Public Policy

As per the Gas Supply Framework, Enbridge is to identify and demonstrate that its Plan supports public policy. The OEB, in the Gas Supply Framework, also stated that these public policy initiatives are to be those that are in effect rather than proposed public policy initiatives.

Enbridge, in its Plan, identified three areas: RNG, community expansion and federal carbon pricing program. Also, Enbridge stated that it will include the impacts of Distributed Energy Resources (DER) and community expansion into the Plan when they are known.

OEB staff is of the view that the Plan is responsive to public policy as per the Gas Supply Framework. As discussed previously, DSM is to be examined as part of the OEB's post-2020 DSM Framework. Also, at the time of publication of the final OEB Staff Report, there is an application[39] before the OEB where the OEB will be examining a

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[37] TR: Stakeholder Conference, September 24, 2019, p. 102.
[38] EB-2019-0003. In a letter dated September 16, 2019, the OEB stated that it will be establishing a new framework where it will include consideration of the objectives to be achieved by DSM activities, cost recovery, program mix and how utility performance should be incentivized and measured.
[39] EB-2019-0159.

proposed IRP framework. Additionally, Enbridge indicated its commitment to working with the provincial and federal governments to offer services that will support government policies and objectives.

OEB staff recommends that this consultation process is not the appropriate venue to address rate assistance to low-income Indigenous customers. OEB staff is of the view that this issue goes beyond the scope of a gas supply plan review. However, OEB staff notes that the OEB has received a letter from the Minister of Energy, Northern Development and Mines to examine and report back to the Ministry of Energy, Northern Development and Mines with information on potential projects to expand access to natural gas distribution to communities for projects that would otherwise be considered uneconomic under existing OEB policies.

Blind RFP Process for Storage

As discussed previously, the EGD rate zone does not have enough storage space to meet its in-franchise requirements and therefore Enbridge purchases storage in the marketplace. A blind RFP process is used for these purchases because Enbridge and its affiliates own and operate a significant amount of non-utility storage facilities in Ontario.

Enbridge has retained Deloitte to administer its RFP process. Deloitte anonymizes the proposals and then gives Enbridge its top ranked proposal. However, to decide on whether the top ranked proposal should be the winning proposal, Enbridge typically requires additional information from Deloitte. It became apparent at the stakeholder conference that due to the nature of these follow up questions, in some cases, Enbridge appears to be able to determine the identity of the bidder.[40]

OEB staff has the following concerns:

- The process is not entirely “blind” and therefore, the process does not effectively ring fence Enbridge’s gas supply procurement group (who are making the decision to purchase market-based storage) from its own non-utility storage in the Union South rate zone and its affiliates in Ontario.
- The process as currently designed does not eliminate concerns of possible bias.

[40] TR: Stakeholder Conference, September 24, 2019, pp. 14-15 and pp. 30-33.

As per the draft OEB Staff Report, OEB staff supports Enbridge undertaking a third-party independent expert assessment of its blind RFP process, by a party that has natural gas experience. However, regardless of the outcome of a third-party assessment, OEB staff recommends that Enbridge refine its process so that follow-up requests with the RFP Manager are eliminated. One way to do this is to retain an RFP Manager that has natural gas expertise and the RFP Manager provides Enbridge with the winning storage proposal only. This will eliminate any concerns of bias. OEB staff recommends that Enbridge, in its 2020 Annual Update, report on its progress to refine the current blind RFP process.

Ontario Gas Producers

While OEB staff is not persuaded that all of the issues raised by OPI are within the OEB's mandate, OEB staff, nonetheless, is of the view that additional information is needed to fully understand and consider the concerns raised by OPI and Enbridge.

OEB staff recommends that meetings be held (facilitated by OEB staff) in 2020 with the Ontario gas producers and Enbridge.

NGEIR and STAR

OEB staff notes that in the OEB's Decision and Order regarding the amalgamation of EGD and Union, the OEB stated that Enbridge is "required to file a proposal, with its rate harmonization plan [discussed in Section 5] for the ongoing approach to the use of excess natural gas storage from the legacy Union Gas service territory to meet the storage needs of the legacy Enbridge Gas in-franchise customers".[41] This information is to be filed at the time of rebasing. As a result, OEB staff recommends that no action is required at this time with respect to the OEB's storage allocation policies.

