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Enbridge Gas Inc.
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Canada

VIA EMAIL and RESS

October 3, 2023

Nancy Marconi
Registrar
Ontario Energy Board
2300 Yonge Street, Suite 2700
Toronto, Ontario, M4P 1E4

Dear Nancy Marconi:

Re: Enbridge Gas Inc. ("Enbridge Gas" or the "Company")
Ontario Energy Board ("OEB") File No. EB-2022-0157
Panhandle Regional Expansion Project ("Project")
Interrogatory Responses

Consistent with the OEB's Procedural Order No. 7, enclosed please find Enbridge Gas's interrogatory responses.

In accordance with the OEB's *Practice Direction on Confidential Filings*, Enbridge Gas has redacted confidential information from the following exhibits. Details of the specific information and reasons for confidential treatment are set out below:

Exhibit	Confidential Information Location	Presumed Confidential	Basis for Claim	Rationale
Exhibit I.STAFF.25, Attachment 1	Attachment 1	No	Disclosure could prejudice the competitive positions of third parties.	The information consists of the names of customers to which specific comments are attributed regarding customer specific CIAC's for transmission assets. The customers provided the comments without expecting their comments would become publicly attributed to them. Moreover, disclosure of their individual views on CIAC's is competitively sensitive as a number of the listed customers are competitors and the comments relate to their views on investment decisions.
Exhibit I.ED.26	Part (b), page 3 of 4	Yes	Information disclosing demand forecast for specific customer Commercially sensitive information, disclosure	This information consists of customer-specific, commercially sensitive, third-party information that reveals the nature and timing of third-party investment decisions. More particularly, the

Exhibit	Confidential Information Location	Presumed Confidential	Basis for Claim	Rationale
			of which would prejudice the competitive position of a third party Information is of a type previously held to be confidential by the OEB	information concerns the timing and volume of incremental demand attributable to an individual customer, NextStar Energy. As further explained in the interrogatory response, additional information requires redaction to prevent the ability to back-calculate the information regarding the individual customer. The OEB considered and approved the confidential treatment of equivalent information in its December 1, 2022 decision on a motion by the Company in the current proceeding.
Exhibit I.PP.32, Attachment 1	Pages 2-4, 6-8 of 8	Yes (in part)	Information discloses energy usage of a specific customer. Commercially sensitive information, including of a financial and commercial nature, consistently treated by the Company and the third-party confidentially, the disclosure of which would prejudice the competitive position of the third party.	The information consists of the non-standard elements of the contract with the specific customer.
Exhibit I.PP.36, Attachment 1	Page 4 of 6	Yes	The redactions relate to information that is commercially sensitive and considered to be Presumptively Confidential. Enbridge Gas has consistently treated this type of information as confidential. Disclosure of this information could prejudice competitive positions and/or interfere with ongoing or future negotiations.	The information consists of Posterity Group's pricing information to perform services requested by Enbridge Gas for the Project.

Unredacted, confidential copies of the interrogatory responses will be sent separately via email to the OEB.

Consistent with the Practice Direction, it is the Company's expectation that access to confidential information in this proceeding will only be available to representatives of parties that file Declarations and Undertakings in the prescribed form.

Also, please note an Excel version of the following exhibits have been included with this submission.

- Exhibit I.SEC.6, Attachment 1
- Exhibit I.SEC.6, Attachment 2
- Exhibit I.SEC.6, Attachment 3
- Exhibit I.SEC.6, Attachment 4

The above noted submission has been filed electronically through the OEB's RESS and will be made available on Enbridge Gas's website.

If you have any questions, please contact the undersigned.

Sincerely,

Haris Ginis
Technical Manager, Leave to Construct Applications

c.c. Charles Keizer (Torys)
Tania Persad (Enbridge Gas Counsel)
Zora Crnojacki (OEB Staff)
Intervenors (EB-2022-0157)

ENBRIDGE GAS INC.

Answer to Interrogatory from
Association of Power Producers of Ontario (APPrO)

INTERROGATORY

Reference:

Exhibit A, Tab 4, Schedule 1, Page 5

Preamble:

Enbridge's current position regarding the Contributions in Aid of Construction (CIAC) is that it is not appropriate to require a CIAC from specific customers for the proposed project.

Question(s):

Is Enbridge aware of any customers that would be impacted by the change in OEB policy to include a CIAC for future transmission projects, but are not part of this proceeding?

Response:

Enbridge Gas does not have information regarding the impact a requirement of CIAC for future transmission projects would have on specific customers. However, the Company submits that all existing and prospective customers and provincial and municipal economic development groups seeking to attract business to the province could be impacted.

A change to policy would very likely have a direct impact on capital investment and job creation throughout the province. Enbridge Gas has heard from customers that they plan their business decisions on the basis that the OEB will apply its rules, regulations and guidelines in a manner consistent with previous practices. All existing customers who contracted capacity related to previous transmission projects were not required to pay a CIAC for those projects. For existing customers who participated in the EOI seeking to expand their operations, a change to the OEB's rules in this regard will likely lead to those customers reconsidering their expansion plans. Additional consideration needs to be given to customers who would be held to a new CIAC requirement for transmission projects, which would create inequity relative to existing competitors who connected to the natural gas system under existing rules.

Enbridge Gas submits that adding a requirement of CIAC for transmission projects, in the best case, will lessen Ontario's competitive advantage as new industries (such as the electric vehicle battery/manufacturing industry) could consider locating their businesses in other jurisdictions which do not have CIAC requirements for transmission projects, and in the worst case, could impact the viability of natural gas-generation projects resulting in regional energy challenges.

Access to energy is essential for commercial and industrial customers seeking to invest in Ontario, as natural gas remains a critical source of energy for customers requiring increasing amounts of affordable energy. Enbridge Gas continues to receive requests for new/incremental firm natural gas service from customers not previously identified through the EOI.

ENBRIDGE GAS INC.

Answer to Interrogatory from
Association of Power Producers of Ontario (APPrO)

INTERROGATORY

Reference:

Exhibit A Tab 4 Schedule 1 Page 6 of 7; Exhibit E, Tab 1, Schedule 1, Pages 5, 17-19; Directive - Order in Council 586/2023

Preamble:

"Customers submitting EOI bids for new/incremental service were generally doing so under the assumption that the OEB would apply the established regulatory framework for transmission system expansion projects, which does not require CIAC […] No customer indicated that they would be willing to provide CIAC for a transmission system expansion project without understanding the magnitude of the CIAC and the unique justification for its selective application in this instance."

According to Ministerial Directive 586 / 2023, "Southwestern Ontario, especially the Windsor-Essex region is experiencing rapid growth in electricity demand from greenhouses as well as investments in the lithium-ion battery and automotive sectors. According to IESO, peak electricity demand in the Windsor-Essex and Chatham areas is forecast to grow from roughly 500 megawatts in 2022 to about 2,100 megawatts in 2035, equivalent to adding cities the size of Ottawa and London to the grid."

Question(s):

1.Enbridge Gas is forecasting continued demand growth from commercial, industrial, and residential customers located in the areas west of Dawn, with concentrations in the Municipalities of Windsor, Leamington, and Kingsville related to greenhouse, automotive and power generation.

a)Please describe what impacts may occur if the project is not approved or if the OEB does not apply the established regulatory framework for CIAC for transmission system projects noted in the preamble. Please discuss the economic, employment and tax revenue impacts on the local and provincial economies.

b)Did any Enbridge receive any feedback from potentially affected customer s regarding the same? If so, please describe what may happen to projects proposed by third parties (e.g., Stellantis) if the project is not approved or if the OEB does not

apply the established regulatory framework for CIAC for transmission system projects.

2.Please provide copies of Orders in Council 1348/2022 and 586/2023 from the Ontario Minister of Energy approved and ordered, respectively, on October 6, 2022 and April 27, 2023.

3.Given the potential that a number of gas-fired capacity additions may not be feasible if the project is not approved or a significant CIAC is requested, has Enbridge considered the following:

a)The reliability and cost impacts to the Ontario electricity system and electricity customers if the generation capacity the IESO has been directed by the Minister of Energy to procure, or is already contracted through its authorized planning and procurement processes, must be replaced?

b)How will this financial impact flow to electricity ratepayers and potentially impact the calculations underpinning the Stage 2 and 3 figures?

Response:

1. a) and b)

Please see the response at Exhibit I.APPrO.9 for potential impacts regarding a change in policy to require CIAC for transmission projects.

Please see the response at Exhibit I.STAFF.25, part c) for information regarding Project benefits that extend beyond EOI-identified customers.

The Project will directly support job growth, increase property tax revenue for the affected municipalities and increase tax revenue for the province. Furthermore, as indicated by various letters of support received by Enbridge Gas, the Project has broad support from regional municipalities as well as major customer groups. Several of the letters of support (Exhibit B, Tab 1, Schedule 1, Attachments 3 – 7) outline the importance of the Project for current and future growth within the area.

2. The Order in Council 1348/2022 can be found at the following link: https://www.ontario.ca/page/directive-order-council-13482022

   The Order in Council 586/2023 can be found at the following link: https://www.ontario.ca/page/directive-order-council-5862023

3. a) Enbridge Gas understands that replacing the generation capacity that the IESO has been directed by the Minister of Energy to procure will be significantly more expensive to meet the demand and reliability needs of the Panhandle region. Furthermore, it is not clear at this time what other generation technology has the ability to be deployed in the timeframe and scale required to respond to system needs. More specifically:[1]

> Ontario's natural gas generators can be turned on and ramped up quickly to ensure the province does not need to be reliant on emergency actions such as conservation appeals and rotating blackouts to stabilize the grid, according to the IESO.
>
> While during most hours throughout the year Ontario can meet its electricity generation needs with nuclear, hydroelectric, bioenergy, wind and solar power, natural gas generation also acts as the province's insurance policy that can be turned on if the wind is not blowing or sun is not shining, or another generator is offline for repairs. There is currently no like-for-like replacement for natural gas and the IESO has concluded it is needed to maintain system reliability until nuclear refurbishments are complete and new non-emitting technologies such as storage mature.

   b) Enbridge Gas expects that the financial impacts include impacts to electricity ratepayers through increased electricity rates. The reliability and cost impacts to the Ontario electricity system are not included in the natural gas Project's Stage 2 and Stage 3 calculations.

[1] https://www.ontario.ca/files/2023-07/energy-powering-ontarios-growth-report-en-2023-07-07.pdf, p. 49.

ENBRIDGE GAS INC.

Answer to Interrogatory from
Association of Power Producers of Ontario (APPrO)

INTERROGATORY

Reference:

Exhibit A, Tab 4. Schedule 1, Page 5

Preamble:

"Following the Application being placed into abeyance in December 2022 (at the Company's request), Enbridge Gas re-evaluated existing system capacity based on the impact of actual 2022 customer demands, updated forecast demands, updated SWAHV, and supply volumes on the Panhandle System. As a result of this assessment the Company found that:"

Question(s):

1. Please provide a detailed description of the SWAHV and other supply/demand changes that occurred between the original application for the project and the update that resulted in an additional 24 TJ/day of capacity on the Panhandle system.

2.Please describe future changes to supply/demand conditions that may result in additional capacity to be made available on the existing Panhandle system.

a)If Enbridge does not expect further changes to the capacity of the Panhandle system, please explain why.

Response:

1. The System-Wide Average Heating Value ("SWAHV") is the energy content of natural gas and is updated on an annual basis. From the time the initial application was filed in June 2022 to the time the amended application was filed in June 2023, the SWAHV changed from 0.00003932 TJ/m³ to 0.00003912 TJ/m³. This update resulted in a decrease in existing system capacity of 3.8 TJ/d.

   The existing system capacity increased by 27.1 TJ/d as a result of the updated hydraulic analysis which found that demand locations were in more hydraulically favourable locations than previously estimated.

The difference between the SWAHV decrease of 3.8 TJ/d and the demand location increase of 27.1 TJ/d is a net increase of 24 TJ/d. Please also see the response to Exhibit I.ED.26, part a).

2. As stated at Exhibit A, Tab 4, Schedule 1, p. 5, system capacity is based on the existing pipeline facilities, customer demand volumes and location, SWAHV, and supply volumes and location. System capacity will fluctuate as customer demand volumes and location and SWAHV are updated. However, the current capacity of the existing system is based on the best available information at this time and therefore no additional capacity is expected to be available to address the increasing demand forecasted for Winter 2024/2025.

ENBRIDGE GAS INC.

Answer to Interrogatory from
Association of Power Producers of Ontario (APPrO)

INTERROGATORY

Reference:

Exhibit D Tab 1 Schedule 1 Page 3 of 11; Exhibit A Tab 4 Schedule 1 Page 6 of 7

Preamble:

"The Project will commence at the existing Enbridge Gas Dover Transmission Station located 40 km southwest of the Dawn Hub at Balmoral Line and Town Line Road in Chatham-Kent, Ontario. The pipeline will loop the existing NPS 20 Panhandle Line, following existing easements where possible, for approximately 19 km to Richardson Sideroad in Lakeshore, Ontario where it will tie into the existing NPS 20 Panhandle Line at a new valve site station."

Question(s):

1.As a line loop, APPrO understands that all customers who receive service from the proposed project will use both the existing NPS 20 and new NPS 36 legs of the pipeline. Please confirm that all customers downstream of the project will utilize the project for the provision of gas delivery service, not just the customers submitting EOI bids for new/incremental service.

2.Please describe benefits existing customers will receive from the project (e.g., enhanced reliability, spreading OM&A costs over more customers / volumes, etc.).

Response:

1. Confirmed.

2. Please see the response at Exhibit.I.STAFF.25, part c).

ENBRIDGE GAS INC.

Answer to Interrogatory from
Association of Power Producers of Ontario (APPrO)

INTERROGATORY

Reference:

Exhibit B Tab 2 Schedule 1 Page 15 of 16

Preamble:

Paragraph 33 refers to “Attachment 1”, which is a Winter 2024/2025 Panhandle System schematic showing the network analysis for the Panhandle System assuming no reinforcements are completed.

Question(s):

Please provide Attachment 1.

Response:

The attachment referenced within the interrogatory is included within the pre-filed evidence at Exhibit B, Tab 2, Schedule 1, Attachment 1 (updated June 16, 2023).

ENBRIDGE GAS INC.

Answer to Interrogatory from
Environmental Defence (ED)

INTERROGATORY

Reference:

Updated evidence

Question(s):

(a) Please provide updated responses to Exhibit JT2.3 and Exhibit JT2.7 or explain why they are not relevant.

Response:

Please see the responses at Exhibit JT2.3 (updated October 3, 2023) and Exhibit JT2.7 (updated October 3, 2023).

ENBRIDGE GAS INC.

Answer to Interrogatory from
Environmental Defence (ED)

INTERROGATORY

Reference:

Exhibit E, Tab 1, Schedule 6, Page 1 of 1

Question(s):

(a) The updated evidence changed the cost per tonne for carbon for 2031 and beyond from $170 to $0 in Schedule 6. Please explain this change.

(b) Please provide an update to Schedule 6 and all interrogatories and undertaking response based on Schedule 6 with the previous carbon price assumption of $170 per tonne for 2031 and beyond

Response:

a) This is a typographical error in Exhibit E, Tab 1, Schedule 6 which only impacts the figure displayed in this Schedule and does not impact the underlying calculations. The cost per tonne for carbon used in the underlying calculations for Enbridge Gas's Stage 2 analysis for 2031 and beyond is $170, not $0.

b) Please see Attachment 1 for a corrected version of Exhibit E, Tab 1, Schedule 6. Please also see the response to part a) above. No other updates to Enbridge Gas's evidence are required.

Stage 2 (Customer Fuel Savings) Data for Panhandle Regional Expansion Project

Assumptions

Line	(a)	(b)	(c)	(d)=(b)-(c)
	Fuel Prices	$/m^3	Gas $/m^3	Diff $/m^3
1	Heating Oil	1.90	0.30	1.60
2	Propane	1.14	0.30	0.84
3	Electricity	1.08	0.30	0.78

Fuel Mix in the Event Gas is Not Available

	(e)	(f)=(d)*(e)
	General Service	
	Fuel Mix	Wt Ave Diff $/ M^3
Heating Oil	24%	0.382
Propane	10%	0.080
Electricity	67%	0.520
Total %	100%	
Weighted Savings $/m^3		0.982

Gas and alternative fuel prices are the average posted prices for the 12 month period ending March 2023
Prices in the above table are before the added cost of Carbon.

Carbon Prices The cost of carbon is added to the price of each fuel in above table

	2024	2025	2026	2027	2028	2029	2030
Cost per tonne	$80	$95	$110	$125	$140	$155	$170

	Future Yrs 2031 and beyond
Cost per tonne	$170

Calculation for Stage 2 Incremental Energy Demand

	Estimated Energy Demand with Pipeline Built
Equals	Potential annual energy demand (for Stage 2 calculations)
Times	Weighted Average Savings per M3
Equals	Annual Fuel Savings: Natural Gas Vs Alt Fuels

Discount Rate for Net Present Values 4.0%

Length of Term for Fuel Savings
Stage 2 estimated based on 20 years and 40 years

Present Value of Customer Fuel Savings
For conservatism, the NPV is assessed over 20 years with sensitivity at 40 years

Figures in $ Millions	20 Years	40 Years
General Service Fuel Savings	226	353

NPV Fuel Savings Range from $226 Mil over 20 yrs to $353 Mil over 40 yrs

ENBRIDGE GAS INC.

Answer to Interrogatory from
Environmental Defence (ED)

INTERROGATORY

Reference:

Exhibit A, Tab 4, Schedule 1, Page 2

Preamble:

Enbridge states:

"On February 1, 2023, Enbridge Gas filed a letter stating that, following receipt of the new cost information, the Company also re-assessed the capacity position of the Panhandle System based on actual 2022 attachments and their system locations, as well as updated 2023 customer demand. As a result of that re-assessment, the Company anticipated that incremental demand for Winter 2023/2024 could be accommodated and that the Project's in-service date can be deferred one year (from November 1, 2023, to November 1, 2024)."

Question(s):

(a) Please provide a table showing the details of the re-assessed capacity position, including a before and after breakdown of the design hour and day demand by customer type.

(b) Please provide a table showing the details of the re-assessed attachment figures, including a before and after breakdown by customer type.

(c) Please provide Enbridge's best estimate for the reasons for the changed capacity position.

Response:

a) Details regarding updates to the existing system's capacity position between the initial application filed June 2022 and the amended application filed June 2023 are provided in Table 1 below. Please note that system capacity is not established by customer type and design hour is not applicable to transmission system design.

Table 1: Panhandle System Capacity Position Updates

System Capacity (TJ/d)	**Capacity Change (TJ/d)**	**Details**
713.2	--	Best available information at the time of initial application (June 2022)
740.3	+27.1	Existing and forecast customer demands shifting towards more hydraulically favorable areas.
736.5	-3.8	SWAHV[1] decrease

[1] The System-Wide Average Heating Value ("SWAHV") is the energy content of natural gas and is updated on an annual basis. From the time of the initial application and evidence filed June 2022 to the amended application and evidence filed June 2023, the SWAHV changed from 0.00003932 TJ/m³ to 0.00003912 TJ/m³.

b) Please see Table 2 below for a comparison of the demand forecast included within the initial application filed June 2022 ("Before") and the amended application filed June 2023 ("After") by customer type.

To preserve confidentiality of customer-specific commercially sensitive information that could divulge the nature and timing of investment decisions, Enbridge Gas is seeking confidential treatment of redacted content in Table 2. The "Large Commercial/Industrial" category reveals information about the timing and volume of incremental demand attributable to an individual customer, NextStar Energy.

The "Greenhouse" line must also be redacted so that the demand for the "Large Commercial/Industrial" category could not be calculated using aggregate figures which have been provided at other Exhibits. For example, Exhibit B, Tab 1, Schedule 1, Table 2 displays demand figures for the "Contract Firm (Total excluding Power Generators)" category which is the aggregate of the "Greenhouse" and "Large Commercial/Industrial" categories in Table 2 below. If the "Greenhouse" category in Table 2 below is not redacted, the "Large Commercial/Industrial" category could be calculated.

Table 2: Demand Forecast Comparison by Customer Type (TJ/d)

	Winter 21/22		Winter 22/23		Winter 23/24		Winter 24/25		Winter 25/26		Winter 26/27		Winter 27/28		Winter 28/29		Winter 29/30		Winter 30/31	
	Before	After	Before	After	Before	After	Before	After	Before	After	Before	After	Before	After	Before	After	Before	After	Before	After
General Service Firm (M1/M2)	304	304	305	298	306	299	307	301	308	303	310	305	311	307	312	308	313	310	314	311
General Service Firm (M2 with hourly measurement available)	6	6	6	9	6	9	6	9	6	9	6	9	5	9	6	9	6	9	6	9
Greenhouse - Firm Contract Only	[redacted]																			
Power Generators - Firm Contract only	106	106	106	106	106	106	164	163	164	195	164	195	164	195	164	195	164	195	164	195
Large Commercial/Industrial - Firm Contract only	[redacted]																			
Total System Demand Forecast	672	672	694	698	744	730	828	802	854	849	880	863	905	878	932	892	958	906	983	921
Before and After Demand Difference		0		4		-14		-26		-5		-16		-28		-39		-51		-63

c) There were two reasons for the change in the system's capacity position between the initial application filed June 2022 and the amended application filed June 2023 (i.e., existing and forecast customer demands shifting towards more hydraulically favorable areas, and the SWAHV update). Please see the responses to part a) above and to Exhibit I.APPrO.11, part 1 for more information.

ENBRIDGE GAS INC.

Answer to Interrogatory from
Environmental Defence (ED)

INTERROGATORY

Reference:

Exhibit A, Tab 4, Schedule 1, Page 4

Question(s):

(a) Please provide a copy of the original and the revised EOI/ROS, highlighting the change in text.

(b) Please provide a copy of all communications to customers referred to in paragraph 16 and all responses from customers.

(c) Please explain why Enbridge undertook the steps described in paragraph 16 for the updated application but did not do so prior to filing the original application.

(d) Please provide a breakdown of the changes that resulted from (i) more interruptible service, (ii) accounting for planned conservation, or (iii) other reasons.

(e) Are the steps described in paragraph 16 the standard Enbridge practice?

(f) Has Enbridge ever conducted the steps described in paragraph 16 before? If yes, please describe when and provide examples. If not, why not, and why start now?

(g) Will Enbridge be conducting the steps described in paragraph 16 on a going forward basis?

Response:

a) Please see Attachment 1 to this response for the 2021 EOI/ROS forms (i.e., Exhibit B, Tab 1, Schedule 1, Attachment 1 and 2) with yellow highlights indicating information that was changed or not included in relation to the 2023 EOI/ROS forms.

   Please see Attachment 2 to this response for 2023 EOI/ROS forms (i.e., Exhibit B, Tab 1, Schedule 1, Attachment 8 and 9) with blue highlights indicating information that was changed or not included in relation to the 2021 EOI/ROS forms.

b) Regarding communications to customers, please see the response at Exhibit I.FRPO.15, part c). Regarding response, please see Exhibit I.FRPO.15, Attachment 1.

c) The enhancements made to the 2023 EOI/ROS forms described at Exhibit A, Tab 4, Schedule 1, paragraph 16 were made “to gain further clarity and certainty regarding the nature of customer interest/bids.” Enhancements to the EOI/ROS forms, such as those described at paragraph 16, are an outcome of Enbridge Gas’s focus on improving its understanding of customer needs, which is informed by stakeholder input where appropriate. For clarity, the demand forecast underpinning the need for the Project was informed by the 2023 EOI/ROS and not the 2021 EOI/ROS.

d) Enbridge Gas does not have the information broken down in the manner requested by ED. The 2023 EOI/ROS process was designed to update Enbridge Gas’s understanding of the natural gas needs of customers – it was not designed to understand the changes between the 2021 and 2023 EOI/ROS. For information regarding the outcomes of the 2023 EOI/ROS process in relation to paragraph 16, please see Exhibit B, Tab 1, Schedule 1, paragraphs 23 – 31.

e) and g)

EOI/ROS forms have evolved (and are expected to continue to evolve) based on learnings from previous EOI/ROS processes as well as stakeholder feedback where appropriate. As such, EOI/ROS forms can differ between projects to reflect the needs of each project in question. Enbridge Gas does not have a “standard practice”.

f) Enbridge Gas has not explicitly included the enhancements described at paragraph 16 within EOI/ROS forms for previous projects, however the topics (for example, providing information regarding the availability of interruptible service as an alternative to new firm service and providing information regarding the Company's DSM programs) are part of the utility's regular/ongoing discussions with existing and prospective customers. Also, contract parameters are reviewed annually, and customers can re-visit and discuss contract parameter changes if their business needs have changed. For reasons why Enbridge Gas made the enhancements to the 2023 EOI/ROS forms for this Project, please see the response to part c) above.

ENBRIDGE
Life Takes Energy™

Panhandle Regional
Expansion Project

February 17, 2021

Panhandle Regional Expansion Project
Expression of Interest and Capacity Request Form

To serve a growing demand for natural gas across all sectors in Essex County, including Windsor, LaSalle, Amherstburg, Tecumseh, Essex, Leamington, Lakeshore, Kingsville, and in western Chatham-Kent, Enbridge Gas Inc. ("**Enbridge**") is pleased to announce this Expression of Interest for natural gas distribution service, which may require incremental facilities to serve this area (see attached map on page 4).

This Panhandle Regional Expansion Project (the "**Project**") is considering alternatives that could provide 65,000 to 130,000 m^3/hour of additional natural gas capacity. Depending on customer location additional local reinforcement may also be required to serve new and existing customers in this developing area. The potential Project is targeting incremental net demand from all sectors and is focused on the Large Volume commercial, industrial and greenhouse growth planned over the next five to ten years. Large Volume customers would include those consuming at least 50,000 m3/year or more. Small Volume customers interested in capacity should submit their request via the Get Connected website. The purpose of this expression of interest is to gather Large Volume customer input to help prepare a forecast that identifies the location, timing and magnitude of customer growth. The information gathered through the Expression of Interest process will be used to evaluate and finalize alternatives necessary to meet the demands and timing identified (potentially as early as fall 2023 or 2024).

Enbridge Gas recognizes that with the COVID-19 pandemic, many businesses are currently facing significant challenges; however, many others are planning significant growth. To ensure adequate capacity is available to accommodate the timing of any growth, the process must move forward at this time. Concurrent with this process to express interest in new capacity, all existing contract rate class customers in the Area of Benefit (see attached map on page 4) will be offered the opportunity to "turn back" or de-contract their capacity via a concurrent Reverse Open Season using the same bid form. Bids under the Reverse Open Season will be subject to other customers contracting to take on that "turned back" capacity. In this way, Enbridge will minimize the facilities required to serve incremental demand while optimizing any unwanted existing capacity. Existing customers should submit only one form for each site. Existing customers or potential new customers contemplating an expansion on a new site/address should submit a form for each new site/address.

The development of this Project is contingent upon sufficient net market demand and approval of the Project by the Ontario Energy Board ("**OEB**"). If sufficient demand is demonstrated, Enbridge Gas will file a Leave to Construct application with the OEB, with the goal of making the Project economically viable for customers in the area. Included in that application will be a proposed economic allocation methodology. Assuming the proposed economic allocation methodology is approved; large volume customers would be expected to execute distribution contracts of at least 10 years in order to make an economic contribution towards the transmission component of the Project. The Hourly Allocation Factor process recently approved by the OEB will be used for any additional distribution facilities that may be required related to the demands served by the transmission facilities. By proposing this approach, Enbridge Gas is trying to ensure the Project is economic for customers. This allocation will

address the facilities needed to serve the area shown on the attached map (page 4). This allocation does not include costs that are required to serve each specific customer such as new facilities built at the customer's site. The proposed allocation methodology will be subject to an economic review and approval of the OEB.

Enbridge Gas will consider the size and location of all requests for new capacity in designing the optimal facilities. If insufficient net customer interest or economic approval is not forthcoming, the Project is unlikely to proceed as proposed herein.

Capacity would be available for the following services, depending on market support:

1. New firm distribution service
2. Conversion of existing interruptible distribution service to firm service
3. New interruptible distribution service

This Expression of Interest process closes, and completed Expressions of Interest Bid Forms are due, no later than **12:00 p.m. EDT on Wed. March 31, 2021.**

Service Description and Details

1. As this Project requires a significant capital investment by Enbridge Gas, the term of the customer's natural gas distribution contracts will be no less than five years and not to exceed 20 years; and/or may include upfront payments for capacity and/or negotiated rates above currently OEB approved and posted, which do change over time. The facilities, rates and services included in this Expression of Interest will be subject to OEB approval and sufficient interest being received to justify a Project. The final scope of the proposed facilities will be determined using the demands from the forecast resulting from the EOI process and may change from those contemplated herein.
2. Submitting an Expression of Interest form:
   If you wish to participate in this Expression of Interest in the **Panhandle Regional Expansion Project**, please complete, sign and return the attached non-binding Expression of Interest Bid Form via email to Economic.Development@enbridge.com**.** Completed forms must be returned by email on or before 12 p.m. EDT on Wed. March 31, 2021. The returned Bid Forms will be time-stamped by the date on the bidder's email.

Expression of Interest Process and Bid Form

This process is designed to gauge interest in the Project and to assist Enbridge Gas with determining the optimal facility requirements to meet market needs and prepare an application to the Ontario Energy Board. Enbridge Gas will acknowledge receipt of all Bid Forms by email on or before the end of day on Friday, April 2, 2021. Enbridge Gas in its sole discretion reserves the right to reject any and all bids received.

Any suggested contractual Condition(s) Precedent that the customer proposes should be clearly articulated and attached to the Bid Form and will be considered during the capacity allocation process.

Enbridge Gas anticipates allocating capacity on a preliminary and conditional basis to successful

bidders by the end of June 2021. Successful bidders will then be asked to commit to the capacity by executing a Letter of Indemnity or an Enbridge Gas Distribution Contract or Letter of Agreement to more formally support the need for the project. **Any updates to the EOI process or timelines will be posted online here: www.enbridgegas.com/PanhandleRegionalExpansion**

If you have any questions about the Panhandle Regional Expansion Project, please contact your account manager or one of the following:

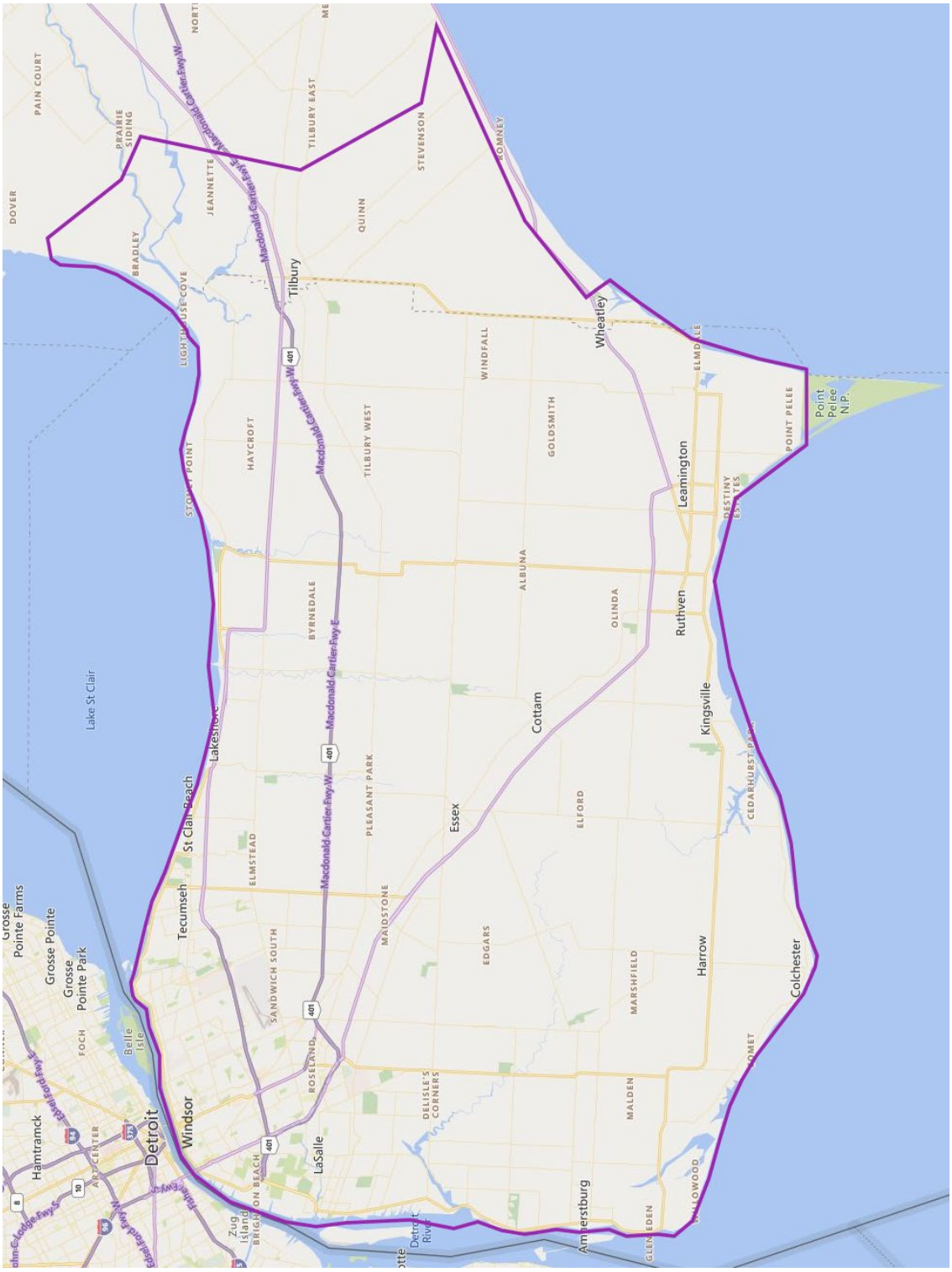
Patrick Boyer
Account Manager
Cell: (519) 436 4915
Patrick.Boyer@enbridge.com

Paul Rikley
Account Manager
Cell: (519) 350 2570
Paul.Rikley@enbridge.com

Sutha Ariyalingam
Manager, Strategic and Power Markets
Cell: (647) 241 9969
Sutha.Ariyalingam@enbridge.com

Map of proposed project service area

The map below outlines the area that is under consideration for a potential project to expand natural gas capacity. All potential large volume commercial, greenhouse or industrial customers considering developments within this area over the next five to ten years are encouraged to participate in this Non-Binding Expression of Interest.



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Panhandle Regional
Expansion Project

Expression of Interest Non-Binding Bid Form:

Please complete, sign and return this Expression of Interest Non-Binding Bid Form ("**Bid Form**") on or **before 12:00 p.m. EDT on Wed. March, 31, 2021**, via email to Economic.Development@enbridge.com

Based on the responses received through this Bid Form and the Reverse Open Season, Enbridge Gas will be able to define the optimal facilities required to support market needs. Enbridge Gas will determine whether to proceed with the Project, as proposed or with a refined scope, or not at all, based on the assessment of the results from this signed Bid Form and project economics. Customers may only submit one Bid Form per property. Bid Forms will be treated as confidential and only aggregated or non-identifiable data will be used to support any application to the Ontario Energy Board.