The OEB, in the NGEIR decision, determined that the storage market is larger than Ontario. Specifically, the OEB found that the geographic market includes Michigan, New York and other states in the United States.[42] This means that a market participant that wishes to purchase storage services can purchase from Enbridge and its affiliates in Ontario or in the larger competitive storage market identified by the OEB. OEB staff notes that there appears to be evidence in the EGD and Union amalgamation

[41] EB-2017-0306 / 0307, p. 51.
[42] EB-2005-0551, pp. 38-39.

proceeding that the merger of EGD's and Union's storage operations would have little impact on the concentration of storage services. Specifically, Enbridge would hold only 13.1% of the storage capacity in the geographic market as defined by the OEB.[43] Therefore, OEB staff, at this time, is not convinced that the merger of EGD and Union has negatively impacted the competitive storage market as defined by the OEB. Consequently, OEB staff recommends that at this time it is not necessary to review NGEIR with respect to this particular issue.

The OEB's STAR has detailed reporting requirements to support a transparent storage market and transportation market. For example, Enbridge is required to post on its website an Index of Customers for its transportation and storage transactions which includes customer name, quantity (GJ), receipt/delivery point, start date, expiry date and whether the transaction is with an affiliate. STAR also requires Enbridge to post its actual available transportation capacity on its website (https://www.uniongas.com/storage-and-transportation/informational-postings/operational-available-transport-capacity). This reporting requirement allows market participants to identify potential instances of capacity withholding, and helps to reveal operational constraints that will affect supply and pricing. At this time, no capacity withholding has been reported to the OEB. Therefore, OEB staff recommends that at this time it is not necessary to review STAR.

Process Improvements

OEB staff will endeavour to ensure that there is more time between the written questions and any stakeholder conference so that Enbridge can prepare and distribute its presentation in advance of any stakeholder conference.

[43] EB-2017-0306 / EB-2017-0307 ICF's report, Analysis of Merchant Natural Gas Storage Competition in Ontario, dated January 30, 2017. Spectra Energy Corporation held 11% of the storage in the relevant geographic market before the merger.

Appendix A: List of Participants

Below is the list of participants in this consultation:

- Ag Energy Co-operative Ltd.
- Anwaatin Inc.
- Building Owners and Managers Association, Greater Toronto
- Budd Energy Inc.
- Canadian Manufactures & Exporters
- City of Kitchener – Utilities Division
- Consumers Council of Canada
- Corporation of the Town of Marathon
- Energy Probe Research Foundation
- Environmental Defence
- EPCOR Natural Gas Limited Partnership
- Equinor Natural Gas LLC
- Federation of Rental-housing Providers of Ontario
- Industrial Gas Users Association
- London Property Management Association
- Ontario Petroleum Institute Inc.
- Pollution Probe
- School Energy Coalition
- Six Nations Natural Gas Co.
- TransCanada PipeLines Limited
- Vulnerable Energy Consumers Coalition

Appendix B: Written Comments on the Plan

The consultation provided stakeholders and Enbridge several opportunities to submit written comments. For the first round of comments, stakeholders were provided an opportunity to submit written comments on Enbridge's Plan. Enbridge was given the opportunity to review stakeholders' written comments and decide whether to: (i) provide written comments in response, and/or (ii) revise its Plan and provide a revision statement that outlines any changes, together with the rationale for those changes

Below is a summary of the key issues raised by stakeholders on Enbridge's Plan and Enbridge's response to these comments. Enbridge stated that no changes to the Plan were required. This is only meant to be a high level summary; and for more details readers are directed to the filed comments which are posted on the OEB's website.

Overview

On October, 21, 2019, thirteen stakeholders[44] submitted written comments on Enbridge's Plan. Many of the written comments focused on the consultation process and the integration of Enbridge's gas supply plans across its rate zones. FRPO and Equinor voiced concerns over Enbridge's options analysis and the selected options that were included in the Plan.

BOMA, LPMA and VECC stated that they were generally supportive of the Plan. BOMA further stated that Enbridge made a good effort at balancing the OEB's three guiding principles.