Property address: _____ SA: _____
911 address X,Y (latitude and longitude, if known) (if known)

❑ **New FIRM natural gas needs**. An increase of firm gas needs at the above location (i.e. new equipment, new processes), or a new firm gas load as a result of a new build.

Year	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Incremental (m^3/h)											
Cumulative											

Ultimate incremental **firm** gas needs over planning horizon: _____ m^3/hour (please provide details on estimated timing above)

❑ **Conversion from interruptible distribution service to firm distribution service**. The amount of incremental firm distribution service needed net of any existing firm distribution service resulting from conversion of existing interruptible service to firm distribution service.

Year	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Incremental (m^3/h)											
Cumulative											

❑ **New INTERRUPTIBLE natural gas needs**. An increase of interruptible gas needs at the above location (i.e. new equipment, new processes), or a new interruptible gas load as a result of a new build where customer is willing to accept the terms and conditions of interruptible service (for example periodic curtailment of gas distribution service).

Year	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Incremental (m^3/h)											
Cumulative											

Ultimate incremental **interruptible** gas needs (over planning horizon):_____ m^3/hour (please provide details on estimated timing above)

Economic Development impacts related to incremental gas needs:

Number of net new jobs related to this expansion: _____direct + _____indirect = _____total

Number of current jobs at risk if economical access to gas is not available: _____

Capital investment by Customer at the site conditional on economical access to gas: $_____

Please detail any other benefits from increased access to gas (lower GHG emissions or costs by displacing an alternative energy source etc.):_____

Total Incremental distribution service capacity (New firm + conversion of Interruptible): _____ m^3/hour.

Total job impacts related to economical access to natural gas (total new + current "at risk"): _____ jobs

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Customer Conditions Precedent for **growth:** If the Customer's Expression of Interest for growth is subject to Conditions Precedent, (please attach a separate page with details if space insufficient):

Option for Reverse Open Season (Turnback of existing capacity under contract at an existing site)

❑ **Turn back existing FIRM distribution service.** The amount of **firm** distribution service at the identified location no longer required by the customer.

Year	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Turnback (m^3/h)											
Cumulative											

❑ **Turn back existing INTERRUPTIBLE distribution service.** The amount of **interruptible** distribution service at the identified location no longer required by the customer.

Year	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Turnback (m^3/h)											
Cumulative											

Customer Conditions Precedent for **turnback of capacity**: If the Customer's request to turn back excess or unwanted capacity is subject to Conditions Precedent, (please attach a separate page with details if space insufficient):

Customer's legal name: _____

Name of Authorized Representative: _____ _____
Please Print Signature

Phone: _____ Email: _____

Dated this ____ day of _____, 2021

September 29, 2021

Panhandle Regional Expansion Project

In Franchise Binding Reverse Open Season

On February 17, 2021, Enbridge Gas Inc. ("**Enbridge Gas**") issued a Panhandle Regional Expansion Project Expression of Interest and Capacity Request ("**EOI**"). Based on the interest received from the EOI, Enbridge Gas expects expansion facilities will be required to meet the incremental demands for gas distribution service. To ensure economically efficient expansion of Enbridge Gas's pipeline system, we are now inviting binding bids for existing capacity turn-back.

Enbridge Gas is offering all existing distribution contract rate customers in the proposed project service area (see attached map on page 3) the opportunity to "turn-back" or de-contract existing distribution capacity.

Bids submitted in this Binding Reverse Open Season represent a legally binding commitment to turn back capacity. Existing customers should submit only one binding bid form for each distribution contract. Enbridge Gas, in its sole discretion, reserves the right to reject any and all bids received.

For details on the proposed Panhandle Regional Expansion Project, please visit: **www.enbridgegas.com/PanhandleRegionalExpansion**

This Binding Reverse Open Season closes, and bid forms are due, no later than **12:00 p.m. EDT Friday October 15, 2021.**

Submitting a Bid Form

If you wish to participate in this Binding Reverse Open Season please complete, sign and return the attached Binding Reverse Open Season Bid Form via email to Economic.Development@enbridge.com**.** Completed forms must be returned by email on or before 12 p.m. EDT on Friday October 15, 2021. The returned Binding Reverse Open Season Bid Forms will be time-stamped by the date on the bidder's email.

This process is designed to assist Enbridge Gas with determining the optimal facility requirements to meet market needs and prepare an application to the Ontario Energy Board for the proposed Panhandle Regional Expansion Project. Enbridge Gas will acknowledge receipt of all Reverse Open Season Bid Forms by email on or before the end of day on Monday October 18, 2021.

Any suggested contractual Condition(s) Precedent that the bidder proposes should be clearly articulated and attached to the Binding Reverse Open Season Bid Form and will be considered during the capacity turnback process.

If you have any questions about this Binding Reverse Open Season or the Panhandle Regional Expansion Project, please contact your account manager or one of the following:

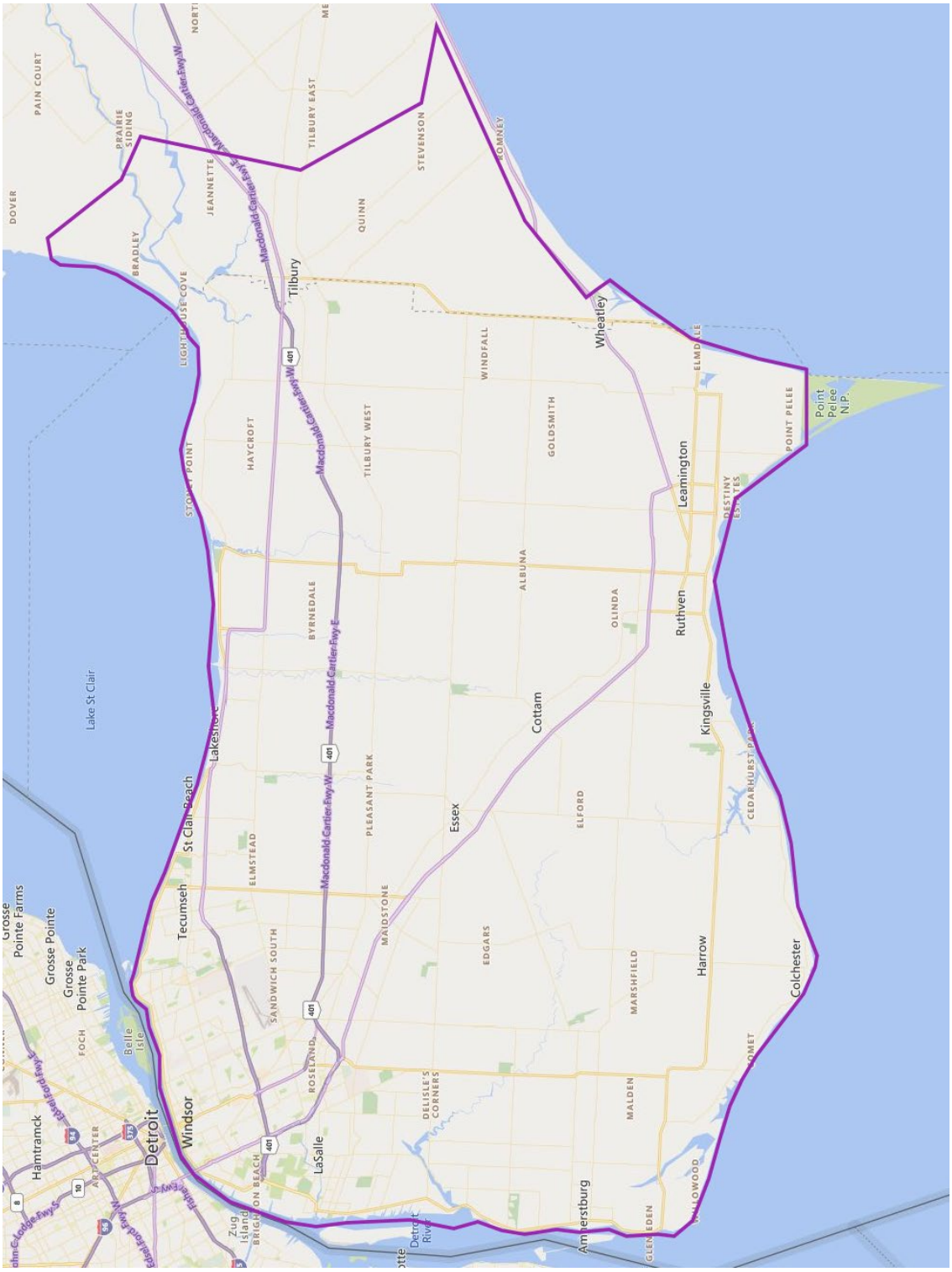
Patrick Boyer
Account Manager
Cell: (519) 436 4915
Patrick.Boyer@enbridge.com

Paul Rikley
Account Manager
Cell: (519) 350 2570
Paul.Rikley@enbridge.com

Mark Noce
Account Manager
Cell: (289) 659 3667
Mark.Noce@enbridge.com

Proposed project service area for Binding Reverse Open Season

The map below outlines the area that is under consideration for a potential project to expand natural gas capacity. All distribution contract rate customers holding existing Firm or Interruptible distribution capacity in this area that wish to turn back some or all of this capacity are invited to participate in this Binding Reverse Open Season.



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Binding Reverse Open Season Bid Form:

Please complete, sign and return this Binding Reverse Open Season Bid Form ("**Bid Form**") on or **before 12:00 p.m. EDT on Friday October 15, 2021**, via email to Economic.Development@enbridge.com

It is understood that Enbridge will review all Bid Forms and acknowledge all Bid Forms received on or before October 15, 2021. If Bidder's bid is accepted, with or without conditions, Enbridge will notify Bidder accordingly.

Bidders may only submit one Bid Form per distribution contract. Bid Forms will be treated as confidential and only aggregated or non-identifiable data will be used to support any application to the Ontario Energy Board.

Site address: _____ Distribution Contract SA: _____
911 address

Binding Reverse Open Season (Turnback of existing capacity under contract at an existing site)

❑ **Turn back existing FIRM distribution service.** The amount of **firm** distribution service at the identified location no longer required by the customer.

Year	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Turnback (m^3/hr)											
Cumulative											

❑ **Turn back existing INTERRUPTIBLE distribution service.** The amount of **interruptible** distribution service at the identified location no longer required by the customer.

Year	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Turnback (m^3/hr)											
Cumulative											

Bidder Conditions Precedent for **turnback of capacity**: If the Bidder's request to turn back excess or unwanted capacity is subject to Conditions Precedent, please include these Conditions Precedent in the space below or attach a separate page to this Bid Form:

_____

_____

Bidder's legal name: _____

Name of Authorized Representative: _____ _____
Please Print Signature

Phone: _____ Email: _____

Dated this ____ day of _____, 2021

February 23, 2023

Panhandle Regional Expansion Project
Expression of Interest and Reverse Open Season

On February 1, 2023, Enbridge Gas Inc. ("**Enbridge Gas**") submitted a request to the Ontario Energy Board ("**OEB**") to hold the leave-to-construct application for the Panhandle Regional Expansion Project (the "**Project**") in abeyance until August 2023 to allow time to update Project costs, the capacity position of the Panhandle System and customer demand forecasts (OEB Case No. EB-2022-0157). This will ensure the efficient expansion of natural gas facilities in the region.

The proposed Project is a transmission project that will help meet forecast demand within a large area of benefit and will supply the distribution networks which directly serve end-use customers. No customers will be directly connected to the proposed transmission facilities.

Enbridge Gas is conducting this second Expression of Interest and a concurrent Binding Reverse Open Season to reconfirm market demand in the Panhandle market area. It is important that in the contemplation of any bid, customers fully consider opportunities that may reduce their firm demand requirements, including Demand Side Management, interruptible rates, and alternative sources of energy.

Information received during this process will inform Enbridge Gas as to whether any changes to the Project are required.

Enbridge Gas is also requesting that customers expressing interest in new firm capacity provide additional information regarding their request to support the updates to the Project application that will be filed later this year.

Non-Binding Expression of Interest:

Enbridge Gas is once again inviting all large volume commercial, industrial, power generation and greenhouse customers to submit non-binding bids to express interest in new capacity (relative to their existing contracted capacity). For clarity, *any customers who participated in Enbridge Gas' 2021 Non-Binding Expression of Interest should submit a new bid form as part of this Expression of Interest for the full amount of additional capacity required in 2024 and beyond*. Unless Enbridge Gas receives a new bid form, the company will assume that no new capacity is required. The purpose of this Expression of Interest is to gather large volume customer input to generate an informed forecast that identifies the location, timing and magnitude of customer growth. Large volume customers are those consuming at least 50,000 m3/year or more. Small volume customers interested in capacity should submit their request via the Get Connected website.[1]

[1] https://www.enbridgegas.com/connect-to-gas

The information gathered through the Expression of Interest process will be used to confirm and evaluate the alternatives with the potential to meet the demands and timing identified.

Depending on customer location, additional local reinforcement may also be required to serve new and existing customers in this developing area.

Existing customers should submit only one bid form for each site. Existing customers or potential new customers contemplating an expansion on a new site/address should submit a bid form for each new site/address.

Enbridge Gas will consider the size and location of all requests for new capacity in designing the optimal facilities. If there is insufficient net customer interest, or if economic approval is not forthcoming, the Project is unlikely to proceed as proposed herein.

Depending upon market interest received, the Project will create capacity for the following services:

1. New firm distribution service
2. Conversion of existing interruptible distribution service to firm service
3. New interruptible distribution service

This Expression of Interest and Binding Reverse Open Season process will close by, and completed bid forms are due no later than, **12 p.m. EDT on Thursday, April 6, 2023.**

Service Description and Details

1. As this Project requires a significant capital investment by Enbridge Gas, the term of customers' associated natural gas distribution contracts will be no less than five years and not to exceed 20 years; and/or may include upfront payments for capacity and/or negotiated rates above those currently approved and posted by the OEB to support the cost of constructing customer-specific distribution related facilities. The facilities, rates and services included in this Expression of Interest are subject to OEB approval and sufficient interest being received to justify the Project. To ensure the continued efficient expansion of natural gas facilities in the region, the final scope of the proposed Project facilities will be informed by the demand forecast that results in part from this Expression of Interest process.
2. Submitting an Expression of Interest form:
   If you wish to participate in this Expression of Interest relating to the **Panhandle Regional Expansion Project**, please complete, sign and return the attached non-binding Expression of Interest Bid Form via email to Economic.Development@enbridge.com**.** Completed bid forms must be returned by email on or before 12 p.m. EDT on Thursday April 6, 2023.

Expression of Interest Process and Bid Form

This process is designed to gauge market demand in the Panhandle market area and to assist Enbridge Gas with determining the optimal facility requirements to meet market needs. Enbridge Gas will acknowledge receipt of all bid forms by email on or before the end of day on Tuesday, April 11, 2023. Enbridge Gas in its sole discretion reserves the right to reject any and all bids received.

Any suggested contractual Condition(s) Precedent that the customer proposes should be clearly articulated and attached to the bid form.

Successful bidders will then be asked to commit to the capacity by executing a Letter of Indemnity or an Enbridge Gas Distribution Contract to more formally support the need for the Project. **Any updates to the Expression of Interest process or timelines will be posted online here: www.enbridgegas.com/PanhandleRegionalExpansion**

Binding Reverse Open Season:

Concurrent with this process to express interest in new or incremental capacity, all existing contract rate class customers in the area of benefit are being offered the opportunity to "turn back" or de-contract their capacity via a concurrent Binding Reverse Open Season. Customers also have the option to convert existing firm distribution service to interruptible service.

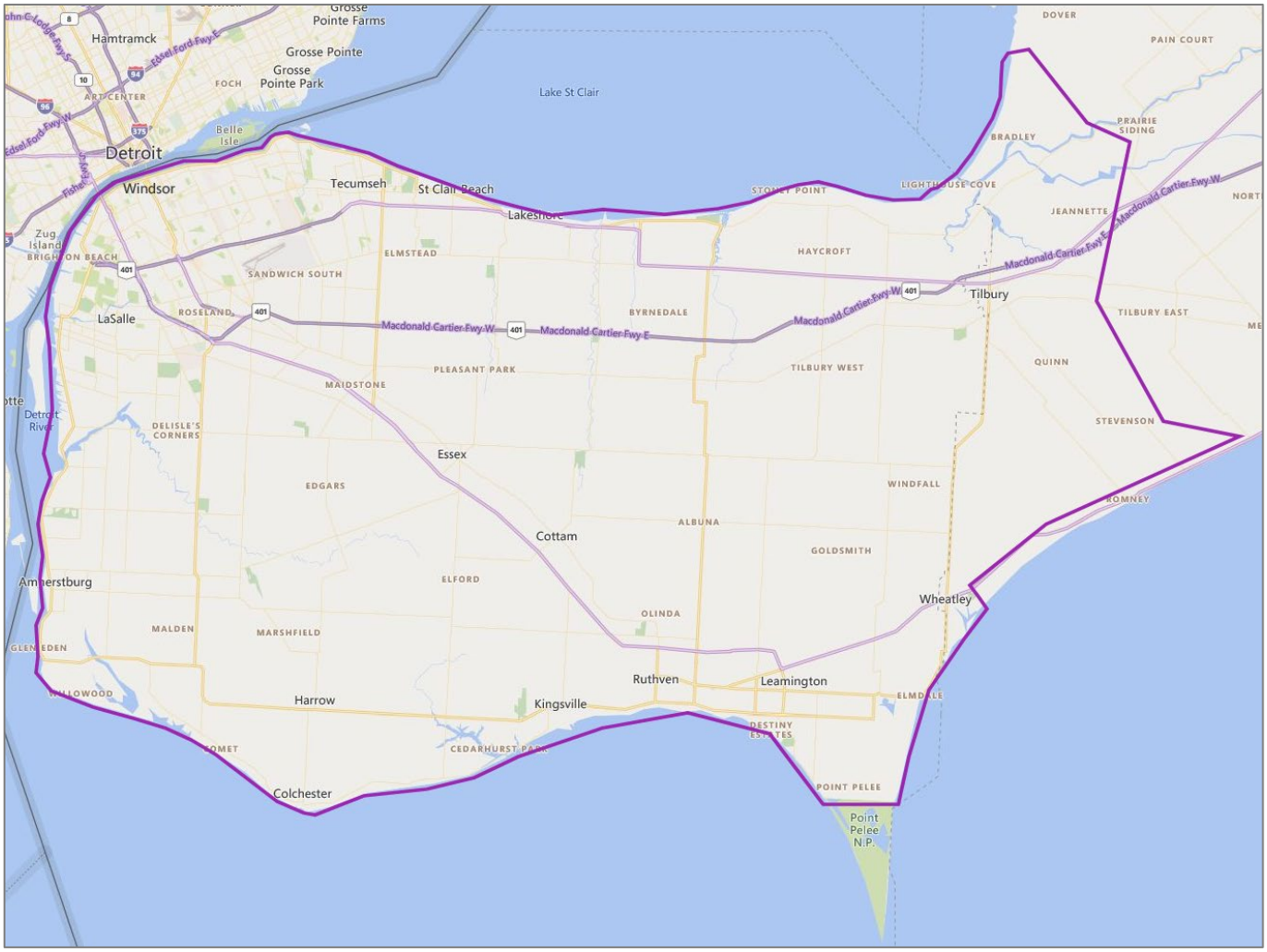
Any capacity turned back by customers through the Binding Reverse Open Season will be used to minimize any facilities deemed to be required to serve incremental demand.

If you have any questions about the Panhandle Regional Expansion Project, **please contact your account manager** or one of the following individuals:

Patrick Boyer Account Manager Cell: (519) 436 4915 Patrick.Boyer@enbridge.com	Awais Zulfiqar Account Manager Cell: (519) 784 6567 Awais.Zulfiqar@enbridge.com	Matt Ciupka Economic Development Specialist Cell: (519) 784 3919 Matt.Ciupka@enbridge.com

Map of proposed Project service area

The map below outlines the area that is under consideration for a potential project to expand natural gas capacity. All potential large volume commercial, greenhouse, industrial or power generation customers considering developments within this area over the next five to ten years are encouraged to participate in this Non-Binding Expression of Interest.



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Expression of Interest Non-Binding Bid Form:

Please complete, sign and return this Expression of Interest Non-Binding Bid Form ("**Bid Form**") on or **before 12 p.m. EDT on Thursday April 6, 2023**, via email to Economic.Development@enbridge.com

Based on the responses received through this Expression of Interest and Binding Reverse Open Season, Enbridge Gas will be able to confirm the optimal solution required to support market needs, including whether to proceed with the Project as proposed or with a refined scope. Customers may only submit one Bid Form per property. Bid Forms will be treated as confidential and only aggregated or non-identifiable data will be used to support any public submissions to the Ontario Energy Board. Enbridge Gas in its sole discretion reserves the right to reject any and all bids received.

Property address: _____ SA: _____
911 address | X,Y (latitude and longitude, if known) | (if known)

❑ **New INTERRUPTIBLE natural gas needs**. An increase of interruptible gas needs at the above location (i.e. new equipment, new processes), or a new interruptible gas load as a result of a new build where customer is willing to accept the terms and conditions of interruptible service (for example periodic curtailment of gas distribution service)

Year	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Incremental (m^3/h)										
Cumulative (m^3/h)										

Total new **interruptible** gas needs (over planning horizon): _____ m^3/hour

❑ **Conversion of existing interruptible distribution service to firm distribution service**. The amount of incremental firm distribution service needed net of any existing firm distribution service resulting from conversion of existing interruptible service to firm distribution service.

Year	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Incremental (m^3/h)										
Cumulative (m^3/h)										

What are the driving factors behind the request to convert current interruptible service to firm service?

_____

❑ **New FIRM natural gas needs**. An increase of firm gas needs at the above location (i.e. new equipment, new processes), or a new firm gas load as a result of a new build.

Year	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Incremental (m^3/h)										
Cumulative (m^3/h)										

Total new **firm** gas needs over planning horizon: _____ m^3/hour

Please provide responses to following questions if you have expressed interest in new **FIRM** natural gas needs in the table above.

Interruptible service as an alternative to new Firm service:

Is interruptible service a viable option for your business/operations (i.e., could your operations accommodate service interruptions lasting one or more days on multiple occasions per year?) Yes / No

- If no, please explain why.

_____

(i.e. disruption to operations, alt fuel cost/availability/emissions, potential loss of production/product, etc.)

- If yes, how would you ensure compliance with a service interruption?

_____

(i.e. switch to alternate fuel source, shut down operations/processes etc.)

Would you be more inclined to consider interruptible service over new Firm service if the ability to negotiate lower than posted interruptible rates was available? Yes / No

- If no, please explain why.

_____

- If yes, please indicate the interruptible distribution delivery rate that would be required for you to consider interruptible service as an alternative to new Firm service ($/m^3/day or percentage reduction in the distribution rate)

_____

Natural Gas Conservation:

Has Enbridge Gas discussed energy conservation program offerings with you? Yes / No

☐ By checking this box, we confirm that the bid amounts reflected above are inclusive of all future expected natural gas conservation activities (including natural gas conservations activities within and outside of Enbridge Gas' Demand Side Management programs, and the use of non-natural gas alternative options).

Economic Development impacts related to incremental gas needs:

Number of net new jobs related to this expansion: _____direct + _____indirect = _____total

Number of current jobs at risk if economical access to gas is not available: _____

Capital investment by Customer at the site conditional on economical access to gas: $_____

Please detail any other benefits from increased access to gas (lower greenhouse gas emissions or costs by displacing an alternative energy source etc.): _____

Total Incremental distribution service capacity (New firm + conversion of Interruptible): _____ m^3/hour

Total job impacts related to economical access to natural gas (total new + current "at risk"): _____ jobs

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Customer Conditions Precedent for **growth:** If the Customer's Expression of Interest for growth is subject to Conditions Precedent, please indicate those conditions below. Please attach a separate page with details if additional space is required.

_____

_____

_____

Customer's legal name: _____

Name of Authorized Representative: _____ _____
Please Print Signature

Phone: _____ Email: _____

Dated this ____ day of _____, 2023

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Expansion Project

Distribution Service Binding Reverse Open Season Bid Form:

Please complete, sign and return this Binding Reverse Open Season Bid Form ("**Bid Form**") on or **before 12 p.m. EDT on Thursday April 6, 2023**, via email to Economic.Development@enbridge.com

It is understood that Enbridge Gas will review and acknowledge all Bid Forms received on or **before April 11, 2023**. If a bid is accepted, with or without conditions, Enbridge Gas will notify the Bidder accordingly.

Bidders may only submit one Bid Form per distribution contract. Bid Forms will be treated as confidential and only aggregated or non-identifiable data will be used to support any application to the Ontario Energy Board. Enbridge Gas in its sole discretion reserves the right to reject any and all bids received.

Site address: _____ Distribution Contract SA: _____

Binding Reverse Open Season (Turnback of existing capacity under contract at an existing site)

- ❑ **Turn back existing FIRM distribution service.** The amount of **firm** distribution service at the identified location no longer required by the customer.

  Reduction start date: November 1, 2024 **Reduction volume:** _____ (m^3/hr)

- ❑ **Conversion of existing FIRM distribution service to INTERRUPTIBLE distribution service.** The amount of **firm** distribution service at the identified location that the customer would like to convert to **interruptible** service.

  Conversion start date: November 1, 2024 **Conversion volume:** _____ (m^3/hr)

- ❑ **Turn back existing INTERRUPTIBLE distribution service.** The amount of **interruptible** distribution service at the identified location no longer required by the customer.

  Reduction start date: November 1, 2024 **Reduction volume:** _____ (m^3/hr)

Interruptible service as an alternative to existing Firm service:

Is interruptible service a viable option for your business/operations (i.e., could your operations accommodate service interruptions lasting one or more days on multiple occasions per year?) Yes / No

- If no, please explain why.

_____

(i.e. disruption to operations, alt fuel cost/availability/emissions, potential loss of production/product, etc.)

- If yes, how would you ensure compliance with a service interruption?

_____

(i.e. switch to alternate fuel source, shut down operations/processes etc.)

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Would you be more inclined to consider converting existing firm distribution service to interruptible distribution service if the ability to negotiate lower than posted interruptible rates was available?

Yes / No

- If no, please explain why.

_____

- If yes, please indicate the interruptible distribution delivery rate that would be required for you to consider converting existing firm service to interruptible service. ($/m^3/day or percentage reduction in the distribution rate)

_____

Customer Conditions Precedent for **turnback/conversion of capacity**: If the Customer's request to turn back excess or unwanted capacity, or to convert existing firm service to interruptible service, is subject to Conditions Precedent, please indicate those conditions below. Please attach a separate page with details if additional space is required:

_____

_____

_____

Customer's legal name: _____

Name of Authorized Representative: _____ _____
Please Print Signature

Phone: _____ Email: _____

Dated this ____ day of _____, 2023

ENBRIDGE GAS INC.

Answer to Interrogatory from
Environmental Defence (ED)

INTERROGATORY

Reference:

Exhibit A, Tab 4, Schedule 1, Page 5

Question(s):

(a) Please provide a copy of the detailed calculations and figures underlying the comments in paragraph 19, including the forecast and actual 2022 customer demands, the original and updated forecasts, and so on.

(b) Please explain why Enbridge undertook the steps described in paragraph 19 for the updated application but did not do so prior to filing the original application.

(c) Are the steps described in paragraph 19 the standard Enbridge practice?

(d) Has Enbridge ever conducted the steps described in paragraph 19 before? If yes, please describe when and provide examples. If not, why not, and why start now?

(e)Will Enbridge be conducting the steps described in paragraph 19 on a going forward basis

Response:

a) The underlying analysis is completed through hydraulic modelling of the Panhandle Transmission System and therefore the requested calculations and figures cannot be reasonably provided. As stated in paragraph 19, the hydraulic model considers several factors including the magnitude and location of actual customer demands attaching to or leaving the system, forecasted new customer demands with anticipated locations, and assumption updates such as the system wide annual heat value (SWAHV). Please see Table 1 at the response to Exhibit I.ED.26, part a) for a detailed summary of changes to system capacity.

b) – e)

The information described in paragraph 19 are part of Enbridge Gas's standard practice for engineering hydraulic design, which is performed on an annual basis for

transmission and distribution systems. This practice was used for the initial application filed June 2022, the amended application filed June 2023, and will continue to be Enbridge Gas's practice on an ongoing basis.

ENBRIDGE GAS INC.

Answer to Interrogatory from
Environmental Defence (ED)

INTERROGATORY

Reference:

Exhibit A, Tab 4, Schedule 1, Page 5-6

Question(s):

(a) Please provide a copy of all correspondence to customers and all responses in relation to paragraphs 21 to 23.

(b) Please provide a list of the customers that Enbridge communicated with in paragraphs 21 to 23 along with each customer's design day and design hour demand.

(c) Why did Enbridge not ask customers whether they would be willing to contract for incremental capacity based if they had to pay $X, with $X being Enbridge's forecast of the CIAC that the customer would need to pay?

(d) Please reach out to customers again and ask if they would still be interested in contracting for more capacity if they had to pay, with $X being Enbridge's forecast of the CIAC that the customer would need to pay.

(e) Please provide a table showing the CIAC per customer that would be necessary to achieve a PI of 1. Please make and state assumptions as necessary. Please also include a column with each customer's most recent annual gas costs (both commodity and delivery, or just delivery costs and volumes if they are a direct purchaser for which Enbridge does not have commodity costs) to contextualize the cost of the CIAC.

(f) Please provide a table showing the CIAC per customer that would apply were the HAF rule to be applied here. Please make and state assumptions as necessary. Please also include a column with each customer's most recent annual gas costs (both commodity and delivery, or just delivery costs and volumes if they are a direct purchaser for which Enbridge does not have commodity costs) to contextualize the cost of the CIAC.

Response:

a) and b)
Please see the response at Exhibit I.STAFF.25, part a) including Attachment 1 to the response.

The requested demand information is not available until contracts are executed. Please see the response to Exhibit I.STAFF. 24, part a) for the status of contracts related to incremental capacity crated by the Project. For clarity, the EOI process is used to gather market intelligence from existing and new customers regarding their need for incremental natural gas capacity. The EOI results are then aggregated by year, analyzed against historical demand trends, and used as an input into the generation of an informed demand forecast.

c) Enbridge Gas did not discuss a specific CIAC or range of CIAC with customers. Rather, as part of the 2023 EOI, Enbridge Gas conducted outreach to customers who indicated their intention to submit an EOI bid to obtain their position on paying a CIAC. Enbridge Gas asked these customers how a requirement for a CIAC may impact their demands for new/incremental service. This outreach was a result of the OEB's Procedural Order No. 4 dated December 14, 2022, which stated:[1]

> "Enbridge may also wish to consider whether it should be communicating with potentially affected customers regarding the position of some parties that contributions in aid of construction should be required."

Calculating and/or providing a CIAC amount for a specific customer for a transmission project like the Project is not appropriate and not possible from a regulatory perspective. First, requiring CIAC for transmission assets is not a feature of EBO 134 and there is no OEB-approved methodology for its application. The contribution and the methodology to calculate the contribution is in effect a rate that must be approved by the OEB as being just and reasonable. If Enbridge Gas were to provide a number (even if one could be calculated) it would be highly speculative, a departure from past practice, and would represent to customers a rate that has never been considered and is not approved by the OEB.

From a practical perspective a number of unknowns including mass market demands, unidentified loads, final contracted demands, varying pressures and locations and benefits from a hydraulic perspective must be captured in any calculation or allocation. Furthermore, there is a temporal aspect that must also be considered. Not only are there unidentified loads that have yet to manifest but will benefit from the Project, the expected location and size of demands can vary by the time the Project is constructed. Larger greenhouses are being built, some more than

[1] OEB Procedural Order No. 4 (December 14, 2022), p. 3.

90 acres, in response to the availability of other utilities such as water, wastewater and power. Greenhouses have shifted away from some of the traditional areas where they were once centered. For greater clarity, demands over a geographic area in question do not have a proportionate effect on the capacity consumed; so there is not an apparent approach to determine an allocation in a fair manner such that demands known today are not paying an inordinate amount relative to future demands. In essence, much of this issue arises because the Project is not a dedicated facility and is instead a dynamic system serving and benefiting both new (both known and unknown) and existing demands across a system west of Dawn. In addition, more importantly, the method suggested by some intervenors to simply applying a HAF methodology, which is not approved by the OEB for transmission projects, is not appropriate based on the large geographic area of the Panhandle region combined with the multi-year forecast of the Project.

Second, from a customer perspective, when contemplating transmission facility applications under E.B.O. 134, project costs are not directly allocated to end-use customers and customers are not required to provide a CIAC to improve Stage 1 economics. Historically, transmission projects have required Stages 2 and 3 to pass the economic feasibility test under E.B.O. 134. Changing the established framework of E.B.O 134 within a single leave to construct application to require a CIAC contribution framework is inappropriate. Such a change would have a wide-ranging impact on the ability to meet increased demand for energy for future growth in Ontario, regardless of whether a project is being built to meet contract or general service growth.

Please also see the response at Exhibit I.STAFF.26, part a).

d) – f)
Please see the response to part c) above.

ENBRIDGE GAS INC.

Answer to Interrogatory from
Environmental Defence (ED)

INTERROGATORY

Reference:

Exhibit B, Tab 1, Schedule 1, Page 10 of 22

Preamble:

Enbridge states:

“Contract rate customer demand makes up approximately 94% of the capacity of the proposed Project. As of May 2023, approximately 34% of the contract rate customer demand is underpinned by a firm distribution contract. The commitment letters received in 2021 are no longer being relied upon by Enbridge Gas as they were applicable to the former 2021 EOI process only. Based on the timing of the 2023 EOI process and updated leave to construct application, Enbridge Gas will be executing firm distribution contracts with customers that are requesting service in 2024 and 2025 first, followed by securing customer demands for the future years.”

Question(s):

(a) Please provide a copy of JT1.33 that reflects the application updates and the current state of contracting.

(b) Please provide add three columns to the answer to (a) with the following: (i) the forecast revenue associated with each customer’s demand consistent with the forecast revenues underlying the DCF tables, (ii) the penalty that the customer would pay if they break the contract/commitment on day one and take no additional gas, and (iii) the penalty that the customer would pay if they break the contract/commitment 50% into the term and take no additional gas going forward.

(c) Please provide a copy of the latest versions of the: distribution contract, letter of indemnity, and commitment letter that Enbridge is using in relation to this project.

(d) Please provide a table with (i) an excerpt of any applicable penalty provisions and (ii) a description of the available penalties for the latest distribution contract, letter of indemnity, and commitment letter that Enbridge is using in relation to this project.

Response:

a) Please see the response at Exhibit I.STAFF.24, part a) for the current state of customer contracting.

b) i) Enbridge Gas is only able to provide the total revenue associated with the one executed contract identified in the response at Exhibit I.STAFF.24, part a). The annual revenue for the executed contract is $2.25 million or a term value of $11.25 million, which is based on the rate and is different from the DCF calculation. The revenues underpinning the DCF calculation use transmission margin only.