On November 18, 2019, Enbridge responded to the written comments and indicated that no changes to the Plan were required.

[44] Anwaatin Inc. (Anwaatin); Building Owners and Managers Association, Greater Toronto (BOMA); Canadian Manufactures & Exporters (CME); Energy Probe Research Foundation (Energy Probe); Environmental Defence (ED); Equinor Natural Gas LLC (Equinor); Federation of Rental-housing Providers of Ontario (FRPO); London Property Management Association (LPMA); Ontario Petroleum Institute Inc. (OPI); Pollution Probe; School Energy Coalition (SEC); Six Nations Natural Gas Co. (Six Nations Gas); and Vulnerable Energy Consumers Coalition (VECC).

Consultation Process

SEC and FRPO voiced concerns about examining Enbridge's Plan in a consultative process as opposed to an adjudicative process. CME stated that the consultation process needs to be refined to ensure that the cost consequences of the gas supply plan are subject to a rigorous review. Energy Probe stated that the consultation process did not allow for discovery (e.g., detailed data on actual and forecast demand and additional scenario analysis to test methodologies). In addition, FRPO and Six Nations stated that the process did not allow for an examination of the supply and transportation options already included in the Plan, only new options and/or expiring contracts were examined.

Enbridge supported the OEB's process and stated that the foundation of the OEB's process, namely the use of a stakeholder consultation rather than an adjudicative approach, is appropriate. Enbridge indicated that the stakeholder consultation takes into account the dynamic nature of gas supply planning and the challenges inherent to regulating such activities on a granular and prospective basis.

Demand Forecasts and Gas Supply Integration

Many stakeholders (BOMA, CME, Energy Probe, FRPO, LPMA, SEC and VECC) commented on the importance of Enbridge integrating its gas supply plans across its rate zones. Some of these stakeholders also provided specific projects that Enbridge should prioritize when integrating its gas supply plans:

- Need to update and determine whether different methodologies for load forecasting and peak day forecasts including Normalized Average Use per Customer (NAC) models should continue
- Need to conduct high level review of contracts to allow for rationalization
- Need to integrate the SENDOUT models
- Need to examine the different interruptible policies in each of the rate zones and consider moving to the Union rate zones' policy

Enbridge indicated that it used OEB-approved methodologies and criteria to develop its demand forecasts. Also, Enbridge acknowledged that it is only at the beginning of its integration of the gas supply function and that to fully integrate gas supply across rate zones will take time. Enbridge outlined its near term goals including a combined gas supply procurement policy, integration of IT systems that support gas supply execution and reporting, and to align the SENDOUT models. Enbridge stated that it intends to provide a more detailed plan about the stages of integration as part of the first Annual Update.

Options Analysis

FRPO and Equinor did not support Enbridge's analysis on certain options included in the Plan. In particular, Equinor stated that Enbridge did not properly address delivered service supply in the Plan (i.e., the Plan does not provide any analysis on the reliability, diversity and flexibility of delivered service to conclude that delivered service is not a viable alternative for long term gas supply needs). FRPO stated that in order to manage variability in seasonal demand, Enbridge should be buying planned winter purchases at Dawn instead of increasing storage space in the EGD rate zone. Also, FRPO suggested that Enbridge should evaluate system benefits of selective geographic contracting of gas delivery such as Niagara to Kirkwall.

Enbridge did not agree with the premise of Equinor's written comments on delivered service. Enbridge stated that it evaluated delivered service as a supply option and noted that delivered service is to be used to meet a portion of the design day requirements for the EGD rate zone. Enbridge commented that there has not been a need for this service on a year-round basis because there is already sufficient supply into the delivery areas in the summer. Enbridge further commented that delivered service is less reliable than supply underpinned by firm transportation held by Enbridge itself and that this is an important consideration when evaluating delivered service to meet design day delivery requirements.