Enbridge is not able to provide the requested information for the other listed contracts for the following reasons:

- The revenue underlying the DCF analysis is not established at the customer level. Rather, it relies on the transmission margin for the forecasted contract and general service demands on an aggregate basis. The DCF analysis uses the transmission margin on an aggregated demand forecast level only as identified in Exhibit E, Tab 1, Schedule 4, p. 1.
- Forecasted contract demands are not calculated at a customer level until contracts are executed.
- Enbridge Gas is currently negotiating contracts with customers. Please see the response at Exhibit I.STAFF.24, part a) for the current state of customer contracting.

ii) and iii)
A customer who requests to terminate their contract prior to the end of their initial contract term will be required to pay the remaining financial obligations as per the contract. Please also see the response to part b) i) above.

c) Please see Attachment 1 to response at Exhibit I.PP.5, specifically:

- Distribution Contracts (Pages 1-55)
- Commitment Letter (Pages 56-58)
- Letter of Indemnity (Pages 59-60)

d) The requested information is provided below. The information can also be found at Attachment 1 to the response at Exhibit I.PP.5 as follows:

- Distribution Contracts (Pages 1-55): Pages 6-7, 25-26, and 43-44.
- Commitment Letter (Pages 56-58): No penalties.
- Letter of Indemnity (Pages 59-60): Pages 59-60.

Also included below is relevant information regarding General Terms and Conditions (Union Rate Zones - In-Franchise Contracted Services).

Document	Excerpt of applicable penalty provisions	Description of the available penalties
Distribution Contract	11. TERMINATION PRIOR TO COMPLETION OF EXPANSION FACILITIES The Company shall have the right to terminate this Contract at any time prior to the Day of First Delivery, pursuant to Section 2, by giving written notice hereof, subject to the terms hereof. Notice of termination by the Company, the Company will use commercially reasonable efforts to cease incurring Project Costs and to mitigate Cancellation Costs upon such termination. In no event shall the Company invoice Customer for any Cancellation Costs or Project Costs not previously invoiced by the Company after 12 months from the termination date. Without limiting the foregoing, Customer shall have the right to audit at Customer's expense the costs claimed for reimbursement by the Company for a period of six (6) months after each invoice is issued. "Project Costs" means any and all reasonable costs (including litigation costs, cancellation costs, carrying costs, and third party claims) expenses, losses, demands, damages, obligations, or other liabilities (whether of a capital or operating nature, and whether incurred or suffered before or after the date of this Contract) of the Company (including amounts paid to affiliates in accordance with the Affiliate Relationship Code as established by the Ontario Energy Board) in connection with or in respect of development and construction of the Expansion Facilities (including without limitation the construction and placing into service of the Expansion Facilities, the obtaining of all governmental, regulatory, and other third party approvals, and the obtaining of rights of way)	If this Contract is terminated by the Company as outlined above, then: (a) Upon such termination, this Contract shall be of no further force and effect and each of the parties shall be released from all further obligations hereunder, provided that any rights or remedies that a party may have for breaches of this Contract prior to such termination and any liability that a party may have incurred prior to such termination, and the parties' obligations under this Section 11, shall not thereby be released; (b) Customer shall reimburse the Company for all Project Costs; and (c) Customer shall reimburse the Company for all cancellation costs, fees or other amounts paid under contracts entered into by the Company to support the satisfaction of the conditions precedent set out in Section 2 ("Cancellation Costs"). The Company may invoice amounts under this Section from time to time, with the expectation that there will be an invoice rendered within 30 days of termination, and subsequent invoices as additional amounts payable hereunder are incurred from time to time. After delivery of such

	except for costs that have arisen from the gross negligence, fraud, or willful misconduct of the Company.	
Commitment Letter	No penalties	
Letter of Indemnity	Until a definitive natural gas distribution services agreement ("Contract") is executed by the parties hereto, the Company requires a written covenant from Customer to indemnify and save harmless the Company for all of the Project Costs related to the development and construction of any new Enbridge Gas Inc. facilities ("Expansion Facilities") needed to serve the new facilities. … Customer hereby irrevocably and unconditionally indemnifies and holds harmless the Company, and all of the Company's affiliates, employees, officers, and directors (collectively , the "Indemnitees") from all Project Costs which the Indemnitees or any of them may incur or suffer in respect of, or in connection with, or in any manner arising out of the development and construction of the Expansion Facilities. "Project Costs" means any and all costs, (including litigation costs, cancellation costs, carrying costs, and third party claims) expenses, losses, demands, damages, obligations, or other liabilities (whether of a capital or operating nature, and whether incurred or suffered before or after the date of this Indemnity Letter) by any of the Indemnitees (including amounts paid to affiliates for services rendered in accordance with the Affiliate Relationships Code as established by the Ontario Energy Board), in connection with or in respect of development and construction of the Expansion Facilities (including without limitation the construction and placing into service of the Expansion Facilities, the obtaining of all governmental, regulatory and other	Except to the extent of any Project Costs arising out of the Customer's breach of contract, negligence, fraud, or wilful misconduct, Customer's liability under this Indemnity Letter will not exceed $ [Amount] CAD [including/excluding] taxes. This Indemnity Letter will terminate on the earlier of (a) the date that the Contract is executed, or (b) [Expiry Date] unless extended in writing by mutual consent, provided, however, that if the termination occurs pursuant to item (b) of this Indemnity Letter, Customer shall pay to the Company for all Project Costs as herein defined. Such payment shall be within 30 days of the Company submitting an invoice for Project Costs to Customer. Interest on any amounts due hereunder will accrue at an effective monthly interest rate of 1.5%, compounded monthly, for a nominal annual interest rate of 18%. In the event of termination under item (b), the Company may invoice Customer for Project Costs, from time to time and at any time within 12 months of such termination.

	third party approvals, and the obtaining of rights of way,) whether resulting from any of the Indemnitees' negligence or not, except for any costs that have arisen from the fraud or wilful misconduct of any of the Indemnitees.	
General Terms and Conditions (Union Rate Zones - In-Franchise Contracted Services)[1]	3.02 Effect of Termination Notwithstanding the termination of this Contract, each party shall continue to be liable to pay on the terms herein specified any amount accrued and payable up to the time of termination. Termination will be without waiver of any other remedy to which the party not in default may be entitled including breaches of contract, for past and future damages, and losses."	

[1] https://www.enbridgegas.com/-/media/Extranet-Pages/Business-and-industrial/Commercial-and-Industrial/Large-Volume-Rates-and-Services/Contracts/gtc.ashx?rev=2748f1bad46947e0bc27a5eb0fa98e8a&hash=3B650D4F93963DF8FF7FA31DB6F33604

ENBRIDGE GAS INC.

Answer to Interrogatory from
Environmental Defence (ED)

INTERROGATORY

Reference:

EB-2022-0157, Exhibit C, Tab 1, Schedule 1, Attachment 3,

Question(s):

(a) Please provide an updated table of the forecast design day demand for the project area including a breakdown of demand attributable to (i) new greenhouses and (ii) existing greenhouses. Please also provide a breakdown of the greenhouses that are general service customers versus contract customers.

(b) Please ask Posterity to estimate the design day demand reductions in the greenhouse gas sector that are (i) cost-effective (i.e. technical potential) and (ii) both cost effective and attainable (i.e. achievable potential). Please provide this estimate for at least the next five year, plus as long out into the future as is possible.

(c) Please provide Posterity's answer to (b), identify the name of the Posterity witness, and provide their CV.

Response:

a) Enbridge Gas does not have a breakdown of general service demand for the greenhouse category specifically. Please see the response at Exhibit I.ED.11 for general service demand by residential and small commercial/industrial customers, which would include greenhouse customers.

   Enbridge Gas does not have a breakdown of greenhouse contract demand between new and existing customers. Please see Table 2 at the response at Exhibit I.ED.26, part b), for greenhouse demand from existing and new greenhouse contract customers ("Greenhouse – Firm Contract Only" line item).

b) Enbridge Gas interprets "greenhouse gas sector" referenced within the interrogatory as "greenhouse sector". Also, the interrogatory describes the "cost-effective" scenario as the "Technical Potential", however the "cost-effective scenario" is the "Economic Potential". The "Technical Potential" includes non-cost-effective

measures/reductions. Enbridge Gas interprets the interrogatory as requesting information regarding the “Economic Potential” and not the “Technical Potential”.

The requested information (i.e., design day demand reduction in the greenhouse sector) cannot be provided, as the analysis does not include the greenhouse sector as a separate sector but includes greenhouse data within a broader agriculture sector (which includes non-greenhouse sectors). Furthermore, the analysis consisted of general service customers only and not contract customers.

c) Dave Shipley is Posterity’s witness. Mr. Shipley’s CV is provided at Attachment 1 to this response.

POSTERITY GROUP

David F. Shipley

Director

Experience Overview

David Shipley has over 25 years of experience as an energy engineer. His areas of expertise include: stock-and-flow models for energy efficient buildings and technologies, load forecasting, CDM potential estimates, building energy modelling, building commissioning, building energy systems, energy efficiency, renewable energy, energy and environmental systems modelling, and demand-side management. Mr. Shipley recently served on the expert panel for the 2019 Ontario Achievable Potential Study, as a recognized national expert on these studies.

In recent years, Mr. Shipley has coordinated the residential sector analysis for conservation potential studies for electric and gas utilities in six provinces, and has developed modeling tools used for analysis by the commercial and industrial teams in these studies. This has led to the development of Posterity Group's Navigator™ suite of energy and emissions simulation tools. He has also conducted market studies on building commissioning, HVAC and lighting technologies for commercial buildings, and efficient equipment for industry. Before joining Posterity Group, Mr. Shipley was a Senior Consultant in energy efficiency with ICF/Marbek, and Project Manager with the Energy Center of Wisconsin.

Select Project Experience

Conservation Potential and High Efficiency Buildings

APS Engagement Workshop: Enbridge Gas (June 2023). Posterity Group prepared and conducted a workshop to better enable EGI staff to provide input into and review outputs from Ontario's 2023 Achievable Potential Study.

Measure Library Development and Maintenance: FortisBC (May 2023 – ongoing). Posterity Group is developing a new measure library for FortisBC's gas and Electric DSM measures and conducting ongoing upkeep and maintenance.

FortisBC is seeking a review and update of its internal measure library, accounting for new and updated measures included in the recent Conservation Potential Review and Demand Side Management Expenditure Plan. FortisBC also wants to optimize the organization of the measure library for ease of maintenance and usability.

Potential Study Meta-Analysis: NRCan (August 2022 – October 2022). The Canada's Green Building Strategy Secretariat within the Office of Energy Efficiency (OEE) will act as the "gatekeeper" for the 2023 budget submission to the Department of Finance for the Canada's Green Building Strategy which will be underpinned by various policy measures, programs, codes, regulations. As OEE is developing the first phase of the Canada's Green Building Strategy, they are tasked with assessing the impact of the programs administered by various departments in preparation of the 2023 budget process.

This task requires estimates of energy efficiency and GHG emission mitigation potential in the built environment but lacks suitable information of this type. In the short term, NRCan has hired Posterity Group to address this gap by collecting and summarizing the results of past energy efficiency potential studies conducted in Canada. This meta-analysis will serve as a high-level estimate of technical and economic potential until more detailed modelling and analysis is conducted.

Conservation Potential Study: Pacific Northern Gas (August 2021-November 2021). Posterity Group developed a Conservation Potential Review study for Pacific Northern Gas. This analysis built on resource planning and conservation potential work Posterity Group has recently completed in BC, including FortisBC's 2021 CPR. It has been used to support adjustments to PNG's current portfolio of DSM programs and PNG's 2023 DSM Plan and Resource Plan filing. Dave was Technical Lead and Residential Advisor.

2021 Conservation Potential Review: FortisBC Energy Inc. (January 2020-September 2021). FortisBC's 2021 Conservation Potential Review Study (CPR) supported two of FortisBC's major regulatory filings in 2022: the long-term gas resource plan (LTGRP) and the demand side management plan. Posterity Group estimated BC's technical, economic and market potential savings over a 20-year period for natural gas using its Navigator Energy and Emissions Simulations Suite™, which enables complex, multi-variable modelling, detailed scenario exploration and solution optimization. The CPR is an important guiding document for ongoing conservation and energy management program development and support at FortisBC. Posterity Group proposed a transparent, well-documented approach to develop the CPR and facilitated the engagement of internal and external stakeholders. Posterity Group completed end-use modelling and scenario development for FortisBC's 2022 Long Term Gas Resource Plan (LTGRP) in parallel with the CPR, to ensure technical consistency across the projects. Dave was Technical Director and Residential Sector Lead.

2022 Long Term Gas Resource Plan Demand Forecast and Resource Planning: FortisBC Energy Inc. (February 2020-July 2021). Following a successful engagement in 2017, FortisBC again engaged Posterity Group to generate a natural gas end-use forecast in support of their 2022 Long Term Gas Resource Plan (LTGRP) filing. The analysis uses baseline end-use energy intensities for over 40 customer segments across 5 provincial regions developed by Posterity Group through the 2021 Conservation Potential Review. Forecasting analysis incorporates multiple data sources including customer end-use surveys, customer energy use data, and price and commodity forecasts. In addition to the reference case forecast, Posterity Group conducted scenario analysis to estimate the impact on gas demand from a number of policy drivers including anticipated federal, provincial and municipal codes and standards, carbon pricing, efficiency activity, natural gas transportation, liquefied natural gas production, renewable natural gas production, and availability of district energy. Dave was Technical Director for the project.

Integrated Resource Planning and Achievable Potential Study Support: Enbridge (2019-Present). Technical lead on modeling and analysis to support Enbridge Gas in their planning and DSM activities. Building on the results of the provincial Achievable Potential Study (APS), used the Navigator™ Energy and Emissions Simulation Suite to construct a model of Enbridge's service territory to estimate DSM potential and peak demand impacts. The detailed model will permit the client-consultant team to better understand the outputs from the 2019 APS, identify limitations in the underlying dataset, and integrate additional data to estimate program potential and budgets. The Navigator™ Energy and Emissions Simulation Suite enables complex, multi-variable modelling, detailed scenario exploration and solution optimization. It also has an 8760 peak analysis module, which we are using to develop full annual load shape profiles for the gas end uses relevant to Enbridge's service territory.

Greenhouse Energy Profile Study: Ontario IESO (2018-2019). Technical lead on modeling and analysis of economic and achievable potential for energy conservation in covered agricultural facilities in Ontario, including greenhouses and indoor agriculture. Developed the stock-and-flow model for three different scenarios of sector expansion, for technical, economic, and achievable energy savings potential, and for peak demand reduction. Provided full 8760-hour profiles of demand before and after the application of energy and demand reduction measures.

2019 Ontario Achievable Potential Study Technical Advisory Panel: IESO (2018-2019). Acted as an Expert Panel Member to the Independent Electricity System Operator (IESO) and the Ontario Energy Board (OEB) for the 2019 Ontario Achievable Potential Study (APS). Provided advice on the integrated electricity and natural gas APS, which will seek to identify and quantify energy savings, GHG emission reductions, and associated costs from demand side resources for 2019-2038. Helped the IESO and OEB ensure that the APS is conducted using industry best practices. Reviewed and provided guidance on all aspects of the APS including the methodology and workplan, base case and reference forecast, energy efficiency and conservation measures, technical and economic potential analysis, achievable potential analysis, and final report.

Conservation Potential Study: Ontario Energy Board (2015-2016). Technical lead on modeling and analysis of economic and achievable potential for energy conservation in Ontario, covering the service territories of both natural gas companies. Led the residential analysis and was principal model developer, including development of stock-and-flow models, economic screening models, and achievable adoption models.

Conservation and Demand Management Study: Newfoundland Power and Newfoundland Labrador Hydro (2014-2015). Technical lead on modeling and analysis of economic and achievable potential for conservation and demand management in Newfoundland and Labrador. Led the residential analysis and was principal model developer.

Tailored Achievable Potential Studies for Ontario LDCs: Hydro One Networks, NPEI, Powerstream, Horizon Utilities, Thunder Bay Hydro, Waterloo North Hydro, Entegrus, Canadian Niagara Power, Algoma Power, Brantford Power, Milton Hydro, Oakville Hydro, Oshawa PUC, Haldimand County Power, Halton Hills Hydro, Burlington Hydro, Brant County Power (2014-2015). Developed tailored versions of the OPA achievable potential model (see the project immediately below), to provide detailed conservation potential estimates for the service territories of several Ontario LDCs.

Achievable Potential Study: Ontario Power Authority (2013). Led the analysis of conservation potential for all sectors, deriving much of the economic potential from outputs of OPA's End Use Forecaster model, but applying data from ICF Marbek's internal databases to estimate achievable potential. After a market characterization phase targeting the application of measures in Ontario, produced a fine-tuned estimate of achievable potential.

Conservation Potential Study for Yukon Government: YEC, and YECL (2011-2012). Led residential analysis of conservation potential, including developing detailed end-use baseline profiles calibrated to utility data, deriving economic potential for cost-effective actions in the residential sector, and forecasting 20-year economic and achievable savings.

Conservation Potential Study: SaskPower (2010-2011). Led residential analysis of conservation potential, including developing detailed end-use baseline profiles calibrated to utility data, deriving economic potential for cost-effective actions in the residential sector, and forecasting 20-year economic and achievable savings.

Conservation Potential Study: Terasen Gas (2010-2011). Led residential analysis of conservation potential, including developing detailed end-use baseline profiles calibrated to utility data, deriving economic potential for cost-effective actions in the residential sector, and forecasting 20-year economic and achievable savings.

DSM Potential Study: Enbridge Gas (2008). Led residential analysis of conservation potential, as part of a major update to the DSM study Marbek did in 2004. Developed detailed end-use baseline profiles

calibrated to utility data, derived economic potential for cost-effective actions in the residential sector, and forecast 10-year economic and achievable savings.

DSM Potential Study: Enbridge Gas Inc. (formerly Union Gas) (2008). Led residential analysis of conservation potential for Union Gas, as part of a project similar to Enbridge project above.

CPR 2007: BC Hydro (2007). Led analysis of residential savings potential for BC Hydro, as part of a project to estimate potential for all sectors. Derived detailed end-use baseline profiles calibrated to utility data, derived economic potential for cost-effective actions in the residential sector, and forecast 20-year savings. This was an update to an earlier CPR Marbek performed for BC Hydro in 2002.

CPR: Newfoundland Power and Newfoundland and Labrador Hydro (2007). Led analysis of residential savings potential for Newfoundland and Labrador, as part of a project to estimate potential for all sectors. Project included same elements as the BC Hydro study.

Fuel Switching Potential: Ontario Power Authority (2006). Developed the residential fuel switching potential estimate as part of a full fuel switching potential study for Ontario.

DSM Potential Study: Terasen Gas (2005). Developed the residential energy savings and fuel switching potential estimate as part of a full DSM potential study for the Terasen service territory. Conducted part of the commercial energy savings and fuel switching potential analysis.

DSM Potential Study: Enbridge Gas (2004). Developed the residential energy savings potential estimate as part of a full DSM potential study for the Enbridge service territory.

DSM Study: Manitoba Hydro (2003). Led residential analysis for DSM study.

Statewide Technical and Economic Potential: Consortium of Wisconsin Utilities (1993). While at Energy Center of Wisconsin, managed the completion phase of the estimate of conservation, fuel switching and load management potential, as part of IRP filing.

End-Use Energy Efficiency and GHG Mitigation Modelling & Load Forecasting

Resource Plan and Long-Term DSM Plan: Pacific Northern Gas (Feb. 2023-ongoing). Pacific Northern Gas selected Posterity Group to help develop PNG's 2023 Consolidated Resource Plan and Long-Term DSM Plan. The resource plan development involves the development, analysis, and reporting of energy consumption forecasts (for 20 years from 2023-2042) under various scenarios and modeling different critical uncertainties. The project also involves developing and incorporating into the resource plan a long-term DSM plan including draft sector DSM portfolios.

DSM Plan 2024-2027: FortisBC Energy Inc. (September 2022 – October 2022). FortisBC has assigned the development of its next five-year DSM Expenditure Plan (for both FortisBC natural gas and electricity utilities) to Posterity Group. The scope of work involves program and portfolio development, cost effectiveness modelling and reporting and filing of the 2024 – 2027 DSM plans. Dave is the Senior Advisor as well as the lead analyst for this project.

Resource Planning Support: SoCal Gas (April 2022-ongoing): Posterity Group is developing an end use model to support SoCal Gas with ongoing long term planning activities in both SoCal Gas' and SDG&E's service territories. PG will build a model that "mirrors" the results from the current End Use Forecaster (EUF) model and then add enhanced capability allowing users to accomplish modeling tasks that are either not currently possible (e.g., scenario analysis) or completed outside of the EUF model (e.g., policy impact analysis or electrification analysis). Dave is the Technical Director for the project.

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2022 Long Term Resource Plan Load Forecast Additional Analysis: FortisBC (March 2022-August 2022): Posterity Group continued to support FortisBC Energy Inc (FEI's) 2022 Long-term Gas Resource Plan (LTGRP) filing by conducting additional analysis related to the load forecast scenarios. PG provided several demand-side management setting options for FEI's Diversified Energy Planning scenario, reviewed calculation methods for the provincial GHG reduction requirements, and modelled impacts of FEI's system from BC Hydro's resource planning scenarios. Erika was the project manager and analyst for this project. She worked closely with the FEI client team, BC Hydro and their consultants, and PG's project team to execute the analysis on the tight schedule. Dave was the technical director for this project.

Renewable Gas Program Review – Cost Recovery: FortisBC Energy Inc. (July 2021-October 2021). FortisBC Energy Inc (FEI) reassessed the pricing scheme of their voluntary renewable gas (RG) program, including how to recover supply costs from customers who did not volunteer to pay a premium for RNG. Posterity Group (PG) focused on assessing how non-participants may respond to changes in their annual gas bill from RG-related costs. Posterity Group estimated impacts to annual demand and customer defection from price signals. The results of this project helped inform FEI's proposed design of the RG program to minimize impact on customers. Dave acted as Advisor.

DSM Planning Support: Enbridge Gas Inc. (January 2021-January 2022). In 2019 and 2020, Posterity Group worked with EGI to develop a Navigator end-use energy model to support DSM planning. The model aligns closely to the Ontario Energy Board's 2019 Achievable Potential Study but includes adjustments that better reflect Enbridge's input and experience, and to correct for identified limitations. Model outputs are housed within Power BI to provide an interactive means to support future EGI planning efforts. In 2021, Posterity Group worked with EGI to update and enhance the end-use model dataset to support its next multi-year DSM plan submission. Priorities include: Developing evidence to position the APS in a context that more accurately reflects EGI's knowledge and experience; Make further adjustments to the APS dataset to address deficiencies and enable sensitivity analysis; and Interrogatory and Witness Support. Dave was Technical Director and Lead Analyst.

Load Forecasts for the Southwest Ontario Greenhouse Sector: IESO (February 2021-August 2021). Greenhouse energy demand continues to expand in the Windsor-Essex and Chatham-Kent regions. To support planning efforts in these regions, the IESO developed three load forecast scenarios (a low growth, reference case, and high growth scenario) for greenhouse non-coincident winter-peak load. Posterity Group was hired to review the information and assumptions used by the IESO and provide additional information to validate the IESO's forecast scenarios or identify possible areas for adjustment. The main activities included in this project were data collection, review and analysis, scenario development, modelling, and a comparison of the data and model results to the IESO's assumptions and models. Dave acted as Expert Advisor.

Energy Transition Scenario Analysis: Enbridge (July 2020-March 2021). Posterity Group supported Enbridge's Energy Transition Planning team to conduct scenario analysis of the consider the financial and operational impacts of the range of climate policy related impacts Enbridge could face over the next 30 years. Posterity Group modeled future load at the granular level of energy end uses, different building types, rate classes, and regions, and undertaking scenario analysis to explore several possible economic and policy scenarios under which Enbridge may operate in the future. The goal of the project was for Posterity Group to provide Enbridge with a comprehensive end-use level dataset that reflects several possible futures and a user-interface tool that allows decision makers to explore this dataset and distill quantitative impacts (e.g., how gas use and GHG emissions will change) under different forecast scenarios. Dave was Technical Director and Residential Sector Lead.

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Energy Management Best Practices for Cannabis Greenhouses and Warehouses: CEATI International Inc. (November 2019-May 2020). Posterity Group, in partnership with Cultivate Energy Optimization and D+R International, assessed and documented best practices of energy management for cannabis production in both greenhouse and warehouse facilities. The study developed a five-year forecast of energy use in three regions (Ontario, British Columbia and the Pacific Northwest) for the sector and assessed energy saving opportunities. The outcome of this work formed an important base of industry knowledge and bridge the gap to provide current and comprehensive information regarding energy use in cannabis facilities, from which future conservation activities might be developed. Dave acted as Senior Analyst.

Long Term Resource Plan Model Enhancement: FortisBC Gas (November 2018-February 2020). Posterity Group added several new features to the Long Term Resource Plan model used to support FortisBC's regulatory filings. New features included the ability to output avoided cost and customer cost of energy, ability to vary short-term and long-term elasticity of energy demand based on the latest research, and the ability to run hundreds of stochastically-generated scenarios with inputs varying probabilistically.

Long Term Resource Plan Regulatory Support: FortisBC Gas (March 2018-November 2018). Posterity Group supported FortisBC in responding to BC Utilities Commission and intervener Information Requests (IRs) regarding its 2017 Long Term Gas Resource Plan (LTGRP). Posterity Group provided FortisBC with information and analysis in support of such inquiries related to the load forecast and subsequent scenario analysis conducted by Posterity Group for inclusion in FortisBC's LTGRP.

Analysis of Fenestration Products in Support of Canadian Market Transformation Activities: NRCan (July 2017-June 2018). Posterity Group provided analysis of the current market for low-rise residential fenestration products, including windows, doors, and skylights and developed estimates of the energy savings potential from changing performance levels in ENERGY STAR or introducing national performance standards. Dave was the technical lead on this project. To produce the estimate, he developed a detailed model of HVAC consumption in different types and vintages of low-rise housing in 22 regions, and modeled the application of several different fenestration energy performance improvements. Developed from publicly available data, this model can be applied for other future projects.

Low Carbon Heating Options for Ontario: Ontario Ministry of the Environment and Climate Change (November 2017-June 2018). Posterity Group estimated the GHG reduction impact potential of strategies targeting low carbon space, water and process heating technologies and fuels in Ontario's residential, commercial and industrial sectors. The project included four main activities: Development of energy and GHG Inventory and accompanying business as usual forecast for Ontario's thermal end-uses by fuel, sector/subsector, and end use; Development of a long list of fuels and technologies with abatement potential, and an evaluation matrix to build a short list of the 10 preferred, most promising technologies and fuels for detailed analysis; Detailed analysis of the short list of fuels and technologies to understand their current market structure, barriers, and applicability; and, development of illustrative deployment scenarios to estimate the potential impacts of the shortlisted fuels. Dave developed the inventory model and the illustrative deployment scenario models.

Natural Gas Demand Scenarios: FortisBC (July 2017-November 2017). Posterity Group provided demand scenario analysis to support FortisBC demand forecasting, with Dave acting as Technical Director and Residential sector lead. This work involved analysis of six scenarios that built on the core end-use forecast completed in June 2017. The project results helped FortisBC assess the impact of various policies, including the City of Vancouver zero emissions plan and the BC Step Code. As part of this work, Posterity Group added new features to the processing software at the heart of the forecasting model. These features allow users to dynamically select the municipalities that are expected to opt into new energy efficiency requirements.

Long Term Resource Plan Model and Forecast: FortisBC Gas (October 2016-June 2017). FortisBC turned to Posterity Group to develop a new end-use forecasting model to enhance their current end-use resource forecasting approach, and to generate a new 2017 forecast. The model provides value to the load forecasting, integrated resource planning, system planning, and conservation potential teams at FortisBC. Enhancements include: a full integration of energy efficiency impacts at the individual measure level, improved transparency of the model; features to allow casual users to vary parameters and review the effects on the results; outputs for every year in the forecast period (rather than milestone years); closer linkage between the annual demand and peak demand forecasting approaches; the ability to analyze the impact of changes such as municipal policy activity, ability to analyze the impact of liquefied natural gas and natural gas transportation initiatives. Dave was technical director and lead model developer.

End Use Load Forecast: FortisBC (2012-2014). Developed an end-use based load forecasting system for FortisBC, using detailed customer data and models built for an earlier conservation potential study. The model could forecast account growth and consumption of five fuels under five economic scenarios, over a twenty-year period, for three sectors, six regions, 33 rate classes, 36 building types, and 29 end uses. The model also estimated potential for conservation programs and reported on the sensitivity of the potential to different economic scenarios.

Integrated Resource Plan: NB Power (2009). Led residential analysis as part of a project to provide input data to NB Power's integrated resource planning process.

Conservation Potential Review and 20 Year Load Forecast: Ontario Power Authority (2009-2010). Led residential analysis of conservation potential for OPA, as part of project to develop a model combining forecasting and DSM potential.

Market Characterization of the Commercial/Institutional and Residential Sectors in Yukon: YEC and YECL (2012). Prepared initial program focus assessment documents, based on results from the Conservation Potential Study. Assisted in planning and preparing interview guides for market research, and conducted interviews. Provided input to program concept documents, which will lead to commercial and residential programs offered by the Yukon utilities.

Residential Market Segmentation Study: Enbridge Gas Inc. (formerly Union Gas) (2010). Led this analysis to assess the potential for DSM technologies in specific niche markets. In a mature market for DSM activities such as Union's service territory, many measures no longer pass the TRC test in a typical or average application, but often will pass in niche applications. We provided a strategic assessment of potential niche markets, to target DSM program activities.

EDUCATION

M.Sc., Energy Studies, University of Sussex - Brighton, Sussex, United Kingdom, 1987

B.A.Sc., Mechanical Engineering, Minor: Management Science, University of Waterloo – Waterloo, Ontario, Canada, 1986

CERTIFICATIONS

Licensed Professional Engineer (Ontario)

PROFESSIONAL AFFILIATIONS

American Society of Heating, Refrigeration, and Air-conditioning Engineers

POSTERITY GROUP

EMPLOYMENT HISTORY

Posterity Group	Senior Consultant	2016-Present
ICF International	Senior Technical Specialist	2011-2016
Marbek Resource Consultants	Senior Consultant	2000-2010
Energy Center of Wisconsin	Project Manager	1993-2000
Resource Management Associates	Energy Engineer	1991-1993
University of Waterloo	WATSUN Engineer	1987-1991

ENBRIDGE GAS INC.

Answer to Interrogatory from
Environmental Defence (ED)

INTERROGATORY

Reference:

Updated evidence

Question(s):

(a) Please review the answers to questions from Environmental Defence during the technical conference, advise if any answers are no longer accurate, and provide an accurate response to each of those.

Response:

Enbridge Gas respectfully declines to update the Technical Conference transcript since it would not be appropriate to do so as it would not reflect an accurate depiction of the exchanges between witnesses and examiners at the time the transcription was made. A two-day technical conference occurred on October 6 and October 7, 2022 where parties asked a significant number of clarifying questions on a number of interrogatories and areas. The Technical Conference is an oral exchange between the examiner and witness wherein the witness has provided his or her response as that person thinks best at the time the examination occurs. An update to the transcript of that exchange would mean that the transcript no longer is an accurate representation of a witness's responses at the time they were given and transcribed on October 6 and 7, 2022.

Furthermore, as indicated in Enbridge Gas's letter of August 25, 2023, Enbridge Gas has identified responses to interrogatories and undertakings that are no longer applicable and those that will be updated to reflect the Company's June 16, 2023 amended application. As noted in the correspondence, Enbridge Gas will file updated responses to interrogatories and undertakings with the responses to interrogatories on its amended application. Parties were initially permitted to ask follow-up questions to the updated interrogatories (and any related technical conference questions) at the originally scheduled technical conference scheduled for October 10, 2023 and can now, with the oral hearing, pose those questions as part of cross-examination. This is the best forum for the examiner and witness to update any oral technical conference responses that the examiner considers to be material since it will provide a proper oral record reflecting the statements of both examiner and witness.

ENBRIDGE GAS INC.

Answer to Interrogatory from
Energy Probe Research Foundation (EP)

INTERROGATORY

Reference:

Exhibit A, Tab 4, Schedule 1, Pages 5 and 6, paragraph 21

Preamble:

"Following the OEB's remarks in Procedural Order No. 4 regarding CIAC, Enbridge Gas account managers conducted outreach to customers who indicated their intention to submit an EOI bid. Customers were asked about the impact a requirement for CIAC would have on their demands for new/incremental service."

The themes of the feedback are as follows:

- Customers submitting EOI bids for new/incremental service were generally doing so under the assumption that the OEB would apply the established regulatory framework for transmission system expansion projects, which does not require CIAC, consistent with similar projects constructed in the past. Customers generally indicated opposition to being required to provide CIAC to support transmission system expansion in this instance.
- No customer indicated that they would be willing to provide CIAC for a transmission system expansion project without understanding the magnitude of the CIAC and the unique justification for its selective application in this instance.

Question(s):
a) When did the outreach to customers take place? Please provide exact dates.

b) Was the outreach to customers in written form? If the answer is yes, please file all written documents, including e-mails, used in the outreach. If the outreach was not in written form, please explain why not and file scripts of the oral communications with customers.

c) The evidence indicates that Enbridge did not provide estimates of the magnitude of potential CIAC to the customers that it contacted. Please explain why not.

d) Please file a list of customers that were contacted by Enbridge regarding CIAC.

e) Did Enbridge gas account managers explain to the customers the difference between a distribution and a transmission project? If the answer is yes, please describe what the Enbridge gas account managers said to the customers. If the answer is no, please explain why not.

f) Please confirm that contributions paid by customers reduce rate base, and therefore it is in the interest of both Enbridge Gas and the customers that the customers do not pay contributions.

g) Please confirm that the OEB has the jurisdiction to order Enbridge Gas to charge customer contributions.

Response:

a) and b)
Please see the response at Exhibit I.STAFF.25, part a).

c) Please see the response at Exhibit I.ED.29, part c).

d) Please see Attachment 1 at the response to Exhibit I.STAFF.25.

e) As per the response to Exhibit I.STAFF.25, part a) there was no information sent to customers regarding CIAC, and Enbridge Gas account managers were not provided with a script to deliver to customers. Enbridge Gas understands that many of the customers who bid in the 2023 EOI have the general knowledge, sophistication and experience from previous natural gas facility expansion projects constructed by Enbridge Gas.

   Enbridge Gas account managers support customers with a variety of questions they may have. Please see the response to Exhibit JT1.2 regarding the definition of transmission and distribution.

f) Contributions have the effect of reducing the rate base addition. The purpose of a contribution is to ensure there is no cross subsidization between rate payers for facilities constructed for the dedicated use of a customer. It is a regulatory purpose and it is in the interest of Enbridge Gas and customers that an appropriate regulatory regime apply.

g) A contribution and the basis on which it is calculated is a rate and as such is within the jurisdiction of the OEB to establish just and reasonable rates.

ENBRIDGE GAS INC.

Answer to Interrogatory from
Energy Probe Research Foundation (EP)

INTERROGATORY

Reference:

Exhibit A, Tab 4, Schedule 1, Pages 6, paragraph 22

Preamble:

"On this basis, and for the reasons already set out on the record for the current Application, the Company re-iterates that it is not appropriate to require CIAC from specific customers for the proposed Project because, as a transmission system, the Panhandle System transports natural gas for the benefit of all customers within the Panhandle Market – rather than individual or specific customers."

Question(s):

a) Is the Panhandle Market the area served by the Panhandle System Expansion Project? If the answer is no, please explain what the Panhandle Market is.

b) Will the Panhandle System Expansion Project increase the size of the Panhandle Market? If the answer is yes, please explain the extent of the increase. If the answer is no, please explain why not.

c) Please explain and quantify the benefits of the Panhandle System for the customers in the Panhandle Market.

d) Will the costs of the Panhandle System Expansion be recovered in rates only from customers in the Panhandle Market or will the costs also be recovered from customers outside the Panhandle Market?

e)Please define the term "transmission system" with references to the OEB Act and any other relevant document.

Response:

a) The Panhandle Market consists of residential, commercial, and industrial markets in the municipalities of Dawn-Euphemia, St. Clair, Chatham-Kent, Windsor, Lakeshore, Leamington, Kingsville, Essex, Amherstburg, LaSalle, and Tecumseh.[1]

   A map of the existing Panhandle System can be found at Figure 1 at Exhibit B, Tab 2, Schedule 1, p. 2. A map of the Project (in red) can be found at Figure 1 at Exhibit D, Tab 1, Schedule 1, p. 2.

b) No. The Project creates natural gas capacity for existing and new customers within Enbridge Gas's franchise area within the Panhandle Market.

c) For Project benefits that extend beyond identified contract customers, please see the response at Exhibit I.STAFF.25, part c).

d) Enbridge Gas is not seeking cost recovery of the Project as part of this application.[2]

   Please see response at Exhibit I.IGUA.1, part b) for an explanation of the current approved cost allocation methodology for the Panhandle transmission system for the Union South rate zone that underpins the Company's existing rates.

   Rates for 2024 will be set per the 2024 Rebasing (EB-2022-0200) Settlement Agreement approved by the OEB on August 17, 2023. Confirmed at Issue 24, interim rates for 2024 will be set by adjusting existing rates by a proportional allocation of the impact of any revenue deficiency/sufficiency determined in Phase 1 to each rate zone and rate class.

   The allocation of the Panhandle transmission system inclusive of the Panhandle Reinforcement Expansion Project to rate zones and rate classes in the Company's next cost allocation study will be reviewed in Phase 3 of the 2024 Rebasing (EB-2022-0200) proceeding.

e) Please see the response at Exhibit JT1.2.

[1] Exhibit A, Tab 1, Schedule 2, p. 2.
[2] Exhibit A, Tab 3, Schedule 1, para. 13.

ENBRIDGE GAS INC.

Answer to Interrogatory from
Energy Probe Research Foundation (EP)

INTERROGATORY

Reference:

Exhibit A, Tab 4, Schedule 1, Page 6, paragraph 23

Preamble:

"The Panhandle System transports natural gas supply and stored volumes from the Dawn Hub and upstream supply basins into and through Enbridge Gas's integrated storage and transmission systems, and ultimately distribution systems to end use customers."

Question(s):

a) How many "distribution systems" are directly served by the Panhandle System? Please describe each distribution system and the location of its connection with the Panhandle System.

b) The quoted sentence indicates that the direction of flow is from the Dawn Hub into the Panhandle System. Please confirm that the "end use customers" referred to in the sentence are the customers served by the distribution systems connected to the Panhandle System.

Response:

a) There are six distribution systems directly served by the Panhandle system, with varying levels of connectivity downstream. Please see the table below for a list of each six systems, the system description and a schematic reference number to align with the schematic shown at Exhibit B, Tab 2, Schedule 1, Attachment 1 for a visual representation of the station locations.

System	Schematic Reference No.[1]	Connection Name	System Description	Municipality Served by Connection
1	12	Couture Beach Station	420 kPa System	Lakeshore
	11	Lighthouse Station		
2	12	Jeanettes Creek Station	420 kPa System	Lakeshore
3	14	Stoney Point Station	420 kPa System	Lakeshore
	13	Tilbury N Twp 2nd Con Station		
4	4	Lindsey Tile Yard Station	420 kPa System	Chatham-Kent
5	12	Tilbury North Station	Various MOP Systems 3450 kPa to 2.5 kPa	Windsor, LaSalle, Tecumseh, Lakeshore, Amherstburg, Essex, Kingsville, Leamington, and Chatham-Kent
	15	St. Joachim Gate Station		
	16	Belle River Gate Station		
	17	Puce Road Station		
	18	Puce Wallace Line Station		
	19	Patillo Rd Gate Station		
	20	Elmstead Gate Station		
	21	Manning Road Station		
	22	Lauzon Road Station		
	23	Marentette Station		
	25	Walker Rd Station		
	26	Grand Marais Station		
	28	Bruce Ave Station		
	29	California Ave Station		
	30	Titcombe Rd Station		
	32	LaSalle Gate Station		
	32	Sprucewood Station		
	32	Turkey Creek Station		
	38	Essex Trans Gate Station		
	37	Kingsville East Gate Station		
	36	Mersea Gate Station		
	35	Leamington North Gate Station		
	35	County Road Rd 18 Station		
	35	Mersea Twp Conc 6 Station		
	35	County Rd 14 Gate Station		
	35	Mersea Rd 11 Station		
	35	Comber Transmission Station		
	39	Sandwich Transmission Station		
6	10	Bradley Farms Station	Various MOP Systems 3450 kPa to 2.5 kPa	Chatham-Kent Dawn-Euphemia, St. Clair
	8	Bechard Station		
	7	Dover Twp Cartier Line Station		
	5	Tupperville Transmission Station		
	5	Kent Bridge Rd Station at Base Line Station		
	6	Dover Centre Takeoff		
	1	Dawn West Takeoff		

b) Confirmed.

[1] This number aligns with the information presented within the schematic at Exhibit B, Tab 2, Schedule 1, Attachment 1.

ENBRIDGE GAS INC.

Answer to Interrogatory from
Energy Probe Research Foundation (EP)

INTERROGATORY

Reference:

Exhibit B, Tab 1, Schedule 1, Page 2, Paragraph 9

Preamble:

Paragraph "Consistent with these past experiences, significant growth has continued within the Panhandle Market and demand is forecast to exceed the Panhandle System capacity sooner than anticipated, resulting in the need to address a forecasted system capacity shortfall by November 1, 2024."

Question(s):

a) The quoted paragraph indicates that the there were two forecasts of when the demand was to exceed capacity. Please file the two forecasts and give the date of each forecast.

b) Please file a table showing the numbers of Panhandle Market customers by categories of general service and contract customers. For each category show the original demand forecast and the current demand forecast, and a column showing the increases or decreases for each category.

Response:

a) Kingsville Transmission Reinforcement Project (KTRP) facilities were anticipated to meet forecasted demand in the Panhandle Market until Winter 2025/2026, based on the best available demand forecast at the time.[1] The demand forecast at that time can be found at Table 7-1 at EB-2018-0013, Exhibit A, Tab 7, page 9 (filed January 25, 2018) and provided below:

[1] Exhibit B, Tab 1, Schedule 1, para. 8.

Table 7-1
Design Day (TJ/d)

Panhandle	Rate Class	Historical					Forecast								
		W 12/13	W 13/14	W 14/15	W 15/16	W 16/17	W 17/18 (Panhandle Reinforcement Project)	W 18/19	W 19/20	W 20/21	W 21/22	W 22/23	W 23/24	W 24/25	W 25/26
System Capacity (43.1 IOFF) (TJ/d)		**490**	**527**	**529**	**529**	**564**	**666**	**666**	**666**	**666**	**666**	**666**	**666**	**666**	**666**
System Demand (43.1 IOFF) (TJ/d)	M1/ M2	278	284	308	292	291	291	294	296	297	299	300	302	303	304
	M4	49	64	44	45	43	92	99	126	137	147	151	158	165	171
	M5	3	2	8	5	12	1	1	1	1	1	1	1	1	1
	M7	5	4	7	15	32	44	45	45	48	57	62	65	68	71
	T-1	155	162	34	31	28	30	30	31	31	31	31	31	31	31
	T-2	0	0	127	141	151	155	155	155	155	155	155	155	155	155
System Demand (43.1 IOFF) (TJ/d)	**Total**	**490**	**515**	**527**	**528**	**557**	**612**	**624**	**655**	**669**	**690**	**701**	**712**	**723**	**734**

For the current Panhandle Market demand forecast, please refer to Table 2 at Exhibit B, Tab 1, Schedule 1, page 13 (filed June 16, 2023).

b) Please see Table 1 below.

Table 1: EB-2018-0013 and EB-2022-0157 Comparison of Design Day Demands (TJ/d)

	Winter 19/20		Winter 20/21		Winter 21/22		Winter 22/23		Winter 23/24		Winter 24/25		Winter 25/26	
	EB-2018-0013	EB-2022-0157	EB-2018-0013	EB-2022-0157	EB-2018-0013	EB-2022-0157	EB-2018-0013	EB-2022-0157	EB-2018-0013	EB-2022-0157	EB-2018-0013	EB-2022-0157	EB-2018-0013	EB-2022-0157
General Service Rate Firm	296	317	297	308	299	310	300	306	302	308	303	310	304	312
Contract Rate Firm	359	323	372	348	391	362	401	392	410	422	420	492	430	537
Total System Demands	655	640	669	656	690	672	701	698	712	730	723	802	734	849
Difference in Design Day Demands		-14		-13		-18		-3		18		79		115

ENBRIDGE GAS INC.

Answer to Interrogatory from
Energy Probe Research Foundation (EP)

INTERROGATORY

Reference:

Exhibit C, Tab 1, Schedule 1, Page 2

Preamble:

"The industrial sector makes up 55 percent of the total peak hour consumption but only accounts for 23 percent of the peak hour reductions. This effect is due to several reasons:

- The HVAC and process heating (water and steam) end uses, both entirely in the industrial sector, make up 50 percent and 5 percent of total peak hour consumption, respectively. These end uses only account for a total of 22 percent of the peak hour reduction (17 percent for HVAC and 5 percent for process heating).

- There were significantly less measures that passed the TRC test in the HVAC and process heating (water and steam) end uses, especially when compared with space heating."

Question(s):

a) Please provide the numerical data that supports the statements by Posterity regarding the peak hour consumption and the peak hour reductions in the quoted text.

b) Did Posterity survey the industrial sector customers of Enbridge in the Panhandle Regional Expansion Market to obtain independent consumption information or did Enbridge provide posterity with the consumption information for the industrial sector?

Response:

The preamble appears to be referencing Exhibit C, Tab 1, Schedule 1, Attachment 2, Page 2 (not Exhibit C, Tab 1, Schedule 1, Page 2). Exhibit C, Tab 1, Schedule 1, Attachment 2 consists of Posterity's 2022 analysis which was not updated within Enbridge Gas's amended application filed in June 2023.

To be responsive, Enbridge Gas interprets the interrogatory to be regarding Posterity's 2023 analysis (Exhibit C, Tab 1, Schedule 1, Attachment 3, which was an update within the Company's amended application filed in June 2023), specifically the information at Page 3, which states:

> "The industrial sector makes up 22% of the total peak hour consumption but only accounts for 9% of the peak hour reductions. This effect is due to the dominance of the few residential space heating measures mentioned above over all other measures:
>
> - 84% of industrial peak hour reductions come from HVAC."

a) The numerical data supporting Posterity's observations are shown in Tables 1 to 3 below.

Table 1

2029 Peak Hour Consumption for Industrial (General Service)

	Industrial	Total
Absolute (m3/hr)	100,939	449,472
Proportion	22%	100%

Table 2

2029 Peak Hour Reduction for Industrial (General Service)

	Industrial	Total
Absolute (m3/hr)	6,576	71,899
Proportion	9%	100%

Table 3

2029 Peak Hour Reduction by End Use for Industrial (General Service)

Industrial	HVAC	Total
Absolute (m3/hr)	5,525	6,576
Proportion	84%	100%

b) For clarity, Posterity's analysis did not include contract customers.[1] As per Exhibit B, Tab 1, Schedule 1, paragraph 20, customers who submitted an EOI form through the 2023 EOI/ROS process were asked to confirm that their EOI bid volumes were inclusive of all future natural gas conservation activities, including natural gas conservation activities within and outside of Enbridge Gas's Demand Side Management programs, and the use of non-natural gas alternative options. All customers confirmed that to be the case.

   Enbridge Gas provided the consumption information for the general service industrial sector to Posterity.

[1] Exhibit C, Tab 1, Schedule 1, Attachment 3, p. 1: "Only general service customers are included in this analysis; contract customers are not included."

ENBRIDGE GAS INC.

Answer to Interrogatory from
Energy Probe Research Foundation (EP)

INTERROGATORY

Reference:

Exhibit E, Tab 1, Schedule 1, Page 4, Paragraph 9, and Schedule 5.

Preamble:

"The Stage 1 DCF analysis for the Project can be found at Exhibit E, Tab 1, Schedule 5. This schedule indicates that the Project has a NPV of negative $150 million and a PI of 0.48."

Question(s):

a) Why did Enbridge use a 40-year revenue horizon in its Stage 1 DCF analysis?

b) What are the NPV and the PI if a 20-year horizon is used in the DCF analysis as is specified in EBO 188 for large volume customers?

Response:

a) Enbridge Gas used a 40-year revenue horizon consistent with past E.B.O. 134 applications approved by the OEB.

b) Using a revenue horizon of 20 years results in a Stage 1 NPV of negative $174 million and a PI of 0.39.

ENBRIDGE GAS INC.

Answer to Interrogatory from
Energy Probe Research Foundation (EP)

INTERROGATORY

Reference:

Exhibit E, Tab 1, Schedule 1, Pages 4 and 5, Paragraph 14

Preamble:

"A Stage 2 analysis was undertaken as the Stage 1 NPV is less than zero (negative $150 million). The Stage 2 analysis considers the estimated energy cost savings that accrue directly to Enbridge Gas in-franchise customers as a result of using natural gas instead of another fuel to meet their energy requirements. The difference in fuel cost is derived as:
[Weighted Average Alternative Fuel Cost - Cost of Natural Gas] × Energy Use".

Question(s):

a) Who are the "in-franchise customers" referred to in the quoted sentence? Are they new customers added in the Panhandle Regional Expansion Market area? If they are not, please explain why not?

b) Do the "weighted average alternative fuel cost" remain constant over the analysis periods of 20 and 40 years? If the answer is yes, please explain why. If the answer is no, please explain how the weighted average alternative fuel costs change over the 20 year and 40-year periods.

c) What assumptions did Enbridge make in its Stage 2 analysis regarding the impact of Energy Transition initiatives over the 20 year and 40-year periods, such as

i. electrification and the percentage of residential customers converting their heating systems from gas to electricity;

ii. hydrogen and RNG volumes used by Enbridge in its system and the impact on the cost of gas; and

iii. costs of conversion of the Enbridge facilities in the Panhandle Market area to allow for distribution of hydrogen.

Response:

a) The in-franchise customers referenced are new customers in the general service customer class.

b) Yes. This is consistent with past E.B.O. 134 applications approved by the OEB and provides results reflecting actual best available energy prices in the absence of reliable 20 and 40 year energy price forecasts by fuel type.

c) i. There are no specific assumptions regarding electrification and the percentage of residential customers converting their heating systems from gas to electricity in the Stage 2 analysis, beyond what has been included in the customer forecast consistent with those described in EB-2022-0200.

ii. There are no assumptions regarding hydrogen and RNG volumes used by Enbridge Gas in its system and the impact on the cost of gas in the Stage 2 analysis.

iii. There are no assumptions regarding the costs of conversion of the Enbridge Gas facilities in the Panhandle Market area to allow for distribution of hydrogen in the Stage 2 analysis.

ENBRIDGE GAS INC.

Answer to Interrogatory from
Energy Probe Research Foundation (EP)

INTERROGATORY

Reference:

Exhibit E, Tab 1, Schedule 1, Page 5

Preamble:

"The Stage 2 energy cost savings have only been calculated for the general service customer class. It is assumed that contract rate customers will not choose an alternative fuel if natural gas is not available to them. The non-availability of natural gas will cause contract rate customers to expand or move their operations to other jurisdictions, likely outside of Ontario, where their natural gas needs can be served."

Question(s):

a) Did Enbridge contact contract rate customers regarding their plans if natural gas was not available to them? If the answer is no, please explain why not. If the answer is yes, please indicate which customers would move to other jurisdictions?

b)What assumptions did Enbridge make regarding potential use of hydrogen and RNG by contract rate customers?

Response:

a) No, Enbridge Gas did not specifically ask contract customers what their plans would be if their natural gas requirements were not available.

   Regarding existing natural gas requirements from existing customers, Enbridge Gas understands that customers operate with the understanding that their existing contract demands will continue to be met by the Company.

   Regarding incremental natural gas requirements from existing and new customers, Enbridge Gas understands that customers who cannot access their natural gas needs would be required to explore alternative locations to expand their operations, where access to affordable energy exists. Please see a recent Globe and Mail article which includes commentary from the greenhouse industry:

- August 2023: “Southern Ontario’s greenhouse operators warn lack of infrastructure is slowing growth in booming sector” – https://www.theglobeandmail.com/business/article-windsor-greenhouse-growers-infrastructure/

b) Enbridge Gas did not make assumptions that any of the volumes on the proposed pipeline would be hydrogen or RNG.

Contract customers who are direct purchase may purchase RNG as part of their supply. As proposed in Phase 2 of Enbridge Gas’s Rebasing Application at Exhibit 4.2.7, the Company has proposed a new Low Carbon Voluntary Program to enable system supplied customers the ability to voluntarily elect that a portion of their supply be RNG, pending OEB approval, beginning in 2025.

ENBRIDGE GAS INC.

Answer to Interrogatory from
Energy Probe Research Foundation (EP)

INTERROGATORY

Reference:

Exhibit E, Tab 1, Schedule 2, Page 1

Question(s):

a) Please explain how the Indirect Overheads of $68.8 million were estimated showing all calculations.

b) Were any Indirect Overheads amounts applied to Outside Services? If the answer is yes, please explain why Outside Services costs, which are costs paid to outside construction contractors have Enbridge Indirect Costs applied to them.

Response:

Enbridge Gas is not seeking cost recovery of the Project as part of this application.[1] Indirect overheads have been shown at Exhibit E, Tab 1, Schedule 2 to provide continuity for a separate proceeding regarding cost recovery. Indirect overheads are not included in the Project economics.

a) Please see Attachment 1 to this response (filed under EB-2022-0200, Exhibit J16.2, Attachment 1) for the derivation of the $68.8 million figure.

b) Indirect overheads are allocated to projects based on the amount of direct capital costs and the overhead rate applicable by year. Indirect overheads are not allocated to specific cost components, such as Outside Services.

[1] Exhibit A, Tab 3, Schedule 1, para. 13.

Panhandle Regional Expansion Project
Project Cost

Line No.	Cost Description ($ millions)	Mainline	NPS 36 Stations	Subtotal	Dawn	Total	
1	Materials	$ 28.3	$ 2.2	$ 30.5	$ 26.4	$ 57.0	
2	Labour	2.7	0.2	2.8	0.9	3.8	
3	External Permitting and Land	17.4	-	17.4	-	17.4	
4	Outside Services	130.8	5.4	136.2	42.0	178.1	
5	Contingency	13.9	0.6	14.5	6.3	20.8	
6	Interest During Construction	6.4	0.3	6.7	5.4	12.1	
7	Total Direct Capital Cost	199.5	8.6	208.1	81.1	289.2	
8	Indirect Overheads	48.0	2.1	50.1	18.7	68.8	
9	Total Project Cost	$ 247.5	$ 10.7	$ 258.2	$ 99.8	$ 358.0	
	Total Direct Capital Cost excluding IDC	193.1	8.3	201.4	75.7	277.1	
	Indirect Overhead Rate	24.8%	24.8%	24.8%	24.8%	24.8%	- weighted average of each year's OH rate
	Total Indirect Overheads	48.0	2.1	50.1	18.8	68.8	

ENBRIDGE GAS INC.

Answer to Interrogatory from
Federation of Rental-housing Providers of Ontario (FRPO)

INTERROGATORY

Reference:

Exhibit A, Tab 4, Sch. 1, p. 4 and Exhibit B, Tab 1, Sch. 1 and Attachments

Preamble:

EGI evidence states: Using the results of the additional EOI/ROS, an updated demand forecast to Winter 2030/2031 was developed which reflects decreases in customer demand, including:

• Winter 2023/2024 customer demands decreased by 14 TJ/d, from 744 TJ/d to 730 TJ/d.
• The 5-year demand forecast (i.e., the total forecast demand in Winter 2028/2029) decreased by 40 TJ/d, from 932 TJ/d to 892 TJ/d.[1]
….
1 As described in Section C of this Exhibit, the existing capacity of the Panhandle System is 737 TJ/d.

Contract rate customer demand makes up approximately 94% of the capacity of the proposed Project. As of May 2023, approximately 34% of the contract rate customer demand is underpinned by a firm distribution contract. The commitment letters received in 2021 are no longer being relied upon by Enbridge Gas as they were applicable to the former 2021 EOI process only. Based on the timing of the 2023 EOI process and updated leave to construct application, Enbridge Gas will be executing firm distribution contracts with customers that are requesting service in 2024 and 2025 first, followed by securing customer demands for the future years.

We would like to understand better the forecasted growth and the amount of growth for which EGI has a binding commitment.

Question(s):

Please expand and update Table 1 with the amount of demand for which EGI has received a binding commitment.

a) Further please describe any monetary contractual commitments associated with these commitments such as aid-to-construct, minimum annual volume, term, consequences associated with not ultimately contracting for the future demand, etc.

b) Please provide the letter of indemnity that customers were offered.

Response:

Please see the response at Exhibit I.STAFF.24, part a).

a) Enbridge Gas is currently negotiating the commercial agreements with customers. Generally, customers who will require customer specific distribution facilities will be using EBO 188 financial guidelines to determine if CIAC is required.

   Please see the response at Exhibit I.ED.30, parts b) and d).

b) Please see Exhibit I.PP.5, Attachment 1, pp. 59-60.

ENBRIDGE GAS INC.

Answer to Interrogatory from
Federation of Rental-housing Providers of Ontario (FRPO)

INTERROGATORY

Reference:

Exhibit A, Tab 4, Sch. 1, p. 4 and Exhibit B, Tab 1, Sch. 1 and Attachments

Preamble:

EGI evidence states: To provide clarity and respond to any questions regarding the EOI and ROS process, Enbridge Gas account managers directly contacted each contract rate customer in the Panhandle Market. In addition to direct outreach, all existing contract customers were invited to attend an in-person meeting held on March 7, 2023, and/or a virtual meeting held on March 23, 2023. A meeting with local economic development officials was also held on March 2, 2023, to inform them of the process and timelines, and to answer any questions related to the forms.

Question(s):

Please summarize what account managers heard from customers on the potential negotiation of firm to interruptible.

a) Please provide all of the feedback received on page 6 of Attachment 8

b) Please provide any notes, minutes or “as we heard it” from the March 7, 2023 meeting.

c) Please provide all emails from staff in the account management department that relate to the potential of the provision of interruptible service.

d) Were customers provided with a potential range of reduction of interruptible rate as a means of comparison.

i) If not, why not.

Response:

For a summary of customer responses regarding whether customers would be more inclined to consider interruptible service over new firm service if the ability to negotiate lower than posted interruptible rates was available, please see Exhibit B, Tab 1, Schedule 1, Paragraph 29.

a) Please see Attachment 1 to this response.

b) Enbridge Gas does not have notes or minutes from the meeting on March 7, 2023.

c) Enbridge Gas does not have email communications from the account management department to customers regarding the viability of interruptible service as an alternative to new firm service (including whether they would be more inclined to consider interruptible service over new firm service if the ability to negotiate lower than posted interruptible rates was available), or regarding whether EOI bid amounts are inclusive of all future expected natural gas conservation activities (including natural gas conservation activities within and outside of Enbridge Gas's Demand Side Management programs, and the use of non-natural gas alternatives). The information was requested by Enbridge Gas via the EOI/ROS forms (see Exhibit B, Tab 1, Schedule 1, Attachment 8, p. 6, and Exhibit B, Tab 1, Schedule 1, Attachment 9, pp. 1-2).

d) No. Enbridge Gas did not limit customer responses by providing potential ranges. Any rate or reduction in rate could have been provided by the customer in response to the question.

Interruptible service as an alternative to new Firm service (Yes/No)	If no, please explain why	If yes, how would you ensure compliance with a service interruption	Would you be more inclined to consider interruptible service over new Firm service if the ability to negotiate lower than posted interruptible rates was available (Yes/No)	If no, please explain why	If yes, please indicate the interruptible distribution delivery rate that would be required for you to consider interruptible service as an alternative to new Firm service ($/m3/day or percentage reduction in the distribution rate)	Has Enbridge Gas discussed energy conservation program offerings with you (Yes/No)	Natural gas conservation (attestation)
No	- disruption to operations, alt fuel cost/availability/emissions, potential loss of production/product	n/a	No	- disruption to operations, alt fuel cost/availability/emissions, potential loss of production/product	n/a	Yes	Yes
No	- disruption to operations, alt fuel cost/availability/emissions, potential loss of production/product	n/a	No	- disruption to operations, alt fuel cost/availability/emissions, potential loss of production/product	n/a	Yes	Yes
No	- disruption to operations, alt fuel cost/availability/emissions, potential loss of production/product	n/a	No	- disruption to operations, alt fuel cost/availability/emissions, potential loss of production/product	n/a	Yes	Yes
No	- disruption to operations, alt fuel cost/availability/emissions, potential loss of production/product	n/a	No	- disruption to operations, alt fuel cost/availability/emissions, potential loss of production/product	n/a	Yes	Yes
No	- bunker oil 3x more expansive than gas	n/a	No	- not set up to use bunker oil	n/a	Yes	Yes
No	- no response	n/a	No	- no response	n/a	Yes	Yes
No	- disrupts operations and risk of product damage	n/a	No	- incremental cost of alternate fuels not economic	n/a	Yes	Yes
No	- disrupts operations and risk of product damage	n/a	No	- incremental cost of alternate fuels not economic	n/a	Yes	Yes
No	- backup fuel system infrstructure too expensive	n/a	Yes	n/a	25% - 35% reduction	Yes	Yes
No	- operations do not allow for interuptible service due to potential crop loss	n/a	No	- operations do not allow for interuptible service due to potential crop loss	n/a	Yes	Yes
No	- operations cannot accommodate service interruption due to possible crop loss	n/a	No	- operations cannot accommodate service interruption due to possible crop loss	n/a	Yes	Yes
No	- disruption to operations, alt fuel cost/availability/emissions, potential loss of production/product	n/a	No	- disruption to operations, alt fuel cost/availability/emissions, potential loss of production/product	n/a	Yes	Yes
No	- loss of crop	n/a	No	- loss of crop	n/a	Yes	Yes
No	- operations cannot withstand interuption due to crop loss	n/a	No	- operations cannot withstand interuption due to crop loss	n/a	Yes	Yes
No	- operations disruption/crop loss	n/a	No	- operations disruption/crop loss	n/a	Yes	Yes
No	- operations disruption	n/a	No	- operations disruption	n/a	Yes	Yes
No	- not viable/potential crop loss	n/a	No	- not viable/potential crop loss	n/a	Yes	Yes
No	- disruption to operations, alt fuel cost/availability/emissions, potential loss of production/product	n/a	No	- disruption to operations, alt fuel cost/availability/emissions, potential loss of production/product	n/a	Yes	Yes
No	- heating is crucial to operations daily, alternate fuels too expensive to operate on	n/a	No response	- no response	n/a	Yes	Yes
No	- disruption of operations causing a loss to production to supply the Canadian food market	n/a	No	- disruption of operations causing a loss to production to supply the Canadian food market	n/a	Yes	Yes
No	- disruption to operations & cost of alternate fuel	n/a	No	no response	n/a	Yes	Yes
No	- no operations cannot accommodate interruption due to crop loss	n/a	No	- no operations cannot accommodate interruption due to crop loss	n/a	Yes	Yes

Interruptible service as an alternative to new Firm service (Yes/No)	If no, please explain why	If yes, how would you ensure compliance with a service interruption	Would you be more inclined to consider interruptible service over new Firm service if the ability to negotiate lower than posted interruptible rates was available (Yes/No)	If no, please explain why	If yes, please indicate the interruptible distribution delivery rate that would be required for you to consider interruptible service as an alternative to new Firm service ($/m3/day or percentage reduction in the distribution rate)	Has Enbridge Gas discussed energy conservation program offerings with you (Yes/No)	Natural gas conservation (attestation)
No	- disruption to operations & cost of alternate fuel	n/a	No	- no response	n/a	Yes	Yes
No response	- no response	n/a	No response	- no response	No response	Yes	Yes
No	- production will be 365 days/yr and produce will not tolerate one or more days without heating. Loss of production	n/a	No	- interruptible service is not an option for our produce operation cycle (continuous production)	n/a	Yes	Yes
No	- healthcare	n/a	No	- no	n/a	Yes	Yes
No	- our crop is too valuable to risk losing in the event of an interruption	n/a	No	- our crop is too valuable to risk losing in the event of an interruption	n/a	Yes	Yes
No	- our crop is too valuable to risk losing in the event of an interruption	n/a	No	- our crop is too valuable to risk losing in the event of an interruption	n/a	Yes	Yes
No	- our crop is too valuable to risk losing in the event of an interruption	n/a	No	- our crop is too valuable to risk losing in the event of an interruption	n/a	Yes	Yes
No	- live vegetable crops + LT-1 program needs	n/a	No	- fees and penalties are too great on LT-1	n/a	Yes	Yes
No	- no response	n/a	Yes	n/a	20% lower	Yes	Yes
No	- no response	n/a	Yes	n/a	20% lower	Yes	Yes
No	- contractually obligated to provide power to the IESO when called upon, and cannot be interrupted.	n/a	No	- East Windsor Cogen is contractually obligated to provide power to the IESO when called upon, and cannot be interrupted.	n/a	Yes	Yes
No	- no response	n/a	No	- East Windsor Cogen is contractually obligated to provide power to the IESO when called upon, and cannot be interrupted.	n/a	Yes	Yes
No response	- no response	n/a	No response	- no response	No response	Yes	Yes
No response	- no response	n/a	No response	- no response	No response	Yes	Yes
No response	- no response	n/a	No response	- no response	No response	Yes	Yes
No response	- no response	n/a	No response	- no response	No response	Yes	Yes
No	- No, because there is risk to crop and large costs for alternate fuel	n/a	No	- No because the discount is not worth the risk	n/a	Yes	Yes
No	- Interruptible service is not a viable option as it requires firm gas services to support regional reliability in the Southwest Region and future expected growth from the greenhouse and industrial sectors.	n/a	No	- Interruptible service is not a viable option for BBGS operation as it requires firm gas services to support regional reliability in the Southwest Region and future expected growth from the greenhouse and industrial sectors.	n/a	Yes	Yes
Yes	n/a	- Alternate fuel source	Yes	n/a	25% - 35% reduction	Yes	Yes
Yes	n/a	- Alternate fuel source	Yes	n/a	25% - 35% reduction	Yes	Yes
No	- Product processing delays would result in loss of product; no alt fuel system currently installed	n/a	No	The loss in product is more substantial than the potential savings from lower rates.	n/a	Yes	Yes

ENBRIDGE GAS INC.

Answer to Interrogatory from
Federation of Rental-housing Providers of Ontario (FRPO)

INTERROGATORY

Reference:

Exhibit A, Tab 4, Sch. 1, p. 4 and Exhibit B, Tab 1, Sch. 1 and Attachments

Preamble:

EGI evidence states: Since the close of the EOI, Enbridge Gas has continued to engage customers that submitted bids to confirm their interest and negotiate contracts for incremental service. Enbridge Gas is requesting a minimum five-year contract from interested contract rate customers for capacity on the Panhandle System starting in November 2024. This practice is consistent with the methodology of contracting for incremental capacity that was used for the PRP and KTRP projects.

Question(s):

Please confirm that in the Leamington Expansion Project – EB-2012-0431 – Union required greenhouses to sign 10 year contracts with minimum annual volume requirements to support the project.

a) If not confirmed, please explain commitments and terms associated with contracting for that project.

b) Did EGI consider this approach for the Panhandle Regional Expansion?
i) If not, why not?

Response:

Not confirmed.

a) and b)

The commitments and terms of the contracts varied with the number of acre equivalents the customer contracted for. The Leamington Expansion Project was a distribution pipeline where the distribution costs were allocated to the customer/contract, the applicable contract term and if required, the CIAC to achieve

a PI of 1.0 under the E.B.O 188 economic feasibility test for customer-specific distribution facilities.

Distribution facilities (beyond the scope of the Project) may be required to connect certain contract customers to the natural gas system. More specifically, customers who contract for contract rate distribution service in the area may need to install an individual service, main extension, station(s) and in some cases may require local distribution reinforcement to bring sufficient natural gas to their site – all of which are beyond the scope of the Project. These costs will be the responsibility of the customer. When negotiating a contract with each customer, a DCF analysis (per EBO 188) is completed for each individual contract for a term longer than 5 years and up to 20 years.

ENBRIDGE GAS INC.

Answer to Interrogatory from
Federation of Rental-housing Providers of Ontario (FRPO)

INTERROGATORY

Reference:

Exhibit B, Tab 2, Schedule 1, Attachment 1 pg. 1

Question(s):

For the schematic structure provided in Attachment 1, in tabular format, please provide the throughput and direction through:

a) Dover Transmission to the NPS 16 & separately to the NPS 20
b) Leamington North Gate (please add pressure also)
c) Grand Marais Station
d) Sandwich Station
e) Ojibway Measurement
f) Detroit River Crossing

Response:

Please see the response at Exhibit I.FRPO.4 (updated October 3, 2023).

ENBRIDGE GAS INC.

Answer to Interrogatory from
Federation of Rental-housing Providers of Ontario (FRPO)

INTERROGATORY

Reference:

Exhibit B, Tab 2, Schedule 1, Attachment 1 pg. 1

Question(s):

Please provide the information in Attachment 1, including the flows requested in IR#4 above, with the addition of:

a) The proposed 19 km of NPS 36 with demands for:
i) Winter 2024/25
ii) Winter 2033/34 (using Table 1 demands)

Response:

a)

i) Please see Attachment 1 to this response for the proposed 19 km of NPS 36 with demand for Winter 2024/2025.

ii) The proposed 19 km of NPS 36 with demand for Winter 2033/2034 cannot be provided since the modelled system pressures fall extremely low, resulting in model failure (i.e., the model run could not be completed). The scenario is not viable without additional facilities. Therefore, no schematic or flow table can be provided.

With the proposed 19 km of NPS 36 in service as of Winter 2024/2025, it is expected to provide enough capacity through Winter 2028/2029. By Winter 2033/2034, with the Project in place providing the incremental 168 TJ/d, the forecast shortfall is 56 TJ/d.