Enbridge also did not support FRPO's premise that Enbridge is increasing its storage space in the EGD rate zone instead of buying at Dawn. Enbridge indicated that it has not increased its storage space as the amount forecast for 2020 is the same as the OEB approved[45] in its 2018 rate application. Also, with respect to Niagara to Kirkwall capacity, Enbridge stated that this option was evaluated and Enbridge concluded that Niagara supply was not a viable option.[46]

[45] EB-2017-0086, Ex D1, T2, S9, p. 2 and Ex D1, T2, S11, p. 13.
[46] TR: Stakeholder Conference, September 23, 2019, p. 136 and pp. 157-159.

Blind RFP Process for Storage

CME and SEC raised concerns about Enbridge's blind RFP process to purchase market-based storage for the EGD rate zone. These stakeholders commented that it became clear at the stakeholder conference that Enbridge is able to discern information regarding the proposals and the bidders and therefore, the process is not entirely blind. FRPO proposed that the blind RFP process should be refined if is to be an effective tool in demonstrating independence while ensuring valuable information that is crucial for decision-making is available to Enbridge. SEC suggested that Enbridge should be required to undertake a third-party independent expert assessment of its blind RFP process, by someone who has natural gas experience.

Enbridge stated that the process it has implemented is appropriate and effective. Enbridge also stated that this process strikes an appropriate balance between gathering sufficient information to support making cost-effective decisions and protecting the information of bidders, to avoid concerns of bias.

NGEIR and Storage and Transportation Access Rule

FRPO, Energy Probe and VECC indicated that with the merger of Union and EGD it is time to review the OEB's NGEIR [47] policies. Energy Probe suggested that the OEB's storage allocation policies should be reviewed. FRPO stated that the lack of third-party storage developers in Ontario suggests that NGEIR should be re-examined to address current market realities. FRPO also suggested that the OEB's Storage and Transportation Access Rule (STAR) should be reviewed in light of the merger.

Enbridge commented that had the OEB wished for Enbridge to address items related to the NGEIR Decision or STAR during the deferred rebasing term, then the OEB's decision regarding the amalgamation of EGD and Union[48] would have indicated that.

[47] EB-2005-0551 OEB's Decision on the Natural Gas Electricity Interface Review (NGEIR) dated November 7, 2006.
[48] EB-2017-0306 / 0307.

Public Policy

ED commented that treating demand side management (DSM) as an input into the demand forecast does not support the public policy of achieving all cost-effective DSM. ED suggested that an integrated resource planning (IRP) approach would ensure that the lowest cost solutions are selected.

Pollution Probe suggested that Enbridge look at opportunities to better integrate policy considerations into the plan starting with Distributed Energy Resources (DER), community energy planning, IRP, increased DSM and provincial air quality and climate change.

Anwaatin commented that there is a need to address energy poverty in First Nations communities and noted that the majority of First Nations in Ontario do not have access to natural gas. Therefore, Anwaatin proposed that the Plan be amended to:

- Facilitate measures that: i) improve adequacy of supply to Indigenous communities through community expansion initiatives including Bill 32 and ii) increase the quantity of renewable natural gas (RNG) in Enbridge's gas commodity portfolio.
- Include a mechanism (coordinated directly by Enbridge) for natural gas rate assistance for all low-income Indigenous customers.

In terms of demand forecasting and supply planning, Enbridge indicated that these processes are separate and distinct. Further, the demand forecasts are used for a number of purposes such as capital and long-term strategic planning. Enbridge also indicated that it used the OEB's approved methodologies to develop its demand forecasts which includes the impact of DSM. When the impacts of IRP, DER and community energy planning are known, Enbridge stated that these impacts will also be reflected in the demand forecasts.

With respect to Enbridge providing rate assistance to low-income Indigenous customers, Enbridge stated that the Plan and this review process are not the appropriate venues to address these matters. Also, as per the provincial government's direction, Enbridge has implemented a voluntary RNG option.