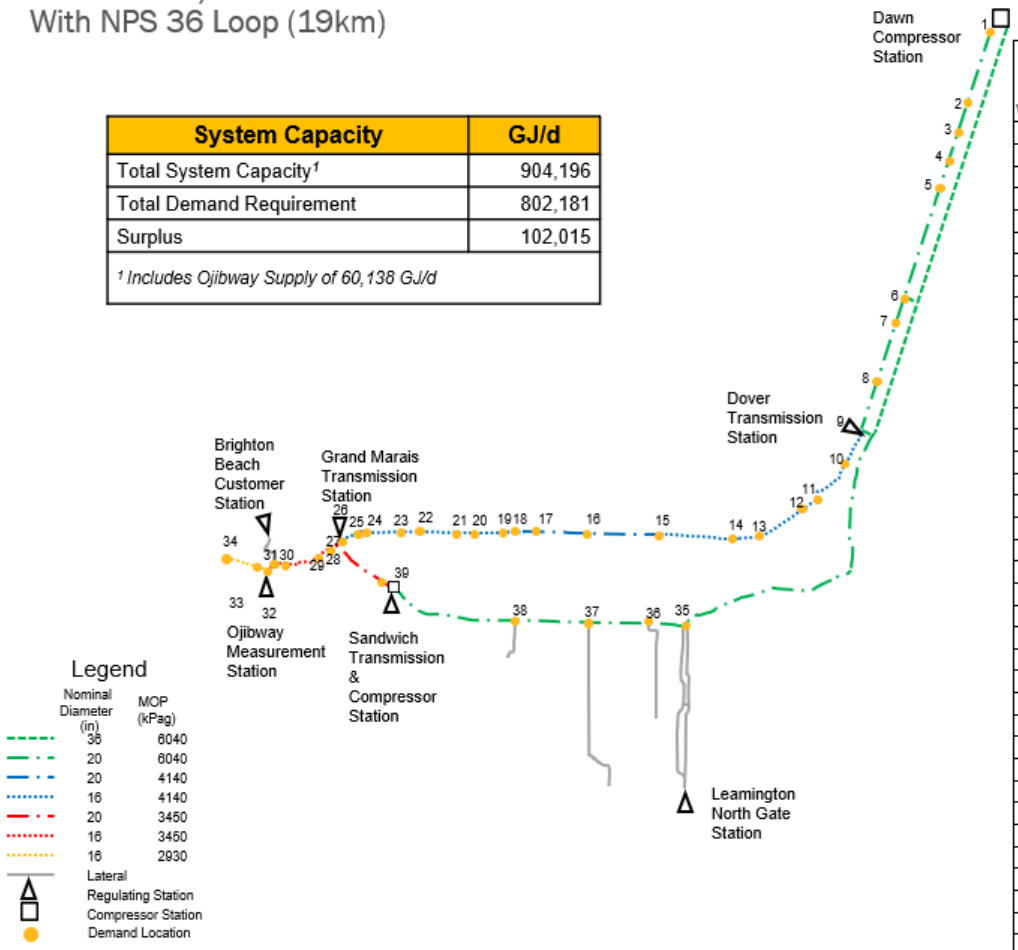
W2024/2025 Proposed 19 km of NPS 36 Schematic and Summary Table

Panhandle Transmission System

Winter Design Day Schematic
Winter 2024/2025
With NPS 36 Loop (19km)

ENBRIDGE

System Capacity	GJ/d
Total System Capacity[1]	904,196
Total Demand Requirement	802,181
Surplus	102,015
[1] Includes Ojibway Supply of 60,138 GJ/d	



W24/25	Station Name	Kilometre Post (km)	Demand (GJ/d)	Pressure (kPag)
1	Dawn / Dawn West Lines	0	20251	5978
2	Tolloch & Mandaumin	4.3	0	5957
3	Chatham Gore Conc 4	10	0	5930
4	Lindsay Tile Yard	12.9	44	5916
5	Tupperville	15.2	3984	5906
6	Dover Centre	27	82442	5842
7	Cartier	29.4	0	5831
8	Bechard	34.9	2110	5808
9	Dover Transmission	40	0	5786
10	Bradley	44.1	0	3930
11	T. N. Lighthouse	48.9	200	3740
12	Tilbury North TO	50.7	2934	3667
13	Tilbury Conc 2	55.8	0	3439
14	Stoney Point	58.7	1282	3304
15	St Joachim	65.4	337	2990
16	Belle River	72.6	4280	2875
17	Puce	77.8	2302	2794
18	Wallace	79.4	131	2765
19	Patillo	80.9	5087	2743
20	Elmstead	83	1650	2616
21	Manning	85.2	7691	2482
22	Lauzon TO	88.9	45805	2259
23	Ford Marentette TO	90.7	2071	2221
24	TransAlta / East Windsor TO	94.2	37220	2177
25	Walker	94.9	38746	2147
26	Grand Marais	97.1	27633	2147
27	NPS 16/20 Interconnect	108.1	0	2143
28	Bruce	109.4	5774	2121
29	Califomia	111.4	17518	2031
30	Titcombe	114.9	7583	1915
31	Brighton Beach and WWP	116.2	129371	1829
32	Ojibway Measurement	116.6	29193	1879
33	Ojibway Valve	117.9	0	1903
34	River Crossing	118.6	0	1919
35	Comber	71.2	170753	4726
36	Mersea	75	44534	4614
37	Kingsville	80	89822	4496
38	Essex	88.1	6986	4413
39	Sandwich Transmission	101.1	14448	4293
Total			802181	

W24/25 Facilities (Existing with Proposed Project)	Throughput	Direction	Requested Pressure
Location	**GJ/d**	**Flow**	**kPag**
Dawn Supply	742,044	Westerly	
Dover Transmission Station to NPS 16	169,371	Westerly	
Dover Transmisssion Station to NPS 20+NPS 36	463,841	Westerly	
Leamington North Gate Station	14,260	South	3630
Grand Marais Station	19,635	Westerly	
Sandwich Station	151,746	Westerly	
Ojibway Measurement to Windsor	60,138	North/South	
Detroit River Crossing (Ojibway Supply)	60,138	Easterly	

ENBRIDGE GAS INC.

Answer to Interrogatory from
Federation of Rental-housing Providers of Ontario (FRPO)

INTERROGATORY

Reference:

Exhibit B, Tab 2, Schedule 1, p. 3, 7 & 9 including Table 1 & Exhibit I.FRPO.7 & .8

Preamble:

EGI evidence states: Two NPS 12 pipelines ("Detroit River Crossing" or "the crossings") connect the NPS 16 Panhandle Line at Ojibway to the Panhandle Eastern Pipeline System ("Panhandle Eastern")2 at the International Border. This interconnection was established in 1947 and is commercially known as Ojibway. The Detroit River Crossing MOP is 2930 kPag.
2 Panhandle Eastern Pipe Line Company, LP is owned by Energy Transfer Equity L.P.

The response to the above interrogatory 7 states: As discussed in Enbridge Gas's most recent Asset Management Plan, Enbridge Gas is planning to replace the existing NPS 12 Detroit River crossings to provide equivalent capacity, and is currently in discussion with Energy Transfer on a joint project to that effect.

We would like to understand more about EGI's review of the potential for increasing supply at Ojibway

Question(s):

Please summarize the contractual agreements that Union Gas/Enbridge Gas Inc. had/have with Energy Transfer as it relates to Panhandle Eastern deliveries to and through Ojibway to the EGI's Panhandle system.

Response:

For contracts held between Enbridge Gas and PEPL as part of the Company's Gas Supply Plan, please see the response to Exhibit I.FRPO.6.

Please see the information below for a summary of contracts held between Enbridge Gas and Rover.

Customer Name	Agreement Name	Receipt Point	Delivery Point	Quantity (GJ)	Start Date	Expiry Date
Rover Pipeline LLC	C10113	Ojibway	Dawn	36,927	Nov 1, 2017	Oct 31, 2025

ENBRIDGE GAS INC.

Answer to Interrogatory from
Federation of Rental-housing Providers of Ontario (FRPO)

INTERROGATORY

Reference:

Exhibit B, Tab 2, Schedule 1, p. 3, 7 & 9 including Table 1 & Exhibit I.FRPO.7 & .8

Preamble:

EGI evidence states: Two NPS 12 pipelines ("Detroit River Crossing" or "the crossings") connect the NPS 16 Panhandle Line at Ojibway to the Panhandle Eastern Pipeline System ("Panhandle Eastern")2 at the International Border. This interconnection was established in 1947 and is commercially known as Ojibway. The Detroit River Crossing MOP is 2930 kPag.
2 Panhandle Eastern Pipe Line Company, LP is owned by Energy Transfer Equity L.P.

The response to the above interrogatory 7 states: As discussed in Enbridge Gas's most recent Asset Management Plan, Enbridge Gas is planning to replace the existing NPS 12 Detroit River crossings to provide equivalent capacity, and is currently in discussion with Energy Transfer on a joint project to that effect.

We would like to understand more about EGI's review of the potential for increasing supply at Ojibway

Question(s):

Please provide updates from internal discussions on replacement of this crossing.

a) Please provide the most recent determination of cost estimate for replacing the pipeline across the Detroit River.

Response:

Enbridge Gas is continuing to evaluate the replacement of the two NPS 12 river crossing pipelines with a single pipeline that can provide the equivalent capacity.

a) Enbridge Gas estimates the total facility costs to replace the Detroit River Crossing to be approximately $50 MM which would be shared with PEPL.

ENBRIDGE GAS INC.

Answer to Interrogatory from
Federation of Rental-housing Providers of Ontario (FRPO)

INTERROGATORY

Reference:

Exhibit B, Tab 2, Schedule 1, p. 3, 7 & 9 including Table 1 & Exhibit I.FRPO.7 & .8

Preamble:

EGI evidence states: Two NPS 12 pipelines ("Detroit River Crossing" or "the crossings") connect the NPS 16 Panhandle Line at Ojibway to the Panhandle Eastern Pipeline System ("Panhandle Eastern")2 at the International Border. This interconnection was established in 1947 and is commercially known as Ojibway. The Detroit River Crossing MOP is 2930 kPag.
2 Panhandle Eastern Pipe Line Company, LP is owned by Energy Transfer Equity L.P.

The response to the above interrogatory 7 states: As discussed in Enbridge Gas's most recent Asset Management Plan, Enbridge Gas is planning to replace the existing NPS 12 Detroit River crossings to provide equivalent capacity, and is currently in discussion with Energy Transfer on a joint project to that effect.

We would like to understand more about EGI's review of the potential for increasing supply at Ojibway

Question(s):

Please provide copies of all communications with Energy Transfer on the crossing replacement or changes to the throughput capacity.

a) Please provide any commitments to cost sharing to replace the river crossing.

b) Please provide the most recent determination of cost estimate for increasing capacity across the Detroit River.

Response:

Enbridge Gas is currently engaged in discussions with Energy Transfer to establish the purpose, need and timing of a jointly owned replacement project which assumes that the current capacity provided through the Detroit River Crossing is a like-for-like replacement that does not add incremental capacity. Communications regarding a like-for-like replacement do not impact the Project.

a) There are no firm commitments for cost sharing associated with the river crossing replacement. Currently the Asset Management Plan is based on Enbridge Gas owning 60% of the replacement facilities, based on estimated length within Canada.

b) At this time there is no plan to increase the capacity of the Detroit River Crossing. As stated in Enbridge Gas's most recent Asset Management Plan, Enbridge Gas is planning to replace the existing two NPS 12 Detroit River Crossings to provide equivalent capacity.

   Exhibit I.FRPO.8 requested that Enbridge Gas provided a scenario of the potential requirements to increase the capacity of the Detroit River Crossing. Please see Table 1 at the response to Exhibit I.FRPO.8 (updated October 3, 2023) for the most recent cost estimates for this scenario.

ENBRIDGE GAS INC.

Answer to Interrogatory from
Federation of Rental-housing Providers of Ontario (FRPO)

INTERROGATORY

Reference:

Exhibit B, Tab 2, Schedule 1, p. 3, 7 & 9 including Table 1 & Exhibit I.FRPO.7 & .8

Preamble:

EGI evidence states: The Panhandle System's ability to accept supply at Ojibway on a firm basis is limited by the physical Panhandle System assets and the minimum Panhandle Market available to consume gas between Ojibway and Dawn. The minimum firm Panhandle Market is limited by the base load summer Windsor market demands and the capacity of Sandwich Compressor to compress gas from Windsor towards Dawn. The capacity of the Sandwich Compressor is 80 to 88 TJ/d and limited by the fixed amount of horsepower available. Due to the increased amount of heat load, the winter Windsor market is larger than the summer Windsor market. The Panhandle System's ability to accept supply at Ojibway is limited to 108 TJ/d in the summer and 126 TJ/d in the winter.6

Furthermore, incremental supply deliveries at Ojibway from Panhandle Eastern can only **efficiently serve demands** in the far west end of the Panhandle Market in Windsor between Ojibway, Grand Marais Station and Sandwich Compressor. **emphasis added**

Question(s):

Please confirm the bolded section is described in Exhibit C, Tab 1, Sch. 1, p. 11.

a) Please include what demands could be served inefficiently?

Response:

Confirmed. Serving the Leamington Kingsville market using Ojibway supply is not efficient as it requires more supply from Ojibway than can be delivered to the Leamington Kingsville market on design day. It is, therefore, inefficient to serve the Leamington Kingsville market with Ojibway supply.

a) Demands of the Panhandle Market east of Sandwich Compressor and east of Grand Marais Station would be served inefficiently.

ENBRIDGE GAS INC.

Answer to Interrogatory from
Federation of Rental-housing Providers of Ontario (FRPO)

INTERROGATORY

Reference:

Exhibit B, Tab 2, Schedule 1, p. 3, 7 & 9 including Table 1 & Exhibit I.FRPO.7 & .8

Preamble:

EGI evidence states: The Panhandle System's ability to accept supply at Ojibway on a firm basis is limited by the physical Panhandle System assets and the minimum Panhandle Market available to consume gas between Ojibway and Dawn. The minimum firm Panhandle Market is limited by the base load summer Windsor market demands and the capacity of Sandwich Compressor to compress gas from Windsor towards Dawn. The capacity of the Sandwich Compressor is 80 to 88 TJ/d and limited by the fixed amount of horsepower available. Due to the increased amount of heat load, the winter Windsor market is larger than the summer Windsor market. The Panhandle System's ability to accept supply at Ojibway is limited to 108 TJ/d in the summer and 126 TJ/d in the winter.6

Furthermore, incremental supply deliveries at Ojibway from Panhandle Eastern can only efficiently serve demands in the far west end of the Panhandle Market in Windsor between Ojibway, Grand Marais Station and Sandwich Compressor. emphasis added

Question(s):

Please provide the cost estimate to modify the Sandwich compressor station to increase the Ojibway receipts to the current capacity of 217 TJ/d.

a) Please identify any key thresholds of capacity that could reached with limited cost to increase Sandwich above 88 TJ.

b) Please explain why gas could not flow east past Grand Marais toward Dawn on the NPS 16.

i) Please provide an estimate for any changes that could be done at Grand Marais to substantially increase the market for Ojibway deliveries.

c) How much summer and winter market will contracted demand at Stellantis and other customers in the boundaries identified by EGI (Ojibway, Grand Marais, Sandwich)

Response:

Please see the response at Exhibit I.FRPO.8 (updated October 3, 2023) for more information regarding the issue being explored by FRPO. The cost estimate to install two 3800 horsepower Compression Units at Sandwich Station is $144M.

a) The capacity of the compressor is limited by horsepower, and there is no additional capacity above 88 TJ/d that could be attained.

b) The gas could not reliably flow east of Grand Marais Station because the section of pipe east of Grand Marais Station operates at a higher pressure (4140 kPa) than the pipe west of Grand Marais Station (3450 kPa).

    i. There is no option to increase capacity at Grand Marias. In order to increase supply imports from Ojibway, Enbridge Gas would need to increase the capacity of the Detroit River Crossing, loop or upsize the Panhandle NPS 16 from Ojibway to Sandwich and add further compression at Sandwich station. For discussion regarding increasing Ojibway imports, please see the response to Exhibit.I.FRPO.8 (updated October 3, 2023). This does not address the facilities that are required on the PEPL system to deliver the necessary volume and pressure.

c) The minimum firm Panhandle market in the Summer and Winter is calculated using historical information based on actual customer consumption. Therefore, Enbridge Gas is unable to calculate changes in the minimum firm market.

ENBRIDGE GAS INC.

Answer to Interrogatory from
Federation of Rental-housing Providers of Ontario (FRPO)

INTERROGATORY

Reference:

Exhibit I.PP.16

Question(s):

Please update the above interrogatory with updated alternative assessments.

Response:

Please see the response at Exhibit I.PP.16 (updated October 3, 2023).

ENBRIDGE GAS INC.

Answer to Interrogatory from
Federation of Rental-housing Providers of Ontario (FRPO)

INTERROGATORY

Reference:

Exhibit C, Tab 1, Schedule 1, p. 8-9 and Table 3

Preamble:

EGI evidence states: While either an NPS 30 or NPS 36 to Richardson Sideroad would be sufficient to meet the 5-year growth forecast, the NPS 36 pipeline alternative was selected as it is the most cost-effective option with the lowest cost per unit of capacity (see Table 3 below).

Question(s):

Who does EGI propose pay for the upsizing cost for the NPS 36?

a) Please justify this proposal including any recent Board approvals that support such an approach.

b) Please provide the Overheads that are stipulated as not included in the footnotes to Table 3.

i) What decisions or rules preclude the inclusion of overheads in the assessment of Net Present Value?

ii) Please provide Table 3 including Overheads.

Response:

a) Enbridge Gas is not seeking cost recovery of the Project as part of this application.[1]

As per Exhibit C, Tab 1, Schedule 1, Page 8, Paragraph 27: “the NPS 36 pipeline alternative was selected as it is the most cost-effective option with the lowest cost per unit of capacity”. The NPS 36 is the most appropriate alternative from a cost-effectiveness standpoint. Additional benefits regarding the NPS 36, which contribute to it being the most appropriate alternative, can be found at the response to Exhibit

[1] Exhibit A, Tab 3, Schedule 1, para. 13.

I.EP.8. Additionally, Enbridge Gas forecasts that the incremental capacity provided by the Project to be utilized by Winter 2028/2029.

b) Indirect overheads for the "19 km Loop with NPS 36" is $68.8 million as per Exhibit E, Tab 1, Schedule 2, Line 8. Indirect overheads for the "19 km Loop with NPS 30" is $65.7 million.

i) Please see the response to Exhibit I.STAFF.15, part a).

ii) Please see the information below for the Net Present Value including indirect overheads.

Potential Alternative	Incremental Capacity (TJ/d)	Costs ($ Million)	Net Present Value ($ Million)	Cost per Unit of Capacity ($/TJ/d)
Facility Alternative: Looping of NPS 20 Panhandle				
Proposed Project 19 km Loop with NPS 36	168	$358.0	$(207.5)	$2.13
19 km Loop with NPS 30	160	$342.7 (1)	$(196.2)	$2.14

(1) The estimated cost of $342.7 M for an NPS 30 alternative is based on a November 1, 2024 in-service date, for the purpose of displaying a direct comparator to the proposed Project. The actual installation of an NPS 30 alternative would result in a November 1, 2025 in-service date and as such the estimated cost would be higher due to inflationary impacts.

ENBRIDGE GAS INC.

Answer to Interrogatory from
Federation of Rental-housing Providers of Ontario (FRPO)

INTERROGATORY

Reference:

Exhibit C, Tab 1, Schedule 1, p.11-13

Preamble:

EGI evidence states: There are no commercial services available to be contracted at Ojibway with third parties that can fully eliminate the forecasted 5-year Panhandle System shortfall. Of the total 108 TJ/d of capacity operationally available to be delivered to Ojibway on an annual basis, 60 TJ/d is already utilized by Enbridge Gas to serve firm design day demands. Of the remaining 48 TJ/d of capacity, 37 TJ/d is contracted by ROVER until October 31, 2025 with renewal rights. As outlined in Exhibit B, Tab 2, Schedule 1 and Exhibit B, Tab 3, Schedule 1, Enbridge Gas currently estimates that only 18 - 21 TJ/d of incremental firm annual capacity is available for deliveries to Ojibway into the Panhandle System.

Question(s):

What precludes working with Energy Transfer to provide an exchange service, even a seasonal winter service, between Ojibway and Dawn.

Response:

Please see Attachment 1 to the response at Exhibit I.FRPO.7 for correspondence between Enbridge Gas and Energy Transfer, regarding Energy Transfer's ability to participate in the Request for Proposal (RFP) for delivered service at Ojibway as a supply-side alternative for the proposed Project.

Enbridge Gas has confirmed that Energy Transfer is not able to obligate deliveries (consistent with previous discussions as contemplated in the Panhandle Reinforcement Project proceeding).

Enbridge Gas developed the RFP for the firm exchange service to be inclusive of ex-franchise shippers with capacity on the PEPL system, in addition to shippers holding firm C1 transportation capacity on the Enbridge Gas Ojibway to Dawn path of the Panhandle Transmission System.

ENBRIDGE GAS INC.

Answer to Interrogatory from
Federation of Rental-housing Providers of Ontario (FRPO)

INTERROGATORY

Reference:

Exhibit C, Tab 1, Schedule 1, p.11-13

Preamble:

EGI evidence states: Ojibway supply does not flow directly into the Leamington-Kingsville market, which can only be served by Ojibway through displacement, i.e., additionalWindsor volume served by Ojibway means less Windsor market volume served by the NPS 20 Panhandle Line.

Question(s):

Please describe what issues or concerns EGI would have by simply using displacement to “free-up” additional supply into the Leamington-Kingsville market.

Response:

Enbridge Gas considered incremental supply deliveries at Ojibway, and the displacement that would result, as a project alternative. This alternative requires additional facilities at a cost that exceeds that of the proposed Project. Please refer to Exhibit C, Tab 1, Schedule 1, Pages 11-14 and the response at Exhibit I.FRPO.22 for more details.

Enbridge Gas reviewed hybrid alternatives as part of the alternatives assessment and concluded that the hybrid scenarios are not economic relative to the proposed Project. Please refer to Exhibit C, Tab 1, Schedule 1, Page 16, Paragraphs 52-61 for more information regarding the hybrid alternatives.

ENBRIDGE GAS INC.

Answer to Interrogatory from
Federation of Rental-housing Providers of Ontario (FRPO)

INTERROGATORY

Reference:

Exhibit C, Tab 1, Schedule 1, p.11-13

Preamble:

EGI evidence states: The Leamington-Kingsville market has a peak hour factor of 1.2, which means that the demand pattern throughout the day does not match the constant volumetric supply rate of Ojibway. In the absence of incremental facilities along the NPS 20 Panhandle Line, there is no mechanism to manage the intra-day peaks in the incremental demand in the Leamington-Kingsville market.

Question(s):

Please describe why linepack could not absorb these differences in supply and demand.

a) Please provide transient simulation results that show that linepack could not provide the ability to absorb the swings.
   i) Please ensure that the simulation is optimized to reduce pressures in the summer to maximize the chance of success.

Response:

Linepack is currently being used to serve the fluctuations in demand over the course of the design day. Linepack is used to serve the peak hour demand while reducing the facilities required to serve the average daily demand. Additional supply at Ojibway, equal to the incremental daily demand, does not increase the Panhandle System's linepack. This situation causes an imbalance when the supply arrives at a constant rate in comparison to the 1.2 peak hour in Leamington, as an example. To overcome this imbalance, the following would be required to serve the incremental demand; supplies greater than the incremental demand and/or additional facilities.

a), i)

The Panhandle System is modelled using transient analysis. Transient analysis utilizes the systems linepack to manage changes in demand throughout the day. Please refer to the response at Exhibit.I.FRPO.29 including schematics.

ENBRIDGE GAS INC.

Answer to Interrogatory from
Federation of Rental-housing Providers of Ontario (FRPO)

INTERROGATORY

Reference:

Exhibit C, Tab 1, Schedule 1, p.11-13

Preamble:

EGI evidence states: The distribution systems that supply the Leamington-Kingsville market are fed from long (10 to 18 km) smaller diameter laterals that require an increase in upstream pressure (along the NPS 20 Panhandle Line) in order to provide the necessary incremental capacity to the market. An increase in Ojibway supply, corresponding to a decrease in the Windsor market demand being fed from the NSP 20 Panhandle Line, does not result in an increase in pressure along the NPS 20 Panhandle Line sufficient to service a corresponding increase in demand in the Leamington-Kingsville market.

Question(s):

Using output from a simulations for both summer and winter, please provide a schematic which shows this effect.

a) Please define the assumptions used to optimize the system.

Response:

Enbridge Gas used the scenario at Exhibit I.ED.6, part a) (i) to illustrate the effect that an increase in Ojibway supply does not result in an increase in pressure along the NPS 20 Panhandle Line that is sufficient to serve the corresponding increase in demand in the Leamington-Kingsville market.

See the schematics provided at Attachment 1 to this response (“Base Case: 60 TJ/d (typical import) at Ojibway Supply) and Attachment 2 to this response (“Scenario 1: 81 TJ/d (+21 TJ/d incremental import) at Ojibway Supply).

With the additional supply at Ojibway (+21 TJ/d), the Panhandle Transmission system can only serve an additional 9.2 TJ/d of demands within the Leamington-Kingsville market when compared to the base case.

In addition to the system assumptions for design day network analysis outlined in Exhibit B, Tab 2, Schedule 1, Page 5-6, Sandwich Transmission Station is used to optimize the Panhandle Transmission system pressure in Windsor relative to the system constraints. The Sandwich Transmission Station flows additional volumes from the NPS 20 Panhandle Line into the Windsor market as Ojibway supplies and the NPS 16 Panhandle Lines alone cannot serve the demands on design day.

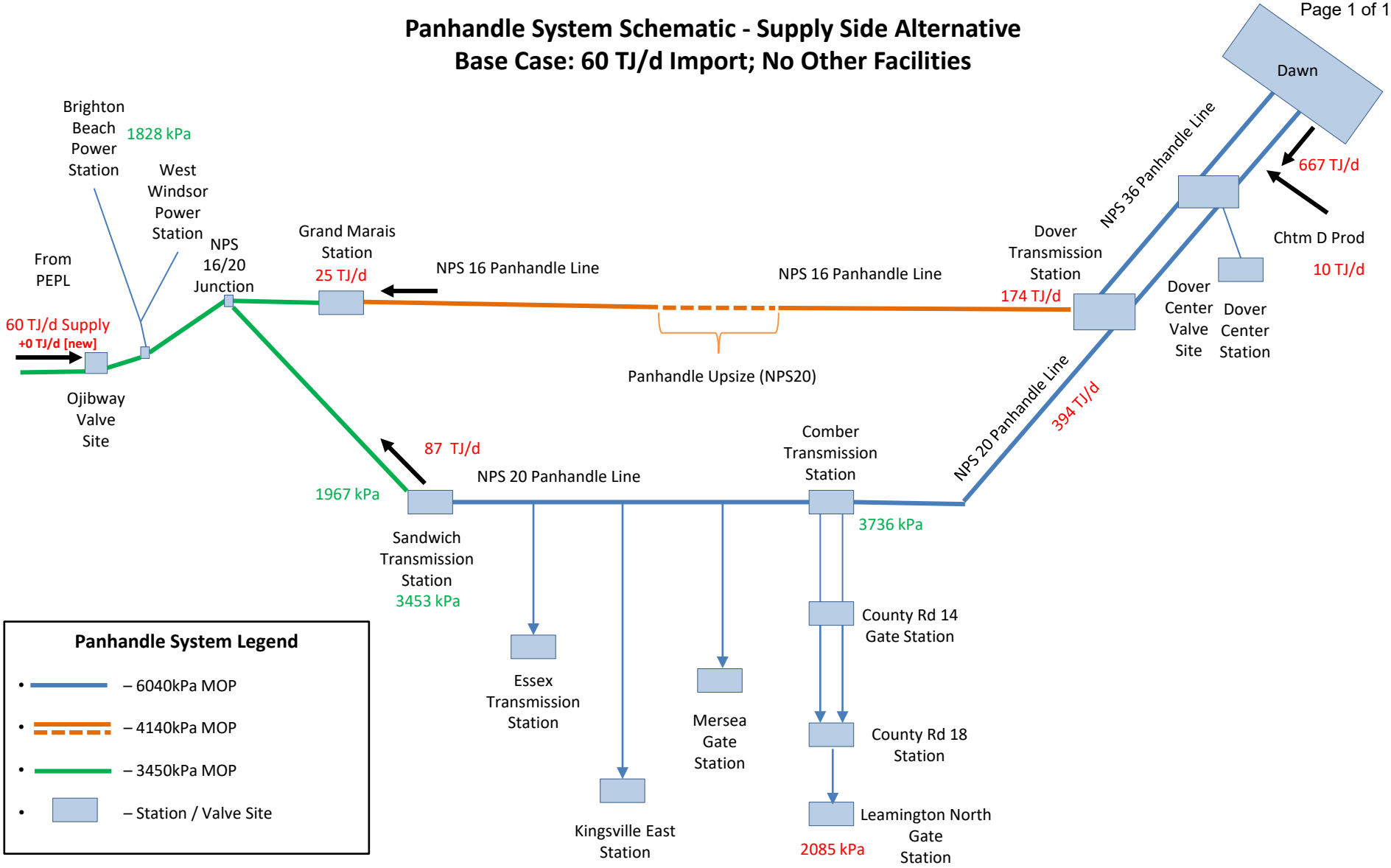
Comparing results shown in the Base Case (Attachment 1) and Scenario 1 (Attachment 2), by increasing the Ojibway supply by 21 TJ/d reduces the need for approximately 21 TJ/d to flow through Sandwich Transmission from the NPS 20 Panhandle Line. Under this scenario, with less volume required from the NPS 20 Panhandle Line the NPS 20 Panhandle has an additional 117 kPag available at Comber Transmission to serve the Leamington-Kingsville market. If all incremental demands are assumed to be served from the Leamington North Lines, the additional 117 kPag at Comber Transmission can only serve an incremental 9.2 TJ/d.

Therefore, an increase in Ojibway supply offsets the amount of volume required to serve the Windsor market from the NPS 20 Panhandle Line approximately one-to-one. However, this displacement of approximately 21 TJ/d does not result in a pressure increase along the NPS 20 Panhandle (117 kPag as stated above) that is sufficient to serve the corresponding increase in demand in the Leamington-Kingsville market as a result of longer, smaller diameter laterals that feed the area.

Summer is not relevant regarding the Panhandle design day analysis.

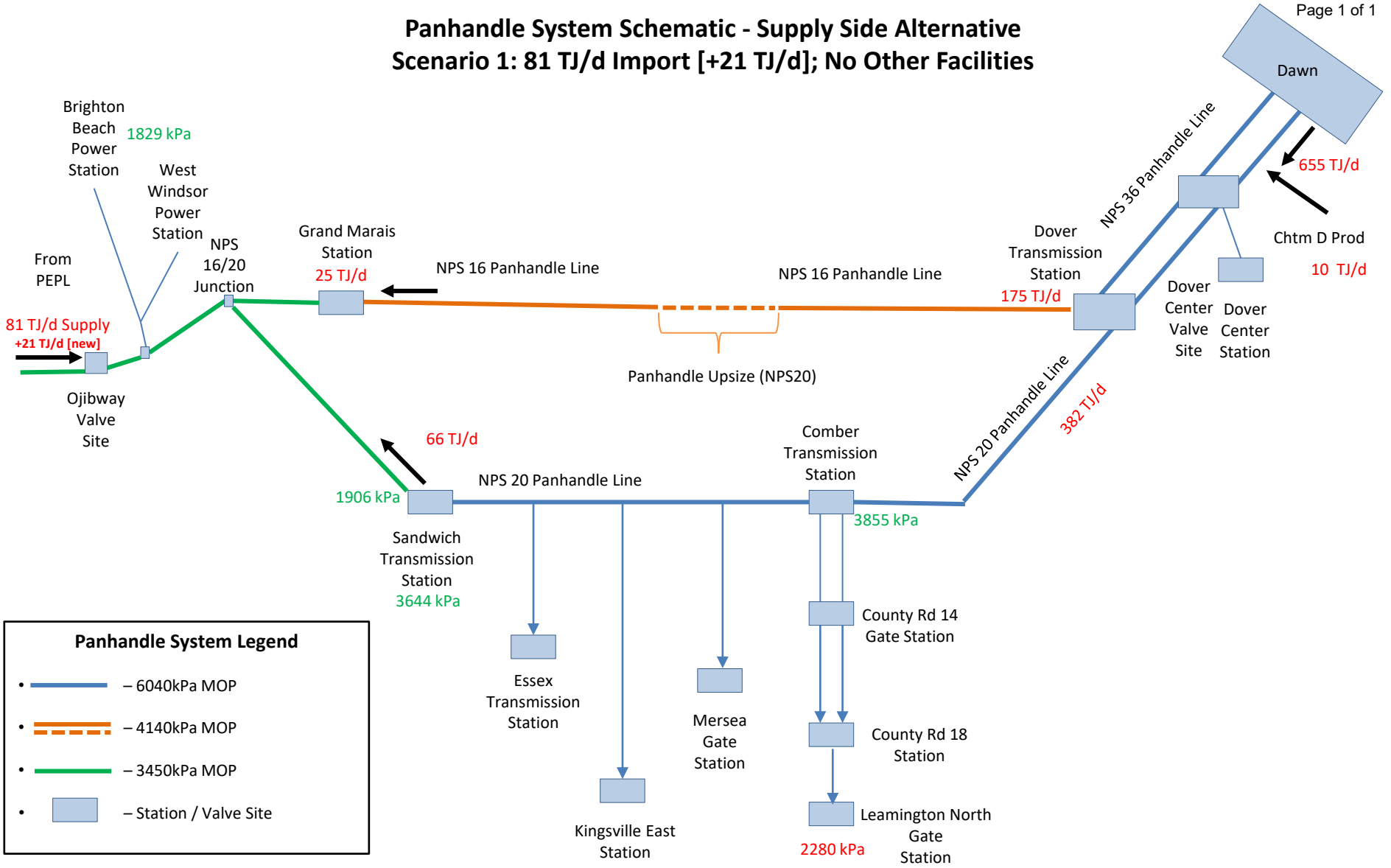
Panhandle Regional Expansion Project

Panhandle System Schematic - Supply Side Alternative
Base Case: 60 TJ/d Import; No Other Facilities



Panhandle Regional Expansion Project

Panhandle System Schematic - Supply Side Alternative
Scenario 1: 81 TJ/d Import [+21 TJ/d]; No Other Facilities



ENBRIDGE GAS INC.

Answer to Interrogatory from
Federation of Rental-housing Providers of Ontario (FRPO)

INTERROGATORY

Reference:

Exhibit C, Tab 1, Schedule 1, p.11-13

Preamble:

EGI evidence states: It is not possible to address the 5-year system shortfall of 156 TJ/d with Ojibway deliveries alone because the volume required would greatly exceed the physical import capability at Ojibway.

Question(s):

Further to the answers provided above, with the system enhancements and pressure setting optimized, please indicated the amount of the 156 TJ/d that could be served from Ojibway.

a) Please provide the resulting schematic showing the pressures.

b) Please re-run the length of NPS 36 needed to serve the remaining 156 TJ/d assuming all of the ancillary station work is completed in conjunction.

Response:

a) and b)
Enbridge Gas evaluated similar scenarios as part of the Hybrid Alternatives (please see Exhibit C, Tab 1, Schedule 1, Pages 16-19). The first Hybrid Alternative used the 21 TJ/d of Ojibway supply and reduced the length of the NPS 36 loop to provide equivalent system capacity as the proposed Project (168 TJ/d). The second Hybrid Alternative explored ending the NPS 36 loop one road to the east of Richardson Sideroad, on Wheatley Sideroad (total loop length of 16.20 km for only 153 TJ/d of incremental capacity).

The results from the requested scenario to meet the 156 TJ/d of incremental 5-year shortfall is provided at Attachment 1 to this response.

The amount of the 156 TJ/d that could be served from Ojibway is 21 TJ/d. The length of NPS 36 needed to serve the remaining capacity is 16.8 km. The 16.8 km would end the loop in the middle of a field without road access.

The schematic of the updated hybrid scenario showing the pressures is provided at Attachment 1 to this response.

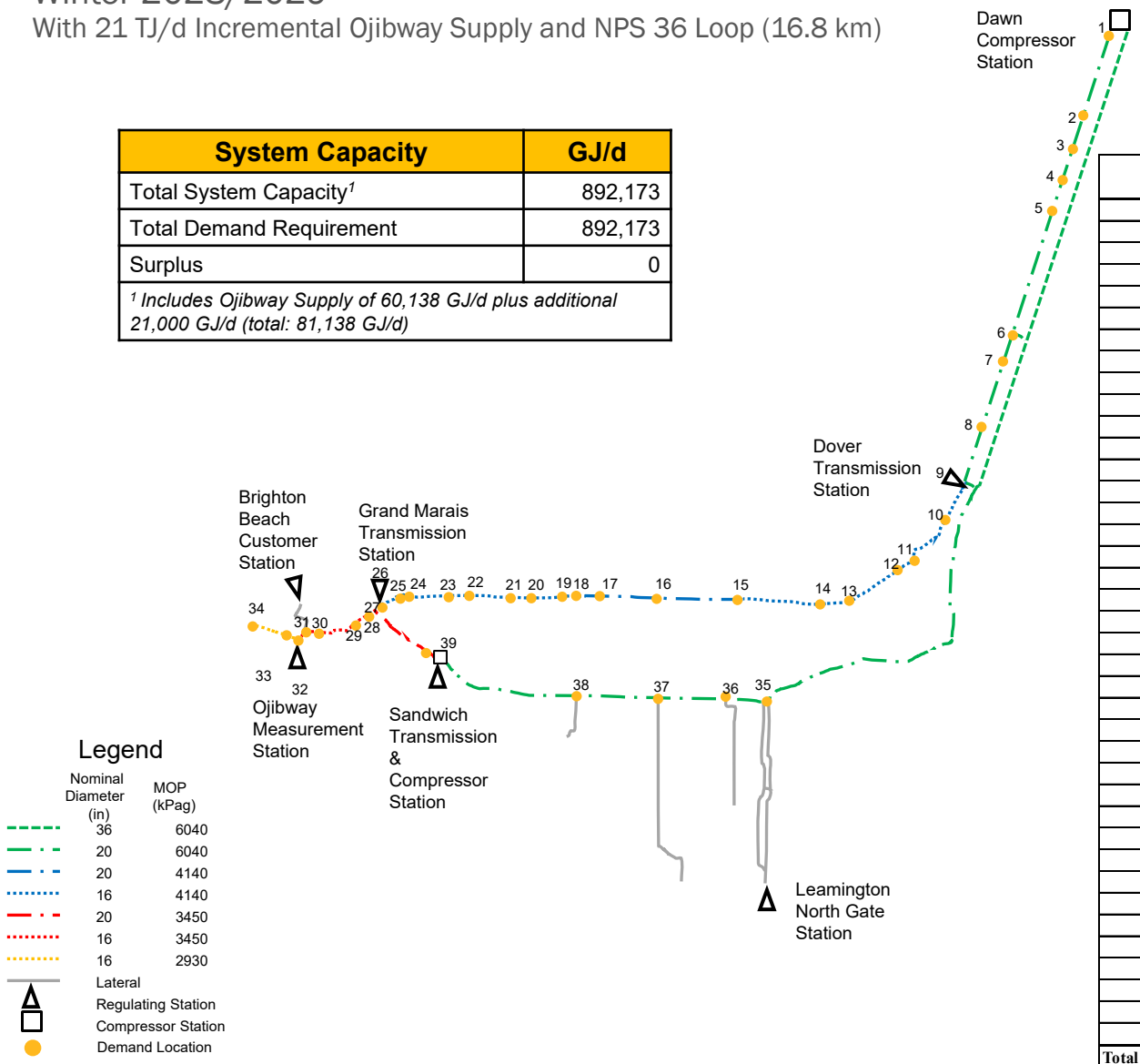
Panhandle Transmission System

Winter Design Day Schematic

Winter 2028/2029

With 21 TJ/d Incremental Ojibway Supply and NPS 36 Loop (16.8 km)

System Capacity	GJ/d
Total System Capacity[1]	892,173
Total Demand Requirement	892,173
Surplus	0
[1] Includes Ojibway Supply of 60,138 GJ/d plus additional 21,000 GJ/d (total: 81,138 GJ/d)	



	Station Name	Kilometre Post (km)	Demand (GJ/d)	Pressure (kPag)
1	Dawn / Dawn West Lines	0	20547	6040
2	Tolloch & Mandaumin	4.3	0	6015
3	Chatham Gore Conc 4	10	0	5984
4	Lindsay Tile Yard	12.9	44	5967
5	Tupperville	15.2	4239	5955
6	Dover Centre	27	83489	5880
7	Cartier	29.4	0	5868
8	Bechard	34.9	2117	5840
9	Dover Transmission	40	0	5813
10	Bradley	44.1	0	3926
11	T. N. Lighthouse	48.9	205	3731
12	Tilbury North TO	50.7	3001	3656
13	Tilbury Conc 2	55.8	0	3420
14	Stoney Point	58.7	1316	3281
15	St Joachim	65.4	346	2955
16	Belle River	72.6	4394	2835
17	Puce	77.8	2364	2751
18	Wallace	79.4	135	2721
19	Patillo	80.9	5202	2697
20	Elmstead	83	1694	2565
21	Manning	85.2	7897	2424
22	Lauzon TO	88.9	46596	2191
23	Ford Marentette TO	90.7	2126	2150
24	TransAlta / East Windsor TO	94.2	61521	2101
25	Walker	94.9	39367	2076
26	Grand Marais	97.1	28337	2077
27	NPS 16/20 Interconnect	108.1	0	2106
28	Bruce	109.4	10801	2086
29	California	111.4	17951	2009
30	Titcombe	114.9	7681	1916
31	Brighton Beach and WWP	116.2	137123	1831
32	Ojibway Measurement	116.6	29661	1889
33	Ojibway Valve	117.9	0	1930
34	River Crossing	118.6	0	1957
35	Comber*	71.2	194282	4147
36	Mersea	75	67615	3988
37	Kingsville	80	90207	3822
38	Essex	88.1	7101	3703
39	Sandwich Transmission	101.1	14813	3526
Total			**892173**	

*Comber is upstream of the Leamington North Gate Station. The modelled minimum inlet pressure to the Leamington North Gate Station is 2280 kPag which is just above the minimum inlet pressure constraint of 2275 kPa.

ENBRIDGE GAS INC.

Answer to Interrogatory from
Federation of Rental-housing Providers of Ontario (FRPO)

INTERROGATORY

Reference:

Exhibit C, Tab 1, Schedule 1, p.17-18

Preamble:

We understand that EGI uses a 40 year term to equate the term of the exchange to the presumed economic life of the pipe, however, this approach minimizes the potential for reductions in demand in the term.

Question(s):

Notwithstanding EGI's approach, please run economics that use the exchange for 10 years reducing the length of reinforcement required with the assumption that there is a 15 TJ reduction in expected demand thus precluding any additional pipe and elimination of the exchange service in year 10.

Response:

FRPO's request appears to rely on the assumption that 15 TJ/d of demand will not be needed after year 10 of the Project. This assumption appears to be arbitrary (both in terms of the amount of the demand reduction and the timing of the demand reduction) and is not supported by Enbridge Gas's demand forecast.

In an effort to be responsive, please see the requested information below.

Potential Alternative	Costs ($ Million)	NPV ($ Million)
Hybrid Alternative: 17.86 km NPS 36 and 21 TJ/d Ojibway to Dawn Exchange	*Facility* $351.0	$(173.7)
	O&M $4.2 Annually $(32.0) NPV over a 10-year term	
Hybrid Alternative: 16.20 km (i.e., Wheatley Road end-point) NPS 36 and 21 TJ/d Ojibway to Dawn Exchange	*Facility* $330.5	$(165.6)
	O&M $4.2 Annually $(32.0) NPV over a 10-year term	

(1) The estimated O&M costs are based on the bid received in the RFP. The bid stated pricing is subject to refresh based on the market conditions at the timing of contracting.

The proposed Project has an NPV of $(153.5). The scenarios request by FRPO result in NPVs of $(173.7) and $(165.6) and are therefore less economic than the proposed Project.

ENBRIDGE GAS INC.

Answer to Interrogatory from
Federation of Rental-housing Providers of Ontario (FRPO)

INTERROGATORY

Reference:

Exhibit C, Tab 1, Schedule 1, p. 20

Preamble:

EGI evidence states: In 2021, Enbridge Gas engaged Posterity Group ("Posterity") to evaluate whether an ETEE IRPA could viably meet the identified system need or reduce the scope of the facilities that would otherwise be required. This alternative examined the extent to which the proposed Project, could be eliminated or reduced through investment in ETEE. Due to the timing of the identified system need, this alternative would require a supply-side solution to bridge the gap between the year that the system is constrained and the year that the full ETEE reductions would be realized. However, as noted below, the ETEE alternative cannot meet the required peak demand reduction.

Question(s):

The above reference assumes a supply side solution is necessary. Please provide EGI's views on a scenario where the Board requires the implementation of directive to provide interruptible service for incremental demands until sufficient demand reduction is implemented to allow interruptible customers to move to firm unless the customer wants to pay for the costs to make their service firm.

Response:

As per Exhibit B, Tab 1, Schedule 1, Paragraphs 28 – 29 and 31, customers were provided the opportunity to convert firm service to interruptible service, and invited to indicate whether they would be more inclined to consider interruptible service over new firm service if the ability to negotiate lower than posted interruptible rates was available. Customers continue to seek firm service and express concern regarding interruptible service for their needs (please see Attachment 1 at Exhibit I.FRPO.15 for customer responses regarding the matter).

Implementation of an interruptible service directive (and effectively restricting customers from contracting firm service) would limit customer choice related to their needs and, for this Project specifically, would likely mean that customers would be required to choose

between taking on financial and operational risk beyond their risk tolerance threshold, not expanding their business, or moving their business to another jurisdiction.

ENBRIDGE GAS INC.

Answer to Interrogatory from
Federation of Rental-housing Providers of Ontario (FRPO)

INTERROGATORY

Reference:

Exhibit D, Tab 1, Schedule 1, p. 1

Preamble:

EGI evidence states: Enbridge Gas will also construct ancillary measurement, pressure regulation and station facilities within the Township of Dawn Euphemia and in the Municipality of Chatham-Kent.

We would like to understand more about the work referred to in the above sentence.

Question(s):

For each station that EGI proposes to be modified, please provide:

a) A description of the work

b) Current design parameters
   i) Inlet pressure: maximum and minimum
   ii) Outlet pressure: maximum and minimum
   iii) Design day flow (with current peak day demands)
   iv) Maximum Flow available: Minimum Pressure in and Maximum Pressure out

c) Design parameters after proposed work is completed
   i) Inlet pressure: maximum and minimum
   ii) Outlet pressure: maximum and minimum
   iii) Design day flow (with current peak day demands)
   iv) Maximum Flow available: Minimum Pressure in and Maximum Pressure out

Response:

There are two stations being modified and one station being added. Each station is listed below and described at Exhibit D, Tab 1, Schedule 1 Page 3 - 4.

- Dawn Compressor Station – Modified
- Dover Transmission Station – Modified
- Richardson Station – New

Dawn Compressor Station
Location: Township of Dawn-Euphemia

a) Description of Work:

- Tie proposed NPS 42 header into existing NPS 42 Trafalgar header in the Dawn South Yard to feed into Panhandle Pipelines (NPS 20 and NPS 36).
- Install new NPS 10 and NPS 20 pressure control runs on new NPS 42 header that is heading toward Dawn Metering & Odorization to feed into Panhandle pipelines (NPS 20 and NPS 36).
- Install approximately 1400 meters of NPS 42 header across the Dawn South Yard to take feed from NPS 42 Trafalgar header and flow into Panhandle pipelines (NPS 20 and NPS 36).
- New NPS 30 (for high flow) and NPS 8 (for low flow) Ultrasonic Flow Meters on Panhandle NPS 36 pipeline
- New NPS 20 (for high flow) and NPS 6 (for low flow) Ultrasonic Flow Meters on Panhandle NPS 20 pipeline
- New Odourant Building to odorize gas in Panhandle NPS 36 and 20 pipelines
- New Gas Chromatograph Building
- Over pressure protection system on NPS 42 header that is coming from Dawn South Yard

b) Current Design Parameters:

Item No.	Parameter Description	Minimum	Maximum
i	Inlet Pressure [kPag]	4895	6040
ii	Outlet Pressure [kPag]	4827	6040
iii	W22/23 Design Day Flows [TJ/d][1]	n/a	628
iv	Station Flow Capacity [TJ/d]	n/a	747

c) Design Parameters after proposed work is completed:

[1] Design Day Flows out of Dawn Yard only (does not include other system supplies)

Item No.	Parameter Description	Minimum	Maximum
i	Inlet Pressure [kPag]	6109	9308
ii	Outlet Pressure [kPag]	4827	6040
iii	W22/23 Design Day Flows [TJ/d] [2]	n/a	628
iv	Station Flow Capacity [TJ/d]	n/a	1168

Dover Transmission Station
Location: Municipality of Chatham-Kent

a) Description of work:
- Install NPS 12 Ultrasonic Flow Meter to measure flows to the NPS 16 Panhandle Line
- Relocate the NPS 36 x 42 launcher/receiver to the new Richardson Sideroad station and tie-in the proposed NPS 36 Panhandle pipeline in same location.
- Install a NPS 16 valve for Over Pressure protection on NPS 16 pipeline.
- Install temporary station bypass on the NPS 16 pipeline to maintain flow to downstream customers during construction.

b) and c) Station Design Parameters (no change after proposed work is complete)

Item No.	Parameter Description	Minimum	Maximum
i	Inlet Pressure [kPag]	4435	6040
ii	Outlet Pressure [kPag]	2826	4140
iii	W22/23 Design Day Flows [TJ/d][3]	n/a	164
iv	Station Flow Capacity [TJ/d]	n/a	177

Richardson Station
Location: Municipality of Chatham-Kent

a) Description of work:
- Relocate the NPS 36 Launcher/Receiver from Dover Transmission station and reinstall in this location with filter separator and drain tank.
- Install two NPS 20 crossovers to tie-in the proposed NPS 36 pipeline with the existing NPS 20.
- Install Remote Telemetry Unit building and a standby generator.

b) Not applicable as this is a new station.

[2] Design Day Flows out of Dawn Yard only (does not include other system supplies)
[3] Flow through Dover Transmission to the NPS 16

c) Design Parameters after proposed work is completed:[4]

Item No.	Parameter Description	Minimum	Maximum
i	**Inlet Pressure [kPag]**	4435	6040
ii	**Outlet Pressure [kPag]**	4435	6040
iii	**W22/23 Design Day Flows [TJ/d**	n/a	n/a
iv	**Station Flow Capacity [TJ/d]**	n/a	n/a

[4] For clarity, Richardson Station is a valve-site station, not a pressure regulating station.

ENBRIDGE GAS INC.

Answer to Interrogatory from
Industrial Gas Users Association (IGUA)

INTERROGATORY

Reference:

Exhibit A, Tab 3, Schedule 1, page 5, paragraph 12.
The revised estimated cost for PREP is $358.0 million.

Question(s):

(a) Please provide the forecast rate base for the Panhandle system as of the proposed in-service date for PREP and before addition of the PREP costs.

(b) Please explain the current basis for allocation of Panhandle costs to customers (confirming that such costs are allocated in aggregate with the costs of the St. Clair system and indicating the allocator(s) used).

(c) Please provide the forecast rate base for the St. Clair system as of the proposed in-service
date for PREP.

Response:

Enbridge Gas is not seeking cost recovery of the Project as part of this application.[1]

a) The forecast net book value that would be included in the determination of rate base for the Panhandle system prior to the PREP in-service date of November 1, 2024 is $422.2M.

b) Union's 2013 OEB-approved cost allocation study classifies the demand-related costs for the combined Panhandle System and St. Clair System as Ojibway/St. Clair demand.

   The OEB-approved cost allocation methodology of Ojibway/St. Clair demand costs is based on the maximum design capacity of the combined system which is determined as the Panhandle System capacity from Dawn to Ojibway (Dawn send out) plus the maximum firm import capacity at the St. Clair Pipeline and Bluewater

[1] Exhibit A, Tab 3, Schedule 1, para. 13.

Pipeline river crossings. The allocation of the maximum design capacity to ex-franchise Rate C1 and Rate M16 is based on firm contracted demands. The remaining capacity is allocated to Union South in-franchise rate classes in proportion to the combined Panhandle System and St. Clair System firm design day demands.

c) The forecast net book value that would be included in the determination of rate base for the St. Clair system prior to the PREP in-service date of November 1, 2024 is $3.7M.

ENBRIDGE GAS INC.

Answer to Interrogatory from
Industrial Gas Users Association (IGUA)

INTERROGATORY

Reference:

Exhibit A, Tab 3, Schedule 1, page 5, paragraph 13.

Enbridge Gas expects that, as part of its 2024 rebasing application, the recovery of costs associated with this project will be addressed. Enbridge Gas will allocate Project costs to rate classes according to the cost allocation methodology approved as part of that proceeding, or as otherwise approved by the OEB.

EB-2022-0200, Exhibit J13.2, part b).

The ratemaking implications of the largest projects to be implemented in 2023 and 2024 (Dawn to Corunna and PREP) will be determined by a subsequent regulatory process, Phase 2 for Dawn to Corunna and the LTC for PREP.

Question(s):

Based on the current approved cost allocation methodology for the Panhandle system, please provide the forecast PREP costs that would be allocated to each EGI rate class and the rate impact (¢/m3 and % impact) of such allocation.

Response:

Please see Attachment 1 to this response. Page 1 provides the cost allocation and unit rates for the Project using a levelized revenue requirement as proposed in Enbridge Gas's 2024 Rebasing application.[1] The cost allocation factor is based on Union's current approved cost allocation methodology for Ojibway/St. Clair demand costs updated for the 2024 forecast included in Enbridge Gas's 2024 Rebasing application. Page 2 provides rate impacts in the form of annual bill impacts for typical small and large customers as a percentage of the customer's delivery bill.

Enbridge Gas is not seeking cost recovery of the Project as part of this application.[2]

[1] EB-2022-0200.
[2] Exhibit A, Tab 3, Schedule 1, para. 13.

Cost Allocation and Unit Rates of Panhandle Regional Expansion Project
based on Current OEB-approved Cost Allocation Methodology

Line No.	Particulars	Current Approved Cost Allocation Methodology Allocator (1) (a)	Allocation ($000s) (2) (b)	2024 Forecast Usage (4) (c)	Billing Units (d)	Unit Rate (cents/m³) (e) = (b / c x 100)
	EGD Rate Zone					
1	Rate 1	-	-	5,011,588	10^3m^3	-
2	Rate 6	-	-	4,799,240	10^3m^3	-
3	Rate 100	-	-	4,503	$10^3m^3/d$	-
4	Rate 110	-	-	75,654	$10^3m^3/d$	-
5	Rate 115	-	-	14,481	$10^3m^3/d$	-
6	Rate 125	-	-	111,124	$10^3m^3/d$	-
7	Rate 135	-	-	52,646	10^3m^3	-
8	Rate 145	-	-	6,138	$10^3m^3/d$	-
9	Rate 170	-	-	30,928	$10^3m^3/d$	-
10	Rate 200	-	-	15,025	$10^3m^3/d$	-
11	Rate 300	-	-	-	$10^3m^3/d$	-
12	Total EGD Rate Zone	-	-	10,121,328		
	Union North Rate Zone					
13	Rate 01	-	-	990,646	10^3m^3	-
14	Rate 10	-	-	328,117	10^3m^3	-
15	Rate 20	-	-	91,732	$10^3m^3/d$	-
16	Rate 25	-	-	126,831	10^3m^3	-
17	Rate 100	-	-	42,050	$10^3m^3/d$	-
18	Total Union North Rate Zone	-	-	1,579,376		
	Union South Rate Zone					
19	Rate M1	4,838	1,306	3,260,773	10^3m^3	0.0400
20	Rate M2	1,909	515	1,320,841	10^3m^3	0.0390
21	Rate M4 (F)	1,576	425	46,836	$10^3m^3/d$	0.9080
22	Rate M4 (I)	-	-	238	10^3m^3	-
23	Rate M5 (F)	20	5	432	$10^3m^3/d$	1.2722
24	Rate M5 (I)	-	-	55,087	10^3m^3	-
25	Rate M7 (F)	3,420	923	71,858	$10^3m^3/d$	1.2846
26	Rate M7 (I)	-	-	75,999	10^3m^3	-
27	Rate M9	-	-	6,040	$10^3m^3/d$	-
28	Rate T1 (F)	579	156	26,540	$10^3m^3/d$	0.5893
29	Rate T1 (I)	-	-	37,536	10^3m^3	-
30	Rate T2 (F)	13,553	3,658	308,713	$10^3m^3/d$	1.1850
31	Rate T2 (I)	-	-	41,762	10^3m^3	-
32	Rate T3	-	-	28,200	$10^3m^3/d$	-
33	Total Union South Rate Zone	25,895	6,989	5,280,856		
	Ex-Franchise					
34	Rate 331	-	-			
35	Rate 332	-	-			
36	Rate 401	-	-			
37	Rate M12	-	-			
38	Rate M13	-	-			
39	Rate M16	188	51			
40	Rate M17	-	-			
41	Rate C1 (F)	945	255			
42	Rate C1 (I)	-	-			
43	Total Ex-Franchise	1,133	306			
44	Total	27,027	7,295 (3)			

Notes:
(1) Ojibway/St. Clair demand allocation factor based on 2024 forecast maximum design capacity. Direct assignment to ex-franchise rates based on contracted capacity with remaining maximum design capacity allocated to Union South rate classes in proportion to Panhan System and St. Clair System design day demands.
(2) Allocated using column (a).
(3) EB-2022-0200, Exhibit 2, Tab 5, Schedule 4, Attachment 2, page 1, line 15, column (f).
(4) EB-2022-0200, Exhibit 8, Tab 2, Schedule 8, Attachment 2, column (a). General service volumes updated for Settlement Agreement.

Bill Impacts for Typical Small and Large Customers of Panhandle Regional Expansion Project
based on Current OEB-approved Cost Allocation Methodology

Line No.	Particulars	Unit Rate (1)	Billing Units (2)		Bill Impact ($)	EB-2022-0133 Current Approved Delivery Bill (3) ($)	Delivery Bill Impact (%)
		(a)	(b)		(c)	(d)	(e)
	Union South Rate Zone						
1	Rate M1 - Residential	0.0400	2,200	m³	0.88	433	0.2%
2	Rate M2	0.0390	73,000	m³	28.48	5,972	0.5%
3	Rate M4 (F) - Small	0.9080	4,800	m³/d	523	57,891	0.9%
4	Rate M4 (F) - Large	0.9080	50,000	m³/d	5,448	468,572	1.2%
5	Rate M5 (I) - Small	-	825,000	m³	-	38,793	0.0%
6	Rate M5 (I) - Large	-	6,500,000	m³	-	227,250	0.0%
7	Rate M7 (F) - Small	1.2846	165,000	m³/d	25,434	842,327	3.0%
8	Rate M7 (F) - Large	1.2846	720,000	m³/d	110,986	3,183,889	3.5%
9	Rate M9 - Small	-	56,439	m³/d	-	206,517	0.0%
10	Rate M9 - Large	-	168,100	m³/d	-	613,438	0.0%
11	Rate T1 (F) - Small	0.5893	25,750	m³/d	1,821	175,282	1.0%
12	Rate T1 (F) - Average	0.5893	48,750	m³/d	3,447	272,638	1.3%
13	Rate T1 (F) - Large	0.5893	133,000	m³/d	9,405	614,548	1.5%
14	Rate T2 (F) - Small	1.1850	190,000	m³/d	27,018	777,629	3.5%
15	Rate T2 (F) - Average	1.1850	669,000	m³/d	95,130	1,901,634	5.0%
16	Rate T2 (F) - Large	1.1850	1,200,000	m³/d	170,637	3,156,032	5.4%
17	Rate T3	-	2,350,000	m³/d	-	6,375,944	0.0%

Notes:
(1) Page 1, column (e).
(2) Billing units for typical small and large customers.
(3) Delivery charges per EB-2022-0200, Exhibit 8, Tab 2, Schedule 8, Attachment 10, pages 7-9, column (a).

ENBRIDGE GAS INC.

Answer to Interrogatory from
Industrial Gas Users Association (IGUA)

INTERROGATORY

Reference:

Exhibit A, Tab 3, Schedule 1, page 6, paragraph 17

In summary, it is critical that Enbridge Gas provide additional capacity on the Panhandle System to meet the forecasted firm demand of customers in the Panhandle Market. The proposed Project will cost-effectively provide the required incremental capacity within the necessary timeframe. In doing so the Project will provide a continuing source of affordable energy for residential customers while offering a competitive advantage to commercial and industrial customers, thereby helping to ensure economic growth not only in the Panhandle Market, but across the Southwestern Ontario region.

Question(s):

(a) Please provide a map of the referenced Southwestern Ontario region, indicating thereon the referenced Panhandle Market.

(b) Please confirm that the phrase “helping to ensure economic growth…across the Southwestern Ontario region” is a reference to the same benefits from the Project articulated at paragraph 23 of the same exhibit, and paragraphs 44 and 45 (page 14) of Exhibit B/T1/S1. If not confirmed, please explain what additional benefits the Project will provide outside of the Panhandle Market.

Response:

a) Please see the response at Exhibit I.PP.1, part a) for a map of the Panhandle Transmission System. As per the response at Exhibit I.STAFF.25, part c) the proposed Project partially alleviates the largest Panhandle System bottleneck (see Exhibit B, Tab 2, Schedule 1, pp. 13 - 14). Partial alleviation of the bottleneck improves the reliability of natural gas service for existing customers, and will allow for growth among both existing and new customers on the Panhandle System. All customers benefit from alleviation of Panhandle System bottlenecks.

   The benefits from the Project, however, extend beyond the hydraulic benefits described above. From a broader economic perspective, as outlined at Exhibit E, Tab 1, Schedule 1, Paragraph 19, the transmission Project will also provide direct and indirect economic benefits to Ontario estimated at approximately $257 million.

This figure does not include the similar direct and indirect economic benefits to Ontario when both existing and new natural gas customers invest and grow their operations. Within EOI bid responses, customers indicated that total direct capital investments into their business operations in Southern Ontario related to their incremental natural gas needs would exceed $4.5 billion.

b) Enbridge Gas interprets paragraph 23 referenced within the interrogatory as paragraph 23 at Exhibit A, Tab 4, Schedule 1.

The benefits mentioned at the three references provided in the interrogatory are all related in that they are in regards to broader benefits related to the Project and access to natural gas; however, the benefits within each of those references also differ in some instances as described at the references themselves. Please see the response at Exhibit I.STAFF.25, part c) for more information regarding Project benefits.

ENBRIDGE GAS INC.

Answer to Interrogatory from
Industrial Gas Users Association (IGUA)

INTERROGATORY

Reference:

EB-2020-0094 (November 5, 2020 Decision and Order on Application by EGI for approval of a System Expansion Surcharge, a Temporary Connection Surcharge and an Hourly Allocation Factor), page 13, 3rd paragraph.

The Area of Benefit is determined by hydraulically modelling the pipeline network in the region around the proposed Development Project to determine the geographic extent of the area that will benefit from the incremental capacity of the project. Exhibit B, Tab 1, Schedule 1, page 3, paragraph 12 and page 4 Figure 1, describing the Area of Benefit for the Project.

Question(s):

Please confirm that the Area of Benefit for PREP complies with the definition of "Area of Benefit" as set out in the referenced excerpt from the OEB's 2020 Decision approving the Hourly Allocation Factor (HAF) mechanism.

If not confirmed, please explain the difference in the two uses of the term.

Response:

Not confirmed. The Area of Benefit shown in Exhibit B, Tab 1, Schedule 1, Figure 1 was developed for the EOI. The purpose of the EOI was to collect information regarding customer interest in natural gas in the area downstream of the existing NPS 20 Panhandle Line bottleneck (see Exhibit B, Tab 2, Schedule 1, pp. 13-14 for more information regarding Panhandle System bottlenecks). Please note that all capacity along the Panhandle Transmission System can be used to serve any customer from Dawn to the Ojibway valve site in Windsor, and that Project benefits extend beyond EOI-identified customers (please see the response to Exhibit I.STAFF.25, part c)).

ENBRIDGE GAS INC.

Answer to Interrogatory from
Industrial Gas Users Association (IGUA)

INTERROGATORY

Reference:

Exhibit B, Tab 1, Schedule 1, page 7, paragraph 26.

The evidence indicates that;
a. In response to the 2023 Expression of Interest Process (EOI) EGI received 42 bids for capacity for the Project from 39 entities totalling 197 TJ/day of interest.

b. This 197 TJ/day is incremental to capacity already contracted by customers via the 2021 EOI and in the normal course of business since the close of that process.

Question(s):

(a) Please indicate how many of the 39 entities who responded to the 2023 EOI are customers whose forecast hourly gas consumption demand is equal to or greater than 50 m3/hour, and the percentage of PREP's capacity represented by these customers.

(b) Please indicate the capacity already contracted via the 2021 EOI and in the normal course of business since the close of that process by customers whose forecast hourly gas consumption demand is equal to or greater than 50 m3/hour, the number of such customers and the percentage of PREP's capacity represented by these customers.

(c) Please indicate additional capacity demand not included in parts (a) and (b) of this interrogatory forecasted for the 10 year period commencing with the proposed PREP in service date for customers whose forecast hourly gas consumption demand is equal to or greater than 50 m3/hour, the number of such forecast customers and the percentage of PREP's capacity represented by those forecast customers.

(d) Please provide the percentage of forecast peak hourly demand represented by the customers included in the responses to each of parts (a), (b) and (c) of this interrogatory.

(e) Based on the information provided in response to earlier parts of this interrogatory, please calculate the HAF that would be applicable to PREP were the HAF framework to be applied to PREP, and show the calculations.

(f) Based on the calculations provided in response to part (e) of this interrogatory, please indicate the total CIACs that would be applicable to PREP.

Response:

a) All 39 entities that provided EOI bids require greater than 50 m^3/hr.

   Enbridge Gas is in the process of executing contracts with the entities that require incremental capacity starting in 2024 and 2025 (please see the response at Exhibit I.STAFF.24, part a) for details regarding contract status including the percentage of the total incremental capacity created by the Project). Going forward, Enbridge Gas will continue to engage and negotiate with EOI bidders as well as new requests from entities that were not EOI bidders, which could result in customers attaching to the Panhandle System due to the incremental capacity provided by the Project that are less than 50 m^3/hr.

b) There is one customer who participated in the 2021 EOI with a firm distribution contract related to the Project's incremental capacity with a forecast hourly consumption demand equal to or greater than 50 m3/hour. This contract represents 34% of the total incremental capacity created by the Project.

c) The capacity demand not included in parts a) and b) above is provided in part d) below ("remaining capacity for future customers"). Future customers may or may not have hourly demands greater than or equal to 50 m3/hour.

   The proposed Project provides 168 TJ/d and would serve 5 years of the current demand forecast. Another solution will be required to serve the remainder of the 10-year demand forecast and the remaining demand will be confirmed through another EOI closer to that time.

d) Please see the information below.

	Demand (TJ/day)	Project Capacity (TJ/day)	Percent
Contracts Under Negotiations	74	168	44%
2021 EOI customers executed	57	168	34%
Remaining capacity for future customers	37	168	22%

e) Please see the response at Exhibit I.STAFF.26, part a).

f) Please see the response at Exhibit I.ED.29, part c).

ENBRIDGE GAS INC.

Answer to Interrogatory from
Industrial Gas Users Association (IGUA)

INTERROGATORY

Reference:

EB-2020-0094 (November 5, 2020 Decision and Order on Application by EGI for approval of a System Expansion Surcharge, and Temporary Connection Surcharge and an Hourly Allocation Factor), page 20, last paragraph.

The OEB recognizes the concern of some parties about the use of HAF in transmission projects and finds Enbridge Gas's commitment to continue to explore alternatives to be acceptable. The OEB approves the use of HAF for projects that are primarily distribution and if there is a minor component of transmission then the OEB would still accept the use of HAF. For exclusively transmission projects, the OEB has not agreed to the application
of HAF.

Question(s):

(a) Please discuss alternatives for application of the HAF to transmission projects explored by EGI in accord with its commitment as acknowledged by the OEB in the EB-2020-0094 excerpt referenced.

(b) If the Commission were to direct application of the HAF to PREP, please confirm that the HAF could be applied on the basis of the information included in EGI's Application. If not confirmed please particularize any impediments to doing so.

Response:

a) For clarity, Enbridge Gas's Reply Argument within EB-2020-0094 stated the following:

"In the case of the Chatham-Kent Rural project,[1] although it involved transmission facilities, the HAF was appropriate due to the modest cost and the fact that customers were able to mitigate their costs and avoid a CIAC through reasonable contract terms and conditions, as recognized by OGVG. Enbridge Gas is continuing

[1] EB-2018-0188.

to explore alternatives to applying EBO 134 or EBO 188 in an exclusive manner and how to reconcile the two sets of guidelines in an appropriate case."

The statement was made in the context of the use of HAF for distribution projects which may have a minor transmission component, and where the use of HAF could be appropriate due to its modest cost. The proposed Project is entirely a transmission project (i.e., not a distribution project, and not a "dual-function" pipeline) and HAF is not appropriate.

Enbridge Gas will continue to evaluate opportunities where HAF may apply in an appropriate case involving "dual-function" facilities, however there are no such opportunities identified at this time.

b) Not confirmed. Please see the response at Exhibit I.STAFF.26, part a).

ENBRIDGE GAS INC.

Answer to Interrogatory from
Ontario Greenhouse Vegetable Growers (OGVG)

INTERROGATORY

Reference:

EB-2022-0157 Exhibit E Tab 1 Schedule 2 Page 1 of 1
EB-2022-0157 Exhibit E Tab 1 Schedule 3 Page 1 of 1
EB-2022-0157 Exhibit E Tab 1 Schedule 4 Page 1 of 1
Exhibit E Tab 1 Schedule 5

Preamble:

EGI provides an estimate of the costs for the proposed Panhandle Regional Expansion Project (the "Project") and the transmission related revenue stream in relation to the new capacity provided by the proposed Project to provide a stage 1 discounted cash flow analysis for the Project. OGVG is interested in whether, as a part of the stage 2 and/or 3 analyses of the impacts of the project, there is a net benefit of the Project from any net incremental storage and transmission revenue resulting from the Project.

Question(s):

a) Please provide, on a best-efforts basis, the incremental storage related costs, if any, made necessary because of the new load associated with the new capacity created by the proposed Project.

b) Please provide, on a best-efforts basis, the incremental distribution related costs made necessary because of the need to connect the new load associated with the new capacity created by the Project.

c) Please provide a calculation of the incremental storage revenue associated with the new capacity created by the Project in the same format as the transmission revenue calculated in Exhibit E Tab 1 Schedule 4 Page 1 of 1.

d) Please provide a calculation of the incremental distribution revenue associated with the new capacity created by the Project in the same format at the transmission revenue calculated in Exhibit E Tab 1 Schedule 4 Page 1 of 1.

e) Please provide a discounted cash flow analysis for the Project in the format provided in Exhibit E Tab 1 Schedule 5 that includes the storage and distribution related costs and revenues provided in answers a) to d). In providing the analysis please:

i) provide the contract customer revenue and general service revenue on separate lines, and
ii) provide the analysis in excel format.