Performance Measurement

ED and Pollution Probe proposed additional performance measures to be included in Enbridge's annual scorecard such as:

- Actual targets in Ontario's Made-in-Ontario Environment Plan (e.g., progress in meeting the reduction of 3.24 Mt CO_2e by 2030 and fuel switching)
- Report on whether previous infrastructure projects (over a specific threshold that would be determined at a later date) met their expected benefits
- Number of improvements to the Plan identified through stakeholder consultation and cubic meter increase in DSM results due to the Plan improvements
- Percentage of municipalities in Enbridge's franchise area with community energy plans
- Cubic meter decrease in gas supply due to IRP activities (including DSM)
- Percentage of actual degree days vs. forecast (as this would reflect accuracy of model to accommodate changing climate data)
- Efficiencies from integrating gas supply activities and policies

Enbridge stated that the performance metrics should focus on the execution of the Plan and demonstration of the Plan's adaptability. Since gas supply costs are treated as a direct pass-through to customers, Enbridge indicated that it does not expect that the performance measures would be applied in any way that may financially reward or penalize the distributor for its gas supply activities.

Enbridge also stated that the items related to DSM, community energy plans and IRP proposed by Pollution Probe are out of scope from what the Plan seeks to accomplish.

Enbridge also stated that the scorecard already includes appropriate reporting about the variance between forecast and actual degree days. Enbridge noted that there could be reporting on the number of changes to the Plan that result from the stakeholder consultation process, but it is not clear what would be measured by that reporting since the number of changes does not necessarily reflect or measure the appropriateness of the Plan.

Enbridge commented that the setting of DSM targets should be part of the OEB's post 2020 DSM Framework. Also, the infrastructure items noted by ED (updating assessment of benefits from prior projects and identifying additional facilities resulting from the Plan) are outside the scope of this process. If these items are to be addressed at all, it would be in the context of facilities approval proceedings.

Ontario Natural Gas Producers

OPI stated that most of the Ontario natural gas producers are located in Union South rate zone where producers can sell directly to Enbridge through a standard Gas Purchase Agreement (GPA) at a Dawn Index Price[49] or sell their gas at Dawn using Enbridge's M13 transportation contract[50].

OPI stated that gas producers are captive to their geographic locations and have little ability to negotiate prices and terms of service due to Enbridge's market dominance. As such, producers have been paid below market prices for gas delivered into the Union South rate zone and suggested that they should be paid the Total Gas Supply Commodity Charge, which is equal to what Enbridge charges its system supply customers for gas commodity.

OPI also noted that the compensation for gas producers in the EGD and Union rate zones are different as the EGD rate zone does not charge gas producers for transportation, balancing or station costs. OPI suggested that since gas producers deliver gas downstream of the infrastructure assets in the Union South rate zone, they should not be subjected to these charges (as Enbridge avoids the cost of transportation and balancing).

In addition, gas producers want some form of priority access (with fair and transparent connection costs) when requesting to deliver gas into the Enbridge system.

Enbridge stated that it believes OPI wants the OEB to intervene in commercial commodity purchase agreements which are not subject to OEB approval, alterations to distribution rates within the deferred rebasing period, and changes to its operations such as priority system access.

Enbridge indicated that the Dawn Index (in the GPA) is a market price and that the Total Gas Commodity Charge which the gas producers want to be paid does not reflect the market price at a specific time in a specific geographic location. The Total Gas Commodity Charge is a QRAM regulatory construct meant to recover the actual pass-through costs of gas and as such it is a blend of past, present and future prices.

[49] Dawn Index Price is calculated using a 28-day forward strip for the upcoming month.
[50] M13 service provides Ontario natural gas producers with a means to get their gas to Enbridge' Dawn Hub where the gas can be sold to any number of market participants.

Enbridge disagreed with OPI that gas producers should receive an avoided cost premium because they deliver downstream of Enbridge's assets. Enbridge indicated that the matter was contested by Energy Objective[51] in relation to the M13 balancing fee and the OEB determined that the gas producers are to pay these balancing fees. Enbridge also indicated that nothing has changed since this decision. Enbridge further stated that there are no savings associated with the downstream nature of producers' gas. However, there are costs as local producers are not required to nominate their volumes for entry into its system. Also, Enbridge indicated that cost of meter stations was fair and transparent.

Process Improvements

FRPO suggested some process improvements for the next stakeholder conference such as expanding the timelines between written questions and the stakeholder conference. This will allow Enbridge to provide stakeholders with its presentation and talking points in advance of the stakeholder conference to ensure a more meaningful and interactive discussion.

[51] RP-2003-0063/EB-2003-0087/0097, Decision with Reasons dated March 18, 2004.