Response:

a) Since the customers associated with the Project are all located in Union South, the Union rate zone Gas Supply Plan will incur no additional storage service costs resulting from the load associated with the Project.

b) Enbridge Gas is not able to provide incremental distribution facilities costs as distribution facilities have not yet been designed or constructed for the Project.

c) Please see Attachment 1 to this response.

d) Please see Attachment 2 to this response.

e) Enbridge Gas is unable to provide the requested analysis as the information required to complete the analysis (i.e., distribution facilities costs) is not available. Please see part b) above.

Calculation of Revenue (Storage Margins)

PREP - Panhandle Regional Expansion Project
InService Date: Nov-01-2024

Line	Project Year ($000's)		1	2	3	4	5	6	7	8	9	10
	Storage costs are recovered from Contract rate classes based on Firm Contract Demand (CD)											
	The deemed incremental revenue is based on the capacity created by the Project											
	Contract Methodology: Total CD * 12 * Storage Margin											
1	Storage Margin $/M3 / month	0.039654										
2	Contract Demand 10^3m^3/month		1,623	2,762	3,087	3,412	3,737	4,003	4,003	4,003	4,003	4,003
3	Storage Margin		$772	$1,314	$1,469	$1,624	$1,778	$1,905	$1,905	$1,905	$1,905	$1,905
	General Service Storage Margin = Volumes * Storage Margin											
4	Storage Margin $ / M3 consumed	0.008285										
5	Volume 10 ^3 M^3		2,218	6,610	10,912	15,092	19,120	23,000	24,906	24,906	24,906	24,906
6	Storage Margin		$18	$55	$90	$125	$158	$191	$206	$206	$206	$206
7	Total Storage Margin		$790	$1,369	$1,559	$1,749	$1,936	$2,096	$2,111	$2,111	$2,111	$2,111

The Storage margins are Jan 2023 rates

Calculation of Revenue (Distribution Margins)

PREP - Panhandle Regional Expansion Project
InService Date: Nov-01-2024

Line	Project Year ($000's)		1	2	3	4	5	6	7	8	9	10
	Distribution costs are recovered from Contract rate classes based on Firm Contract Demand (CD)											
	The deemed incremental revenue is based on the capacity created by the Project											
	Contract Methodology: Total CD * 12 * Distribution Margin											
1	Distribution Margin $/M3 / month	0.097333										
2	Contract Demand 10^3m^3/month		1,623	2,762	3,087	3,412	3,737	4,003	4,003	4,003	4,003	4,003
3	Distribution Margin		$1,895	$3,227	$3,606	$3,985	$4,364	$4,676	$4,676	$4,676	$4,676	$4,676
	General Service Distribution Margin = Volumes * Distribution Margin											
4	Distribution Margin $ / M3 consumed	0.118892										
5	Volume 10 ^3 M^3		2,218	6,610	10,912	15,092	19,120	23,000	24,906	24,906	24,906	24,906
6	Distribution Margin		$264	$786	$1,297	$1,794	$2,273	$2,735	$2,961	$2,961	$2,961	$2,961
7	Total Distribution Margin		$2,159	$4,012	$4,903	$5,779	$6,638	$7,410	$7,637	$7,637	$7,637	$7,637

The Distributions margins are Jan 2023 rates

ENBRIDGE GAS INC.

Answer to Interrogatory from
Ontario Greenhouse Vegetable Growers (OGVG)

INTERROGATORY

Reference:

EB-2022-0157 Exhibit E Tab 1 Schedule 7 Pages 5 to 7.

Preamble:

EGI provides an analysis showing that the net present value of the economic benefits associated with the $289.2M capital spending associated with the Project is $257M and 1,093 jobs created.

EGI provides evidence that similar economic benefits will be created as a result of the approximately $4.5 Billion in capital spending that will be enabled as a result of the Project, including the creation of approximately 6,900 jobs, but does not attempt to quantify the present value of the benefit.

Question(s):

a) Please comment on the magnitude of the economic benefits to Ontario that are likely to be realized because of the $4.5 Billion in capital spending expected to be enabled by the Project, relative to the $257M in forecast economic benefits associated with the relatively smaller Project cost of $289.2M. For example, does EGI believe it is reasonable to expect that the economic benefits of the $4.5 Billion in capital spending enabled by the Project will be at least equal to if not exceed the $257M in economic benefits resulting from the Project spending?

b) Please confirm that it is EGI's evidence that, in the absence of the Project, the projected capital spending of $4.5 Billion and forecast creation of 6,900 jobs will not occur.

c) To what extent does EGI believe that the 25% of customers that did not provide relevant information in response to the updated 2023 EOI nevertheless represent demand for new capacity.

Response:

a) Yes, Enbridge Gas believes it is reasonable to expect that the economic benefits of the $4.5 billion in capital spending enabled by the Project will be at least equal to if not greater than the $257 million in economic benefits resulting from the construction of the Project.

b) Confirmed.

c) All customers who responded to the 2023 EOI, including those that did not provide economic development information related to their incremental natural gas needs, were included in the assessment of incremental natural gas demand requirements underpinning the need for the Project.

ENBRIDGE GAS INC.

Answer to Interrogatory from
Ontario Greenhouse Vegetable Growers (OGVG)

INTERROGATORY

Reference:

EB-2022-0157 Exhibit B Tab 1 Schedule 1 Page 10 of 22
EB-2022-0157 Exhibit B Tab 1 Schedule 1 Page 13 of 22

Preamble:

The contract rate (Rate M/BT4, Rate M/BT5, Rate M/BT7, Rate T-1 and Rate T-2) demand represents approximately 56% of firm demand served by the Panhandle System as of Winter 2022/2023.

It appears to OGVG that EGI's forecast for the winter 2030/31 season shows that by 2031 contract rate customers will represent 65% of the firm demand served by the Panhandle System.

Question(s):

a) To what extent does EGI believe that, assuming the Project is approved, the demand for capacity on the Panhandle System by contract customers will continue to grow such that in 2031 and beyond EGI will have to build further incremental capacity?

Response:

a) Enbridge Gas anticipates that natural gas demand will continue to increase such that another capacity solution will be required before 2031. More specifically, if the Project is approved and constructed it will provide a total system capacity of 904 TJ/d.[1] Enbridge Gas's demand forecast shows that demand requirements will surpass this amount by Winter 2029/2030 (906 TJ/d). [2] Furthermore, Enbridge Gas's demand forecast shows that natural gas demand will continue to increase to 921 TJ/d by Winter 2030/2031.

[1] Exhibit A, Tab 4, Schedule 1, Page 7, Table 1.
[2] Exhibit B, Tab 1, Schedule 1, Page 13, Table 2.

ENBRIDGE GAS INC.

Answer to Interrogatory from
Pollution Probe (PP)

INTERROGATORY

Reference:

"The Project as proposed is designed to reliably serve increased demands for firm service in the Panhandle Market, including, in particular, incremental demands from the greenhouse, automotive, and power generation sectors" [A/2/1]

Question(s):

a) Enbridge previously confirmed that there is only one incremental automotive customer proposed on the Panhandle system and that it would only use natural gas for potential space and/or water heating. Has this changed for the updated Project? If so, please provide details for any incremental automotive customers, proposed use for natural gas and the proposed annual volume / peak demand for each of these potential customers.

b) Enbridge removed the Leamington Interconnect from the Project reducing greenhouse customers for the Project. Please explain what the difference in greenhouse customers is for the Project with that Project component removed and the resulting annual volume / peak demand increases forecasted. Please note which of the greenhouse customers (if any) are new incremental load and if so, what year they are forecasted to come on the system.

c) Is there a change in the number/size of power generation customers from the 2022 application. If so, please provide details and which year they are forecasted to be added/removed.

Response:

a) The contract for the automotive customer referenced within the interrogatory has been executed starting in 2023 and is being supported by the existing system capacity. Please note, this customer's volume is for space heating, water heating, industrial processes, and back-up power generation.

   Enbridge Gas is engaged in ongoing discussions with several automotive industry customers within the Project area. The total incremental natural gas demands of these customers are believed to be approximately 8.5 TJ/d, however due to the early

stage of these discussions Enbridge Gas has not included these incremental demands within the demand forecast at this time.

b) For clarity, the removal of the Leamington Interconnect from the Project scope did not result in the removal of greenhouse customers from the demand forecast, rather updates to the capacity position of the Panhandle System, as well as an updated demand forecast, resulted in the ability to remove the Leamington Interconnect from the Project scope. Please see the response at Exhibit I.SEC.5, part a) for more information regarding the removal of the Leamington Interconnect from the Project scope. The proposed Project provides sufficient capacity to serve the updated forecast demands of customers, including greenhouse customers, for the next five years.

   For information regarding changes to greenhouse customer demands between the initial application filed June 2022 and the amended application filed June 2023, please see Table 2 within the response at Exhibit I.ED.26, part b).

c) Yes. There is an increase of 31 TJ/day in the demand forecast starting in Winter 2025/2026 among two power generation customers. For information regarding changes to power generation customer demands between the initial application filed June 2022 and the amended application filed June 2023, please see Table 2 within the response at Exhibit I.ED.26, part b).

ENBRIDGE GAS INC.

Answer to Interrogatory from
Pollution Probe (PP)

INTERROGATORY

Reference:

The additional capacity of 168 TJ/d resulting from the Project will support the continued reliable and secure delivery of natural gas to the growing residential, commercial, and industrial customer segments within the Panhandle Market. [A/3/1 Page 2]

Question(s):

a) Please provide a summary of the incremental customers (by residential, commercial, and industrial customer segments) by year that are driving the Project need.

b) Please explain why the Panhandle system would not be able to provide “continued reliable and secure delivery” to already existing customers without the Project.

Response:

a) Please see the response at Exhibit I.ED.2 for the forecasted general service attachments by residential, commercial, and industrial.

   Please see the response at Exhibit I.STAFF.24, part a) for the list of incremental contract rate customer contracts (executed and in negotiation).

b) As per Enbridge Gas’s demand forecast, natural gas demand (from both existing and new customers) is expected to exceed current system capacity. Therefore, Enbridge Gas would not be able to provide reliable, firm natural gas service to existing and new customers to meet their future demand requirements without the Project.

ENBRIDGE GAS INC.

Answer to Interrogatory from
Pollution Probe (PP)

INTERROGATORY

Question(s):

Please confirm that Enbridge did not conduct a 40 year demand forecast to validate the peak demand capacity that would be provided by the project options consider and the proposed project. If Enbridge did conduct that analysis, please provide a copy.

Response:

Confirmed.

ENBRIDGE GAS INC.

Answer to Interrogatory from
Pollution Probe (PP)

INTERROGATORY

Reference:

A/4/1 Page 4:
• Winter 2023/2024 customer demands decreased by 14 TJ/d, from 744 TJ/d to 730 TJ/d.
• The 5-year demand forecast (i.e., the total forecast demand in Winter 2028/2029) decreased by 40 TJ/d, from 932 TJ/d to 892 TJ/d.

Question(s):

a) Please provide a table and corresponding graph showing forecasted annualcustomer demand from current to Winter 2028/2029 and indicate the customercategories driven the demand. In the major categories, please include residential, contract automotive, contract greenhouse and contract power generation.

b) For the forecasted increase in customer demand (per part a) from current to Winter 2028/2029, please provide a summary of how much is secured through executed contracts.

c) A primary driver of the Project put forward was to maintain delivery pressure for power generation customers. Is this still a Project driver or has that issue no longer a consideration.

Response:

a) Enbridge Gas does not use annual volumes when designing the Panhandle System.

   Please see the response at Exhibit JT1.23 for the design day demand forecast broken out by general service, contract power generation, contract greenhouse and contract large commercial/industrial. Automotive customers are included within large commercial/industrial. Please see the response at Exhibit I.PP.33 for a corresponding graph.

b) Please see the response at Exhibit I.STAFF.24, part a).

c) The primary driver for the Project is natural gas demand growth across the Panhandle System. This is not to be confused with the hydraulic design constraint on the Panhandle System, which includes maintaining pressure to power generation customers. There are two minimum pressure constraints identified and discussed at Exhibit B, Tab 2, Schedule 1, Paragraphs 12-13. Maintaining pressures to constrained locations is a design requirement rather than a driver for incremental facilities or non-facilities alternatives.

ENBRIDGE GAS INC.

Answer to Interrogatory from
Pollution Probe (PP)

INTERROGATORY

Question(s):

a) When was the proposed project first identified in the Enbridge Asset Management Plan (AMP)?

b) Please provide the page references from Enbridge's most current Asset Management Plan that explains the basis for the project and where it ranks against all other projects in the AMP.

c) Enbridge indicated that it intends file an Updated AMP in the fall 2023. If this is not the most recent version provided in response to part b, please explain the differences between the AMP version referenced in part b with the Updated 2023 AMP (if any).

d) What process will Enbridge use to file the Updated AMP in fall 2023 (i.e. is it via this proceeding)?

Response:

a) Please refer to the response at Exhibit I.PP.2, part b).

b) The Project was identified as a growth-driven investment under EBO 134. Growth driven investments under EBO 134 have fixed timing based on when the incremental facilities are required and have not been directly ranked against other projects in the asset management plan.

   Page references to the Panhandle Regional Expansion Project found in Enbridge Gas's most current AMP (2024-2028 Natural Gas Distribution Rates, EB-2022-0200, filed October 31, 2022) are provided below:

- Exhibit 2, Tab 6, Schedule 2, Pages 16 and 17:
  - 1. Executive Summary, 1.4 Capital Expenditures, 1.4.1 Capital Considerations

- Exhibit 2, Tab 6, Schedule 2, Page 74:
    - 5. Customers and Assets, 5.1.9 Growth and Hydrogen Strategy Outcomes, 5.1.9.4 Transmission System Reinforcement System Growth under EBO 184

Additionally, the following updates were filed August 18, 2023 under EB-2022-0200:

- Exhibit J13.11, Attachment 1, Pages 40, 45 and 46:
    - Updated investment summary reports, originally provided in Exhibit 2, Tab 6, Schedule 2, Appendix A at Attachment 1.

c) The 2023 to 2032 AMP filed in Phase 1 of the Company's Rebasing Application (EB-2022-0200 at Exhibit 2, Tab 6, Schedule 2) is the most current version as the 2023 Addendum has not yet been filed.

d) As promised in the IRP Framework proceeding, EGI will file an AMP/or an Addendum to the AMP annually. The AMP describes the 10-year system needs and constraints and will be filed every two years, while the Addendum provides updates to forecasts for the year in which it is filed and the following year, and addresses any material changes to the 10-year system needs identified in the previous AMP. Each document provides the status of consideration of IRP alternatives in regards to meeting these system needs. During the deferred rebasing term, the AMP/Addendum to the AMP has been filed in the annual rate application to support the request for Incremental Capital Module (ICM). For 2023, there is no ICM request. Therefore, for this year, EGI will file the Addendum to the AMP as a stand-alone document with a cover letter. It will be filed under the IRP Framework docket number and copied to all parties in that proceeding. Similar to prior years, the Addendum to the AMP is being filed for information purposes and EGI is not seeking any approvals in relation to this filing.

ENBRIDGE GAS INC.

Answer to Interrogatory from
Pollution Probe (PP)

INTERROGATORY

Reference:

EGI_Correspondence_PO6_20230825_eSigned. Enbridge indicated that the response several pieces of evidence was no longer accurate.

Question(s):

Please provide the accurate response to following (Please refile each marked as updated for administrative efficiency).

- JT1.16
- JT1.19
- JT1.21
- JT1.23
- JT1.32
- JT2.9
- JT2.10
- JT2.11
- JT2.12
- JT2.7 (Given that JT2.7 refers to I.PP.5, please confirm that I.PP.5 remains accurate and please provide an updated response to JT2.7 with the updates required.)
- JT1.5
- I.PP.3 (also please provide a copy of all documents and specific information sources outlining the growth assumptions that would affect the Panhandle system.)
- I.EP.3
- I.PP.5
- I.PP.8
- I.PP.14
- I.PP.16
- I.PP.23
- I.STAFF.7
- I.STAFF.9
- I.APPrO.6
- I.ED.2
- I.STAFF.11
- I.ED.12

Response:

The responses referenced within the interrogatory were updated and filed by Enbridge Gas on October 3, 2023.

ENBRIDGE GAS INC.

Answer to Interrogatory from
Pollution Probe (PP)

INTERROGATORY

Reference:

EGI_Correspondence_PO6_20230825_eSigned. Enbridge indicated that the response to the original JT2.8 is no longer accurate,

Question(s):

a) Please provide an updated response that is accurate based on current information.

b) Please provide details on which customers are expected to experience a drop below the contracted pressure constraint (in chronological order starting with the first to occur) and provide the following information:
• Customer name
• Current annual volume
• Expected annual volume for years 2024-2030 (or the range available)
• Current contracted demand
• Expected contracted demand for years 2024-2030 (or the range available)
• Current delivery pressure, expected delivery pressure in Winter 2029/2030
• Year that pressure is expected to go below the pressure constraint value without the Project.

Response:

a) Please see the responses to Exhibit JT2.8.STAFF 2 and Exhibit JT2.8.STAFF 3, updated October 3, 2023. Please note the Exhibit JT2.8.STAFF 1 has not been updated as the information remains accurate.

b) Enbridge Gas would not continue to attach Panhandle System customers without the Project facilities. Providing the requested hypothetical information would require extensive scenario modelling and it would not be reasonable to produce due to the numerous variables and permutations that would impact the analysis. On that basis, Enbridge Gas is not able to provide the requested information.

ENBRIDGE GAS INC.

Answer to Interrogatory from
Pollution Probe (PP)

INTERROGATORY

Reference:

Reference: Enbridge previously indicated that Contract rate customer demand makes up approximately 98% of the capacity of the proposed Project. However, in the updated Project (updated Application) Enbridge indicates that contract rate (Rate M/BT4, Rate M/BT5, Rate M/BT7, Rate T-1 and Rate T-2) demand accounts for approximately 55% of firm demand served by the Panhandle System as of Winter 2021/2022.

Question(s):
a) Please reconcile the discrepancy.

b) Why did Enbridge only survey Contract customers making up 55% of Panhandle system demand, rather than surveying the Contract customers making up 95% of Panhandle system demand?

c) Please summarize the types of Contract customers not included in the survey.

d) If the OEB were to require a CIAC for Contract customers requiring incremental demand that is driving the Project, please explain why it would only apply to those surveyed by Enbridge and not the larger list of Contract customers that were not surveyed?

e) If the OEB were to require a CIAC for Contract customers requiring incremental demand, please provide a table (and accompanying Excel) indicating the following:

• Contract Customer
• Incremental Demand
• % of Incremental Demand from the Project
• CIAC (calculated based on the total cost of the Project times the % of total Incremental Demand due to the customer)
• % of total customer CIAC compared to the total Project cost.

Response:

a) There is no discrepancy to reconcile. For clarity, The Panhandle System is comprised of transmission pipelines to transport natural gas between Enbridge Gas's Dawn Compressor Station, located in the Township of Dawn-Euphemia and the Ojibway Valve Site, located in the City of Windsor. The Panhandle System feeds distribution systems serving residential, commercial, and industrial markets in the municipalities of Dawn- Euphemia, St. Clair, Chatham-Kent, Windsor, Lakeshore, Leamington, Kingsville, Essex, Amherstburg, LaSalle, and Tecumseh.[1] Please see Exhibit B, Tab 2, Schedule 1 for information regarding the Panhandle system, including Figure 1 at p. 2 for a visual representation of the Panhandle System.

   The Project consists of:[2]
   - Approximately 19 km of Nominal Pipe Size ("NPS") 36 natural gas pipeline with a Maximum Operating Pressure ("MOP") of 6040 kPag from the existing Enbridge Gas Dover Transmission Station in the Municipality of Chatham-Kent to a new valve site in the Municipality of Lakeshore; and,
   - Ancillary measurement, pressure regulation, and station facilities within the Township of Dawn Euphemia and in the Municipality of Chatham-Kent.

   Please see Exhibit D, Tab 1, Schedule 1 for information regarding the Project, including Figure 1 at p. 2 for a visual representation of the Project (in red).

   The 55% figure reflects the percentage of contract customers on the entire Panhandle System, while the 98% figure reflected the percentage of the Project's capacity expected to be driven by contract rate customers.

b) – d)
   Enbridge Gas surveyed all contract rate customers within the Project's Area of Benefit.

e) Please see the response at Exhibit I.ED.29, part c).

[1] Exhibit A, Tab 3, Schedule 1, p. 1, para. 2.
[2] Exhibit A, Tab 3, Schedule 1, p. 1, para. 1.

ENBRIDGE GAS INC.

Answer to Interrogatory from
Pollution Probe (PP)

INTERROGATORY

Reference:

Enbridge highlights potential significant gas demand increases due to the Brighton Beach Generating Station ("BBGS") and the potential Capital Power expansion at its existing East Windsor Cogeneration Centre. [B/1/1 Page 18]

Question(s):

a) Please indicate when Enbridge expects a firm commitment from these customers related to the increased gas demand which could occur or if a commitment has already been signed, please provide a copy.

b) Please provide the current and forecasted future peak demand for these power generation facilities should they expand as forecasted by Enbridge.

Response:

a) Enbridge Gas has a firm distribution contract commitment with a power generator for service commencing in 2024 and is currently negotiating additional capacity for service commencing in 2025. Enbridge is also negotiating with another power generator for capacity in 2025.

   Please see Attachment 1 to this response a for a copy of the executed contract referenced above. Please note that Enbridge Gas is requesting confidential treatment for certain information contained in Attachment 1.

   For the incremental capacity requirements beginning in 2025, Enbridge Gas expects distribution contracts to be executed in the next 30 – 90 days.

b) Please see Table 2 at Exhibit B, Tab 1, Schedule 1, p. 13. Current demand for power generation customers is 106 TJ/d and is forecast to be 195 TJ/d by Winter 2025/2026.

Contract ID	
Contract Name	ATURA POWER

T2 CONTRACT

This GAS STORAGE AND DISTRIBUTION CONTRACT ("**Contract**"), made as of the 7th day of January, 2022

BETWEEN:

Enbridge Gas Inc.

hereinafter called the "the **Company**"

- and -

Brighton Beach Power L.P., doing business as Atura Power, by its general partner, Brighton Beach Power Ltd.

hereinafter called "**Customer**" or "**Atura**"

WHEREAS, the Company has built, or proposes to build, certain facilities for the Panhandle Regional Expansion Project (the "**Expansion Facilities**") to increase the capacity of the pipeline system to serve the Brighton Beach Generating Station located at 100 Broadway Street, Windsor, ON (the "**Plant**"). Customer owns and operates the Plant;

WHEREAS, Customer has requested the Company, and the Company has agreed to, provide certain Services to Customer;

AND WHEREAS, the Company will deliver Customer-owned Gas to Customer's Points of Consumption or Storage under this Contract and pursuant to the T2 Rate Schedule;

IN CONSIDERATION of the mutual covenants contained herein, the parties agree as follows:

1 INCORPORATIONS

The following are hereby incorporated into and form part of this Contract:

a) Schedule 1 – Delivery, Storage and Distribution Services Parameters (Rate T2), and Schedule 1a – Supplemental Services Parameters (Rate T2), as each may be amended from time to time upon agreement by the parties;
b) The latest posted version of the T2 Contract Terms and Conditions contained in Schedule 2, subject to Section 12.18 of the Company's general terms and conditions applicable to Union Rate Zones ("**General Terms and Conditions**");
c) The latest posted version of the General Terms and Conditions, subject to Section 12.18 of the General Terms and Conditions; and
d) The applicable T2 Rate Schedule, as amended from time to time and as approved by the Ontario Energy Board.

For the purposes of this Contract, "Points of Receipt" shall mean those points identified in Schedule 1 attached hereto where the Company may receive Gas from Customer.

2 CONDITIONS PRECEDENT

2.01 The obligations of the Company to provide Services hereunder are subject to the following conditions precedent that are for the sole benefit of the Company, and which may be waived or extended, in whole or in part, in the manner provided in this Contract:

a) The Company shall have obtained, in form and substance satisfactory to the Company, and all conditions shall have been satisfied under all governmental, regulatory and other third party approvals, consents, orders and authorizations, that are required to:
   i. provide the Services; and
   ii. construct the Expansion Facilities;

b) The Company shall have obtained all internal approvals that are necessary or appropriate to:
   i. provide the Services; and
   ii. construct the Expansion Facilities;

c) The Company shall have completed and placed into Service the Expansion Facilities; and

d) If Customer has elected direct purchase services, Customer and the Company shall have executed and maintained in good standing a Southern Bundled T.

The Company shall use commercially reasonable efforts to satisfy and fulfill the conditions precedent specified in Sections 2.01 a), c) and d). The Company shall notify Customer forthwith in writing of the Company's satisfaction or waiver of each condition precedent for the Company's benefit. If the Company concludes that it will not be able to satisfy or waive a condition precedent, it may, upon written Notice, terminate this Contract and upon giving such Notice, this Contract shall be of no further force and effect and each of the parties shall be released from all further obligations hereunder.

[redacted]

terminate this Contract by providing written notice thereof to Company at any time prior to the

[redacted]

[redacted]

3 CONTRACT TERM

This Contract shall be effective from the date hereof. However, the Services and the Company's obligation to provide the Services under Section 4 shall commence on the later of (such later date being the "**Day of First Delivery**") [redacted] Subject to the provisions hereof, this Contract shall continue in full force and effect for a period of five (5) Contract Years (the "**Initial Term**") and continuing thereafter on a year to year basis unless written Notice to terminate is provided by one party to the other at least three (3) Months prior to the end of the then-current term.

[redacted]

[redacted]

4 SERVICES PROVIDED

The Company agrees to provide Storage Services and Distribution Services as specified in Schedule 1 and Schedule 1a. [redacted]

[redacted]

5 FIRM DAILY CONTRACT DEMAND

[NOT USED].

6 RATES FOR SERVICE

Customer agrees to pay for Services herein pursuant to the terms and conditions of this Contract and the T2 Rate Schedule, as amended from time to time by the Ontario Energy Board.

7 EXPANSION FACILITIES

The Company will use commercially reasonable efforts to construct the Expansion Facilities to serve the Plant. The target date for completion of these facilities is July 16, 2024. The Company will provide written Notice to Customer when such facilities are complete and placed into service.

The Company and Customer agree that the Company shall not be obligated to construct any portion of the Expansion Facilities between December 15 of any year and March 31 of the subsequent calendar year.

8 AID AMOUNT PAYMENT SCHEDULE

Customer will be required to pay to the Company the Aid Amount of $0.00.

Any applicable taxes will be applied to all amounts paid under this Section. Customer warrants and represents that no payment to be made by Customer under this Contract is subject to any withholding tax.

9 CREDIT REQUIREMENTS

By no later than January 1, 2024, Customer shall provide financial assurances acceptable to the Company in accordance with the General Terms and Conditions.

10 AGENCY

If an agent on behalf of Customer executes this Contract then, if requested by the Company, the agent shall at any time provide a copy of such authorization to the Company.

Notwithstanding the provisions of Section 9 the agent shall be responsible for providing security arrangements acceptable to the Company in accordance with the General Terms and Conditions.

The agent and Customer acknowledge and agree that they are unconditionally and irrevocably jointly and severally liable for all Customer obligations under the Contract.

11 CONTRACT SUCCESSION

This Contract, unless terminated pursuant to Section 2 hereof, replaces all previous Gas Distribution Contracts between the parties, subject to settlement of any surviving obligations.

The undersigned execute this Contract as of the above date. If an Agent on behalf of Customer executes this Contract then, if requested by the Company, Agent or Customer shall at any time provide a copy of such authorization to the Company.

Enbridge Gas Inc.

Authorized Signatory

Tanya Mushynski, VP Customer Care

Please Print Name

CUSTOMER

Authorized Signatory

Chris Fralick

Please Print Name

Contract ID	
Contract Name	ATURA POWER

Schedule 1
Delivery, Storage and Distribution Services Parameters
Rate T2

1. DATES

This Schedule 1 is effective on the Day of First Delivery.

2. DAILY CONTRACT QUANTITY (DCQ)*

Ontario Point(s) of Receipt

Location	Obligated Daily Contract Quantity (DCQ) GJ per Day	Non-Obligated Maximum Daily Delivery Quantity GJ per Day
Dawn	[redacted]	[redacted]

*** Obligated DCQ does not include compressor fuel**

3. SUPPLY OF COMPRESSOR FUEL

Customer shall supply compressor fuel for the Company's distribution and storage services.

4. STORAGE PARAMETERS

Parameters	Quantity	Unit of Measure
Storage:		
Annual Firm Storage Space	[redacted]	GJ
Annual Firm Injection/Withdrawal Right (Utility provides deliverability inventory)	[redacted]	GJ per Day

5. DISTRIBUTION PARAMETERS

Delivery Pressures and Volumes

BBP				
Station #	**Meter Number**	**Minimum Delivery Pressure (kPa)**	**Maximum Hourly Volume (m^3/hour)**	**Firm Hourly Quantity (m^3/hour)**
06A-625I	2548275	[redacted]	[redacted]	[redacted]
	2548276			

Daily Contract Demand

Location	Firm (m^3/day)	Interruptible (m^3/day)
BBP	[redacted]	[redacted]

Maximum Number of Days Interruption: 40 Days
Notice Period for Interruption: 4 h**ours**

Negotiated Rate Parameters

Interruptible Transportation Commodity

BBP		
Jan 1, 2022 -	[redacted]	cents per m^3

6. MINIMUM ANNUAL VOLUME("MAV")

Location	Firm (m^3/year)	Interruptible (m^3/year)
BBP	[redacted]	0

Contract ID	
Contract Name	ATURA POWER

Schedule 1a
Supplemental Services Parameters
Rate T2

1 Firm Backstop Gas Service

Start	End	Location	Total Quantity (GJ)	Daily Quantity (GJ)	Demand Charge ($/GJ/month)	Commodity Charge ($/GJ)

2 Reasonable Efforts Backstop Gas Service

Start	End	Location	Total Quantity (GJ)	Daily Quantity (GJ)	Commodity Charge ($/GJ)

3 Market Priced Storage Space

Service	Start	End	Total Quantity (GJ)	Demand Charge ($/GJ)
MP Storage Space				

Market Priced (MP) Storage is storage space above the customer's storage space per Schedule 1.

4 Market Priced Storage Injection/Withdrawal

Service	Start	End	Total Quantity (GJ/day)	Demand Charge ($/GJ/month)	Commodity Charge (Rate/GJ)	Fuel Ratio (%)
MP Firm Injection / Withdrawal Right	Day of First Delivery		[redacted]	[redacted]	**As per the Rate Schedule**	**As per the Rate Schedule**

Market Priced (MP) injection/withdrawal rights (supplemental deliverability) are rights above the customer's injection/withdrawal rights per Schedule 1 to provide additional access to the storage space in the T2 Contract.

ENBRIDGE GAS INC.

Answer to Interrogatory from
Pollution Probe (PP)

INTERROGATORY

Question(s):

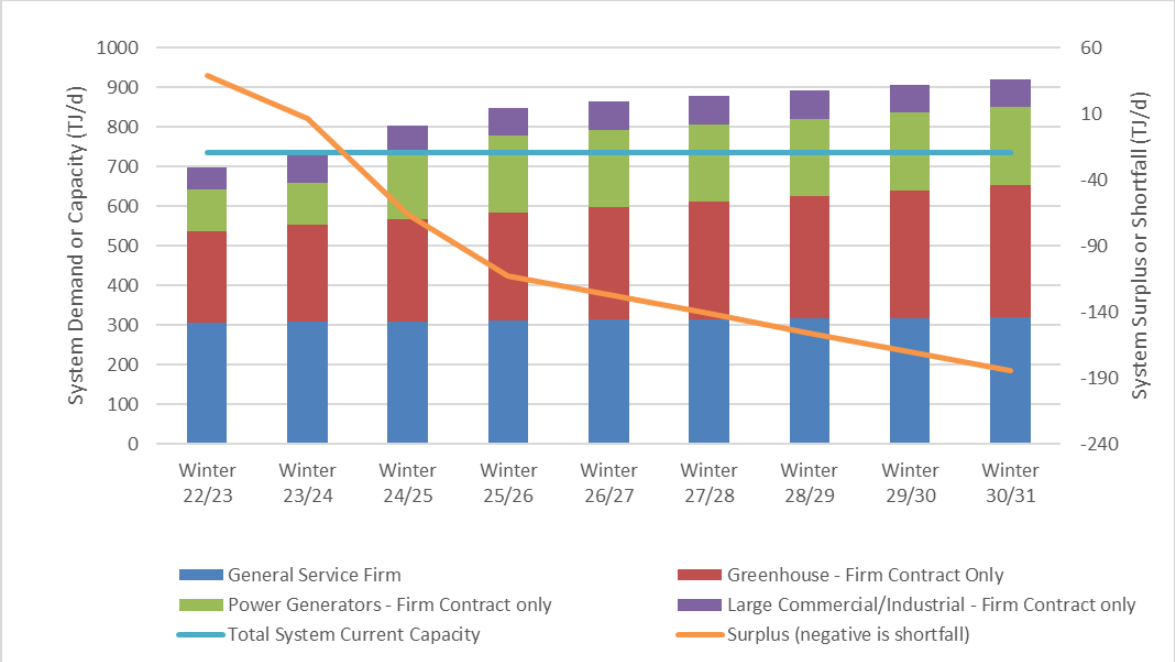
Please replicate Figure 3: Graph of the Forecast Panhandle System Capacity, Design Day Demand and Shortfall [B/2/1 Page 12] and segment the bars in the chart by the following categories:

- General Service
- Large Industrial/Commercial
- Greenhouse Market
- Power Generation

Response:

Please see Figure 1 below.

Figure 1: Graph of the Forecast Panhandle System Capacity, Design Day Demand (by Customer Type) and Shortfall



ENBRIDGE GAS INC.

Answer to Interrogatory from
Pollution Probe (PP)

INTERROGATORY

Question(s):

It appears that Enbridge has added the peak demand (current and forecasted increase) for all Contract demand customers to arrive at its forecast. The resulting system peak demand would be much lower if the customer peak demands are not concurrent (e.g. some peak in summer and others peak in winter). Please explain what analysis (if any) Enridge has done to reduce the projected system peak demand increase based on nonconcurrent customer peak demand.

Response:

Enbridge Gas already incorporates non-coincident customer peaking (demand diversity) into the design of the system. This approach recognizes that some customers do not consume their maximum demand at the same time. This demand diversity results in a lower total demand on the system. This method is currently used for the existing general service customers and contract rate customers where applicable.

Regarding winter and summer peak demands being stacked; winter peaks occur in the winter analysis and summer peaks occur in the summer analysis. To clarify, these demands are recognized as time of year specific and are not stacked for design day hydraulic modelling purposes.

ENBRIDGE GAS INC.

Answer to Interrogatory from
Pollution Probe (PP)

INTERROGATORY

Reference:

"No customer indicated that they would be willing to provide CIAC for a transmission system expansion project …" [A/4/1 Page 6].

Question(s):

a) Please provide a copy of the CIAC related survey/questions sent to customers.

b) Based on the information collected how many customers would pay a CIAC if it was required by the OEB, rather than forgo their forecasted incremental gas demand?

Response:

a) A survey and/or questions were not sent to customers. Please see the response at Exhibit I.STAFF.25, part a).

b) Customers generally indicated opposition to being required to provide CIAC to support transmission system expansion in this instance. No customer indicated that they would be willing to provide CIAC for a transmission system expansion project without understanding the magnitude of the CIAC and the unique justification for its selective application in this instance.[1]

[1] Exhibit A, Tab 4, Schedule 1, para. 21.

ENBRIDGE GAS INC.

Answer to Interrogatory from
Pollution Probe (PP)

INTERROGATORY

Question(s):

a) Please provide a list of the IRP alternatives considered for the Project.

b) Please provide a copy of the IRP assessment materials (form/checklist, presentation, report, or other materials) for each IRP option evaluated.

Response:

a) Please refer to Exhibit C, Tab 1, Schedule 1, Page 5, Paragraph 13.

b) See below for additional information/references regarding the IRPAs listed in part a) above. Please see Attachment 9 at Exhibit I.PP.16 for a summary of the alternatives assessment.

1. Firm exchange between Dawn and Ojibway

i) On September 16, 2021, Enbridge Gas completed a Request for Proposal ("RFP") for a Firm Exchange Service. The RFP package is included at Exhibit C, Tab 1, Schedule 1, Attachment 1.

ii) On September 19, 2021, Enbridge Gas held a virtual meeting with members of Energy Transfer Partners to determine whether they were interested in participating in the Firm Exchange Service RFP. The meeting invitation and minutes are included in the response at Exhibit I.FRPO.7, Attachment 1.

iii) On October 7, 2021, Enbridge Gas received a non-binding bid for a Firm Exchange Service which can be found at Exhibit I.PP.16, Attachment 1.

2. *Firm exchange between Dawn and Ojibway in combination with looping of the NPS 20 Panhandle Line west of Dover Transmission (Hybrid Alternatives)*

   i) The Hybrid alternative utilized the information noted above in part b) above.

   ii) Please see Exhibit C, Tab 1, Schedule 1, Table 4 (Hybrid Alternative Economic Assessment).

3. *Trucked Compressed Natural Gas ("CNG")*

   i) A CNG tube trailer has a natural gas capacity of approximately 10,000m3. Based on the capacity shortfall of 156TJ/day, or approximately 4,200,000m3/day, 420 trucks would be required.

   ii) Please refer to Exhibit C, Tab 1, Schedule 1, Page 16, Paragraph 62.

4. *ETEE*

   i) On April 21, 2023, Enbridge Gas engaged Posterity as part of the alternatives assessment for non-facility alternatives. Please see Attachment 1 to this response for the scoping document.

   ii) Enbridge Gas provided Posterity with the growth assumptions for general service (see Attachment 2 to this response).

   iii) A summary of the results from Posterity's analysis can be found in Exhibit C, Tab 1, Schedule 1, Attachment 3.

POSTERITY GROUP

Scoping Document: Panhandle Regional Expansion Project IRPA

Date: May 24, 2023

Whitney Wong
Enbridge Gas Inc.
500 Consumers Road
North York, M2J 1P8

Posterity Group
140 Yonge Street, Unit 200
Toronto, ON M5C 6S3

POSTERITY GROUP

Contents

1 Background and Objectives

Context

Enbridge Gas Inc. (EGI) requires integrated resource planning alternatives (IRPA) analysis support for the upcoming Panhandle Regional Expansion Project (PREP) leave to construct (LTC) application. The options assessed via this PREP IRPA analysis are enhanced targeted energy efficiency (ETEE), and demand response (DR).

Priorities for Posterity Group's Support

- Develop a scaled version of the IRPA model to support the PREP IRPA ETEE and DR analysis.
- Deliver analysis output in Excel and draft a memo highlighting findings.

2 Support Activities

Work Package 1 – PREP IRPA Analysis

Value and outcomes for Enbridge:

- Scaling the IRPA model will allow EGI to develop location (sub-region) specific estimates of ETEE and DR IRPAs.
- This scaled model approach will be faster and more defensible than trying to derive estimates from rate-zone level outputs; it will also be more cost effective than developing a unique model for LTC impacted customers.

Activities:

This work package involves scaling down the appropriate legacy rate-zone region in the IRPA model to enable ETEE and DR analysis on the subset of customers associated with the PREP IRPA analysis:

- Receive data on customers impacted as part of the PREP IRPA analysis [see Section 5 for a checklist of information we need from EGI].
- Identify the corresponding EGI and IESO sub-regions, and scale down this sub-region to align with customer data.
- Calibrate load shapes to customer subset.
- Update reference case growth rates to align with Enbridge's updated data for the applicable rate classes and segments.
- Include the full list of ETEE and DR measures.
- Run model to develop ETEE and DR outputs and QC model outputs.
- Post outputs to Excel and present the following information, on a year-by-year basis:
    - Peak hour reduction (m3/hr): by measure, end-use, customer type, and sector.
    - Annual consumption reduction: by measure, end-use, customer type, and sector.
    - Per-customer peak hour percentage change compared to the base year: by measure type, sector, and customer type.
    - Per-customer annual consumption percentage change compared to the base year: by measure type, sector, and customer type.
    - Cost: program spending by year and by measure.
    - Report peak reduction and cost for both ETEE and DR combined and separately.

- Provide measure data to calculate DCF+.
- Draft a memo highlighting findings.

3 Timeline

- Project Start Date: As soon as possible.
- Project Completion: Target 4 weeks after initiation.

4 Estimated Level of Effort

The table below presents a level of effort estimate for the proposed work.

Work Package	Level of Effort (hrs)	Hourly Rate ($/hr)	Budget
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]		[redacted]

Similar to previous engagements with EGI, we propose undertaking work on an hourly basis with a monthly billing cycle for fees incurred in the preceding month.

5 Checklist of Information we need from EGI

The checklist below presents the information we need from EGI as inputs for the ETEE and DR analysis.

- Weather normalized annual volume by customer:
  - Year should be clearly specified so that we can scale customer segments using the appropriate year in the IRPA model.
  - It likely makes sense for EGI to select the most recent calendar year for which it has a complete set of normalized annual volume data.
- Hourly Peak by customer:
  - Data from DOE (coincident system hourly peak on design day).
- Rate class, Sector, Segment data by customer:
  - We ideally need to map EGI data to the rate, sector, and segment data schema we have in the IRPA model [see tables below for a list of rate classes, sectors, and segments that are in the model].
  - If segment data doesn't perfectly match the options present in the IRPA model data schema, we may be able to make assumptions about how to characterize customer information (provided there are alternate segment descriptions to work with).
- Location by customer:
  - Only needed if customers span more than one IESO zone or legacy gas utility rate zone.
  - If needed, we would require postal code data by customer.
- Reference case growth rates:

- Direction on the specific rate classes/segments that are departing from the IRPA model's reference case.
- Updated growth rates for these rate classes/segments: account (customer) and consumption forecasts by rate class and segment.

Direction on how to extend growth rates out to 2063 (the final year in the forecast period): e.g., take annual growth rate for each rate class from 2022-2032, and extend the trend of annual changes in year-over-year growth out to 2063:

- Direction on hourly peak reduction target(s).
- Direction on timelines associated with peak reduction targets (e.g., are there milestone years that are important?).
- Direction on which customers should be excluded from IRPAs (i.e., IRPA will not be applied to these customers):
  - The hourly peak for these customers will show up in the forecast period, but IRPA measures will not be applied to this subset of customers (i.e., they will not contribute to peak reduction potential).
  - E.g., if there are contract customers in the dataset provided and these should be excluded, specifically identify the relevant rate class, sector and segments that should be excluded from IRPA measures.

Exhibit 1: Rate classes by Sector in IRPA Model

Residential	Commercial	Industrial
• E1 • U1 • 10 • 110 • 6 • M1 • M2 • M4	• 1 • 10 • 100 • 110 • 115 • 135 • 145 • 170 • 6 • 9 • M1 • M2 • M4 • M5A • M7 • R20 • T1 • T2	• 1 • 10 • 100 • 110 • 115 • 135 • 145 • 170 • 6 • M1 • M10 • M2 • M4 • M5 • M5A • M7 • M9 • R10 • R100 • R20 • R25 • T1

		• T2

Exhibit 2: Segments by Sector in the IRPA Model

Residential	Commercial	Industrial
• Detached House • Attached or Row House • Multi-Res_High Rise • Multi-Res_Low Rise • Low Income_SF • Low Income_MF • Large House • Other Residential	• Data Centre • Food Retail • Hospital • Large Hotel • Large Non-Food Retail • Large Office • Long Term Care • Other Commercial • Other Hotel_Motel • Other Non-Food Retail • Other Office • Restaurant • School • University_College • Warehouse • Street Lighting	• Agriculture • Chemicals Mfg • Fabricated Metals Mfg • Food and Beverage Mfg • Mining; Quarrying and Oil & Gas Extraction • Non-metallic Minerals Product Mfg • Other Industrial • Petroleum Mfg • Plastic and Rubber Mfg • Primary Metals Mfg • Pulp; Paper; and Wood Products Mfg • Transportation • Transportation and Machinery Mfg • Utility • Water & Wastewater Treatment • Hydrogen Production

POSTERITY GROUP

IRPA Analysis Project
Panhandle Regional Expansion Project Analysis Modelling Approach

Project: Integrated Resource Planning Alternative Analysis (IRPA Analysis)
Re: Panhandle Regional Expansion Project IRPA
Submitted by: Posterity Group (PG)
Date: June 5, 2023

This memo presents information on the approach that was taken to develop the model used for the Panhandle Regional Expansion Project (PREP) IRPA.

1 Notes on the Modeling Approach

The following sections summarize the modelling method used to conduct the analysis:

1.1 Model Updates

We started with the Posterity 'mirror model' of the 2019 Achievable Potential Study (APS), and incorporated the following updates to support IRPA modelling (creating the Posterity IRPA model):

- Calibrated the base year accounts to the 2021 accounts provided, calibrated the base year consumption to weather adjusted 2021 consumption, calibrated the total base year peak hour consumption per account to the 2021 value provided, and updated the reference case to align with Enbridge's forecast of customer growth for the PREP region.
- Corrected customer regional mapping for the base year and reference case according to customer data supplied by Enbridge (EGI).
- Added rate class and customer account data.
- Developed hours-use peak factors for each region, sector, segment, and end use.
- Added a residential demand response measure (Shifting Heating Off Peak).

1.2 Adjustments to Produce a Regional Model

We made the following adjustments to the Posterity IRPA model to produce a regional model:

- The Union Gas South - West region was selected. All other regions were ignored.
- Scenario B was used (the scenario with the greatest potential from the achievable potential study).
- Only the following rates were selected:
    - Residential: M1, M2
    - Commercial: M1, M2
    - Industrial: M1, M2

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- Using customer data for the PREP region, scaling factors were developed for each segment within the three sectors that were studied: residential, commercial, and industrial. These scaling factors were calculated by comparing the 2021 account numbers from the PREP dataset provided by EGI and the 2021 account numbers for the Union Gas South - West region from Posterity's IRPA model. This step was done to determine the proportion of accounts in the Union Gas South - West region that can be attributed to the PREP region. The scaling factors were applied to the accounts in Posterity's IRPA model to scale down the Union Gas South - West region to represent the PREP region.
- Accounts were added to each segment in the proportion that they were present in 2021 in the Union Gas South - West region from Posterity's IRPA model such that the total account growth in each sector matched the growth forecast provided by Enbridge for each year in the reference case. More information on the segments analyzed is provided in the following section.
- The Unit Energy Consumption (UEC) assumptions were calibrated for existing buildings to match the reference year (2021) consumption values for each sector provided in the PREP dataset. Additionally, the UEC assumptions for new buildings were also calibrated to match the expected growth in peak hourly demand forecasted for each sector from the dataset provided by EGI.

1.3 Segment Scaling Factors

Exhibit 1 below shows the segments that are accounted for in the IRPA model, the Union Gas South - West and PREP account numbers for 2021, and the account scaling factor derived from them. There are additional segments in the model that were not present in the PREP dataset and were thus assigned an account scaling factor of zero. Account scaling factors were slightly adjusted after the first iteration of the model to match the account numbers provided in the PREP dataset.

Exhibit 1– Segment Consumption Scaling Factors

Sector	Segment	Rate Class	2021 Union Gas South - West Accounts	2021 PREP Account	Account Scaling Factor
Residential	Detached House	M1	272,355	157,239	0.606
	Attached or Row House	M1	49,241	19,216	0.410
	Multi-Residential Low Rise	M1	3,907	6,082	1.634
	Multi-Residential High Rise	M1	3,685	1,036	0.295
		M2	117	66	0.593
	Low Income – Single Family	M1	67,927	804	0.012
	Low Income – Multi Family	M1	6,372	236	0.0389

		M2	205	19	0.097
Commercial	Food Retail	M1	1,434	657	0.463
		M2	40	14	0.358
	Hospital	M1	9	2	0.222
		M2	9	4	0.442
	Large Hotel	M2	13	9	0.711
	Large Non-Food Retail	M1	1,343	615	0.463
		M2	37	13	0.358
	Large Office	M1	1,670	15	0.009
		M2	64	61	0.958
	Long Term Care	M1	86	60	0.706
		M2	83	37	0.449
	Other Commercial	M1	9,095	4,853	0.539
		M2	460	221	0.485
	Other Motel/Hotel	M1	79	75	0.956
	Other Non-Food Retail	M1	4,858	2,227	0.463
		M2	134	48	0.358
	Other Office	M1	3,633	2,238	0.622
	Restaurant	M1	1,808	905	0.505
		M2	98	27	0.280
	School	M1	324	183	0.570
		M2	195	106	0.549
	Warehouse	M1	1,425	571	0.405
		M2	101	33	0.331
	University/College	M1	27	16	0.593
		M2	21	8	0.379

Industrial	Agriculture	M1	1,066	730	0.685
		M2	257	176	0.686
	Chemicals Manufacturing	M1	70	30	0.429
		M2	37	19	0.518
	Food and Beverage Manufacturing	M1	101	75	0.743
		M2	47	29	0.623
	Other Industrial	M1	863	672	0.779
		M2	288	191	0.662
	Primary Metals Manufacturing	M2	8	1	0.126
	Pulp, Paper, and Wood Products Manufacturing	M1	135	79	0.585
		M2	23	6	0.263
	Transportation and Machinery Manufacturing	M2	10	2	0.202
	Power and Other Utility	M1	156	103	0.660

Exhibit 2 shows the segments that are accounted for in the IRPA model, the number of accounts by rate class in 2021 in the Union Gas South - West region, and the corresponding account scaling factors used to implement the growth forecast provided by Enbridge. The account scaling factors are calculated as a percentage of the total number of accounts within the sector and rate class, with the sum of all of the account scaling factors for each sector adding up to one. These account scaling factors are then multiplied by the number of new accounts for each sector and rate class in a given year to reflect the growth rate with accurate proportions. Due to the fact that there was no growth rate forecasted in the general service industrial sector during the years analyzed, account scaling factors are not required for that sector. As with the consumption scaling, there are additional segments in the model that were not present in the PREP dataset and were thus assigned an account scaling factor of zero (i.e., Large House).

Exhibit 2 – Segment Accounts Growth Factors

Sector	Segment	Rate Class	2021 Union Gas South - West Accounts	Accounts Scaling Factor
Residential	Detached House	M1	272,355	0.6745
	Attached or Row House	M1	49,241	0.1219
	Multi-Residential Low Rise	M1	3,907	0.0097

	Multi-Residential High Rise	M1	3,685	0.0091
		M2	117	0.0003
	Low Income – Single Family	M1	67,927	0.1682
	Low Income – Multi Family	M1	6,372	0.0158
		M2	205	0.0005
Commercial	Food Retail	M1	1,434	0.0530
		M2	40	0.0015
	Hospital	M1	9	0.0003
		M2	9	0.0003
	Large Hotel	M2	13	0.0005
	Large Non-Food Retail	M1	1,343	0.0496
		M2	37	0.0014
	Large Office	M1	1,670	0.0617
		M2	64	0.0024
	Long Term Care	M1	86	0.0032
		M2	83	0.0031
	Other Commercial	M1	9,095	0.3363
		M2	460	0.0170
	Other Motel/Hotel	M1	79	0.0029
	Other Non-Food Retail	M1	4,858	0.1796
		M2	134	0.0050
	Other Office	M1	3,633	0.1343
	Restaurant	M1	1,808	0.0669
		M2	98	0.0036
	School	M1	324	0.0120
		M2	195	0.0072
	Warehouse	M1	1,425	0.0527

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		M2	101	0.0037
	University/College	M1	27	0.0010
		M2	21	0.0008

ENBRIDGE GAS INC.

Answer to Interrogatory from
Pollution Probe (PP)

INTERROGATORY

Question(s):

Please provide a copy of the following:
a) Communications to current or proposed customers fed (directly or indirectly) from the Panhandle system with the potential demand or pressure challenges that Enbridge has highlighted in this Leave to Construct application.

b) Communications to current or proposed customers fed (directly or indirectly) from the Panhandle system that were asked for input on IRP options or alternatives.

c) Communications to current or proposed customers fed (directly or indirectly) from the Panhandle system indicating that a contribution (e.g. CIAC), charge or other fee may be required from the customer to support the proposed Reinforcement.

Response:

Regarding the interrogatory's reference to directly or indirectly-fed customers, please see the response at Exhibit I.STAFF.25, part b).

a) Enbridge Gas did not discuss Panhandle system demand or pressure challenges with customers.

b) Enbridge Gas did not discuss integrated resource planning with customers. However, customers who responded to the EOI/ROS were asked to provide additional information regarding the viability of interruptible service as an alternative to new firm service, including whether they would be more inclined to consider interruptible service over new firm service if the ability to negotiate lower than posted interruptible rates was available. Customers were also asked to confirm that their EOI bid amounts are inclusive of all future expected natural gas conservation activities, including natural gas conservation activities within and outside of Enbridge Gas's Demand Side Management programs, and the use of non-natural gas alternatives.[1] The questions can be found at Exhibit B, Tab 1, Schedule 1, Attachment 8, p. 6, and Exhibit B, Tab 1, Schedule 1, Attachment 9, pp. 1-2.

c) Please see the response at Exhibit I.STAFF.25, part a).

[1] Exhibit A, Tab 4, Schedule 1, para. 16.

ENBRIDGE GAS INC.

Answer to Interrogatory from
Pollution Probe (PP)

INTERROGATORY

Question(s):

a) Please provide a copy of all marketing and communication material provided to consumers/businesses served by the Panhandle system to promote (targeted) DSM or other energy efficiency opportunities.

b) Please provide a copy of all communication material provided by Enbridge or partners to educate consumers/businesses served by the Panhandle system on options and incentives under the Greener Homes program (delivered by Enbridge in Ontario).

c) Please provide a table (or marketing material if a table is already included) of potential Greener Homes Grant Program incentives for residential homes, including those for air source heat pumps.

d) Please confirm how many customers served by the Panhandle system have expressed interest to leverage incentives through the Grener Homes Grant program.

e) Please confirm how many customers served by the Panhandle system have completed one or more home audits required to participate in the Greener Homes Grant Program.

f) Has Enbridge conducted analysis on consumers served by the Panhandle system that can or have (currently or recently) participated in the Greener Homes Grant Program. If yes, please provide a copy of the information and analysis.

Response:

a) and b)
The Company has not directly marketed DSM or other energy efficiency opportunities to consumers but rather relies on mass marketing materials and communications to all existing and potential customers. Information regarding these programs can be found at the following links:

https://www.enbridgegas.com/residential/rebates-energy-conservation
https://www.enbridgegas.com/business-industrial/incentives-conservation

c) Please see Attachment 1 to this response.

d) and e)
Enbridge Gas notes that the Canada Greener Homes Grant is an initiative funded by the Government of Canada (not by OEB ratepayers or Enbridge Gas) and is administered by the Company on behalf of the Government of Canada.

In August 2022, Enbridge Gas executed an agreement with NRCan consistent with the principles set out in the OEB's DSM Framework. The agreement provides funding to Enbridge Gas to administer and offer Canada Greener Homes Grant audit and efficiency measure rebates to Ontario consumers and allows for stacking of funding from the Company's DSM programs to enhance rebates. Based on the agreement and under the role of a program administrator, Enbridge Gas has an obligation to seek consent from NRCan prior to the public release of information related to the NRCan initiative. Enbridge Gas has contacted NRCan to seek permission to provide a response to the interrogatory and will respond when the Company receives approval/acceptance from NRCan regarding the public submission of information related to the NRCan initiative.

f) No.

OEB-APPROVED ADDITIONAL MEASURE INCENTIVES FOR JOINT RESIDENTIAL WHOLE HOME PROGRAM

NRCan Canada Greener Homes Grant Measures	NRCan Incentive	EGI Proposed Enhanced Incentive	OEB-Approved Measures	OEB-Approved Incentives for EGI	Total Enhanced Incentive (NRCan + OEB-Approved EGI)
Energy Audits			**Energy Audits**		
ENERGuide Pre & Post Evaluations	$600	$0	ENERGuide Pre & Post Evaluations	$0	$600
Attic/Cathedral Insulation			**Attic/Cathedral Insulation**		
Increase attic insulation to at least R50 from less than R12	$1,800	$200	Increase attic insulation to at least R50 from less than R12	$550	$2,350
Increase attic insulation to at least R50 from greater than R12 up to R25	$600	$400	Increase attic insulation to at least R50 from greater than R12 up to R25	$200	$800
Increase attic insulation to at least R50 from greater than R25 up to R35	$250	$600	Increase attic insulation to at least R50 from greater than R25 up to R35	$75	$325
Increase cathedral/flat roof insulation to at least R-28 from R12 or less	$600	$400	Increase cathedral/flat roof insulation to at least R-28 from R12 or less	$200	$800
Increase cathedral/flat roof insulation to at least R-28 from greater than R12 up to R25	$250	$600	Increase cathedral/flat roof insulation to at least R-28 from greater than R12 up to R25	$75	$325
Upgrade uninsulated cathedral ceiling/flat roof to at least R20 from R12 or less	$600	$400	Upgrade uninsulated cathedral ceiling/flat roof to at least R20 from R12 or less	$200	$800
Exterior Wall Insulation			**Exterior Wall Insulation**		
For adding insulation value of at least greater than R20 for 100% of building	$5,000	$2,500	For adding insulation value of at least greater than R20 for 100% of building	$1,750	$6,750
For adding insulation value greater than R12 up to R20 to 100% of the building	$3,800	$1,700	For adding insulation value greater than R12 up to R20 to 100% of the building	$1,200	$5,000
For adding insultation value greater than R7.5 up to R12 for 100% of building	$3,300	$1,200	For adding insultation value greater than R7.5 up to R12 for 100% of building	$1,200	$4,500
Exposed Floor Insulation			**Exposed Floor Insulation**		
For adding insulation value of at least R20 for entire exposed area (minimum area of 11 square meters or 120 square feet)	$350	$150	For adding insulation value of at least R20 for entire exposed area (minimum area of 11 square meters or 120 square feet)	$100	$450
Basement Insulation			**Basement Insulation**		
For sealing and insulating at least 80% of basement header to a minimum R20	$240	$110	For sealing and insulating at least 80% of basement header to a minimum R20	$85	$325
For sealing and insulating at least 50% of the entire basement slab by a minimum of R3.5	$400	$200	For sealing and insulating at least 50% of the entire basement slab by a minimum of R3.5	$150	$550
For adding insulation value greater than R22 to 100% of basement	$1,500	$1,000	For adding insulation value greater than R22 to 100% of basement	$500	$2,000

NRCan Canada Greener Homes Grant Measures	NRCan Incentive	EGI Proposed Enhanced Incentive	OEB-Approved Measures	OEB-Approved Incentives for EGI	Total Enhanced Incentive (NRCan + OEB-Approved EGI)
For adding insulation value of R10 to R22 to 100% of basement	$1,050	$450	For adding insulation value of R10 to R22 to 100% of basement	$350	$1,400
For adding insulation value of R10 to R22 to 100% of exterior crawl space wall area, including header	$1,300	$700	For adding insulation value of R10 to R22 to 100% of exterior crawl space wall area, including header	$400	$1,700
For adding insulation value of R10 to R22 to 100% of exterior crawl space wall area, including header	$1,040	$460	For adding insulation value of R10 to R22 to 100% of exterior crawl space wall area, including header	$360	$1,400
For adding insulation value greater than R24 to 100% of crawl space ceiling	$800	$400	For adding insulation value greater than R24 to 100% of crawl space ceiling	$250	$1,050
Furnace/Boiler			**Furnace/Boiler**		
N/A	N/A	.N/A	N/A	N/A	N/A
Space Heating Heat Pump			**Space Heating Heat Pump**		
Install a ground source heat pump – full system.	$5,000	$0	Install a ground source heat pump – full system.	$1,500	$6,500
Replace a ground source heat pump – heat pump unit only.	$3,000	$0	Replace a ground source heat pump – heat pump unit only.	$1,000	$4,000
Install a complete ENERGY STAR certified new or replacement air source heat pump (ASHP) system or a variable capacity cold climate air source heat pump (ccASHP) system. The system must be intended to service the entire home.	$2,500	$0	Install a complete ENERGY STAR certified new or replacement air source heat pump (ASHP) system or a variable capacity cold climate air source heat pump (ccASHP) system. The system must be intended to service the entire home.	$750	$3,250
Install a complete ENERGY STAR certified new or replacement air source heat pump (ASHP) system, intended to service the entire home.	$4,000	$0	Install a complete ENERGY STAR certified new or replacement air source heat pump (ASHP) system, intended to service the entire home.	$1,250	$5,250
Install a complete new or replacement variable capacity cold climate air source heat pump (ccASHP) system, intended to service the entire home.	$5,000	$0	Install a complete new or replacement variable capacity cold climate air source heat pump (ccASHP) system, intended to service the entire home.	$1,500	$6,500
Water Heating			**Water Heating**		
Replace domestic water heater with an ENERGY STAR certified domestic hot water heat pump (DHW-HP)	$1,000	$0	Replace domestic water heater with an ENERGY STAR certified domestic hot water heat pump (DHW-HP)	$300	$1,300
Windows & Doors			**Windows & Doors**		
Replace windows or sliding glass doors with ENERGY STAR most efficient models.	$250	$0	Replace windows or sliding glass doors with ENERGY STAR most efficient models.	$75	$325
Replace windows or sliding glass doors with ENERGY STAR certified models.	$125	$0	Replace windows or sliding glass doors with ENERGY STAR certified models.	$50	$175
Replace hinged doors, with or without sidelites or transoms with ENERGY STAR certified models.	$125	$0	Replace hinged doors, with or without sidelites or transoms with ENERGY STAR certified models.	$50	$175

NRCan Canada Greener Homes Grant Measures	NRCan Incentive	EGI Proposed Enhanced Incentive	OEB-Approved Measures	OEB-Approved Incentives for EGI	Total Enhanced Incentive (NRCan + OEB-Approved EGI)
Air Sealing			**Air Sealing**		
Achieve base target	$550	$0	Achieve base target	$175	$725
Achieve 10% or more above base target	$810	$0	Achieve 10% or more above base target	$240	$1,050
Achieve 20% or more above base target	$1,000	$0	Achieve 20% or more above base target	$300	$1,300
Renewable Energy System			**Renewable Energy System**		
Install solar panels (photovoltaic (PV) system) ≥ 1.0 kW	$1,000 per kW	$0	N/A	$0	$1,000 per kW
Resiliency Measures			**Resiliency Measures**		
Batteries connected to Photovoltaic systems	$1,000	$0	Batteries connected to Photovoltaic systems	$0	N/A
Roofing Membrane	$150	$0	Roofing Membrane	$0	N/A
Foundation water-proofing	$875	$0	Foundation water-proofing	$0	N/A
Moisture proofing crawl space floor, walls and headers	$600	$0	Moisture proofing crawl space floor, walls and headers	$0	N/A
Thermostat			**Thermostat**		
Replace a manual thermostat with a programmable thermostat	$50		Replace a manual thermostat with a programmable thermostat	$20	$70
Replace a manual thermostat with a adaptive thermostat (Natural gas heated participants in the Enbridge franchise area are eligible for an ehanced $75 rebate (or $125 rebate if Moderate Income eligible), all other participants eligible for $50 rebate.	$50	$75	Replace a manual thermostat with a adaptive thermostat (Natural gas heated participants in the Enbridge franchise area are eligible for an ehanced $75 rebate (or $125 rebate if Moderate Income eligible), all other participants eligible for $50 rebate.	$75	$125
Multi Measure Bonus			**Multi Measure Bonus**		
N/A	$0		N/A	N/A	N/A

ENBRIDGE GAS INC.

Answer to Interrogatory from
Pollution Probe (PP)

INTERROGATORY

Reference:

Final Transcript for EB-2022-0157 Enbridge LTC Panhandle Day 2, Page 2 lines 14-21.

Question(s):

a) Enbridge confirmed that there approximately 5-6 customers directly served from the Panhandle transmission pipelines. Please confirm this remains accurate and if not, please provide an update.

b) If customers are directly served from the pipeline, please explain why EBO 188 requirements do not apply.

Response:

For clarity, the Panhandle System is comprised of transmission pipelines to transport natural gas between Enbridge Gas's Dawn Compressor Station, located in the Township of Dawn-Euphemia and the Ojibway Valve Site, located in the City of Windsor. The Panhandle System feeds distribution systems serving residential, commercial, and industrial markets in the municipalities of Dawn- Euphemia, St. Clair, Chatham-Kent, Windsor, Lakeshore, Leamington, Kingsville, Essex, Amherstburg, LaSalle, and Tecumseh. Please see Exhibit B, Tab 2, Schedule 1 for information regarding the Panhandle system, including Figure 1 at p. 2 for a visual representation of the Panhandle System.

The Project consists of:

- Approximately 19 km of Nominal Pipe Size ("NPS") 36 natural gas pipeline with a Maximum Operating Pressure ("MOP") of 6040 kPag from the existing Enbridge Gas Dover Transmission Station in the Municipality of Chatham-Kent to a new valve site in the Municipality of Lakeshore; and,
- Ancillary measurement, pressure regulation, and station facilities within the Township of Dawn Euphemia and in the Municipality of Chatham-Kent.

Please see Exhibit D, Tab 1, Schedule 1 for information regarding the Project, including Figure 1 at p. 2 for a visual representation of the Project (in red).

a) Confirmed for the Panhandle System. Not confirmed for the Project. Please see the information provided above.

b) No customers will be directly connected to the Project.

ENBRIDGE GAS INC.

Answer to Interrogatory from
Pollution Probe (PP)

INTERROGATORY

Reference:

Exhibit C,, Tab 1, Schedule 1, Attachments 2 & 3

Question(s):

a) Please explain how current and potential customer feedback was collected and used in the Posterity IRP analysis and reports.

b) Please provide a list of customers surveyed for their consideration of (targeted) DSM, fuel switching or other IRP alternatives.

c) Please provide a list of stakeholders consulted during the IRP analysis and report creation.

d) Please explain how/if Posterity was involved in the selection of IRP Pilot options (per the EB-2020-0091 Decision) and why this Project was not considered.

e) If electric-ccASHPs with electric backup were added as an IRP incentive option, please explain what impact that would have on the Posterity analysis for this Project.

f) Please provide an estimate of the peak demand reduction if 10% of the residential customers served by the Panhandle system left the gas system for other options.

g) Please provide an estimate of the peak demand reduction if the proposed Stellantis facility used non-gas options (e.g. geothermal, etc.) for space and water heating.

Response:

Please note that Exhibit C, Tab 1, Schedule 1, Attachment 2 referenced within the interrogatory reflects Posterity's 2022 analysis which was filed June 10, 2022 and was not updated within Enbridge Gas's amended application filed in June 2023. The responses to this interrogatory are being provided in relation to Exhibit C, Tab 1, Schedule 1, Attachment 3 which reflects Posterity's 2023 analysis which was an update within the Company's amended application filed in June 2023.

a) – c)
The scope of the Posterity analysis consisted of the general service market and did not include customer or stakeholder feedback.

d) The issue of the selection of pilot options for the IRP Pilot Projects (EB-2022-0335) is not within the scope of this proceeding.

e) The OEB determined that it not appropriate to provide funding for electricity IRP alternatives,[1] therefore electric-ccASHP with electric backup was not considered within Posterity's analysis.

f) 16.4 TJ/d based on Winter 2023/2024 demand.

g) Details of the planned peak demand by end use application (space heating, process, DHW, and power generation) for the NextStar battery plant has not been shared with Enbridge Gas. Absent this information or comparable information from other similar operations within Enbridge Gas's franchise area the Company is not able to provide an estimate of peak demand reduction possible from non-gas alternatives (if any).

[1] OEB IRP Framework for Enbridge Gas (EB-2020-0091), p. 6.

ENBRIDGE GAS INC.

Answer to Interrogatory from
Pollution Probe (PP)

INTERROGATORY

Reference:

Exhibit E, Tab 1, Schedule 5, Page 1

Question(s):

a) Please confirm Year 1 in the DCF Table represents 2024 and that the Year 1 Revenue figure represents 2 months (i.e. In-service November 1, 2024). If incorrect, please provide the correct interpretation.

b) Please provide a table and corresponding pie chart (with percent) breaking the Year 1 ($3,572,000) and Year 7 ($9,246,000) Revenues into the following categories:
• General Service
• Large Industrial/Commercial
• Greenhouse Market
• Power Generation

c) For the Year 7 Revenue ($9,246,000), what percent of the revenue is related to customers that are on the system before Year 1 (i.e. currently) and what percent is due to new incremental customers?

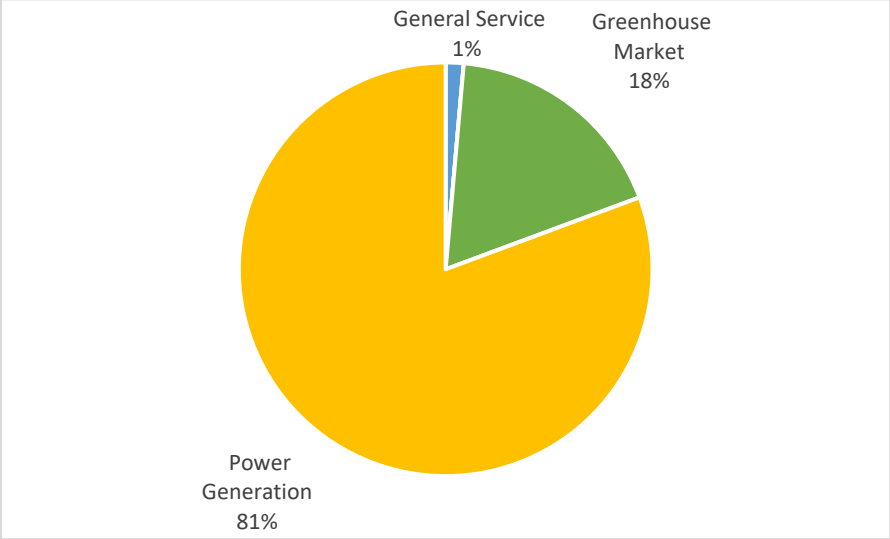
Response:

a) Not confirmed. Year 1 represents the first year of in-service for the Project (i.e., November 2024 to October 2025).

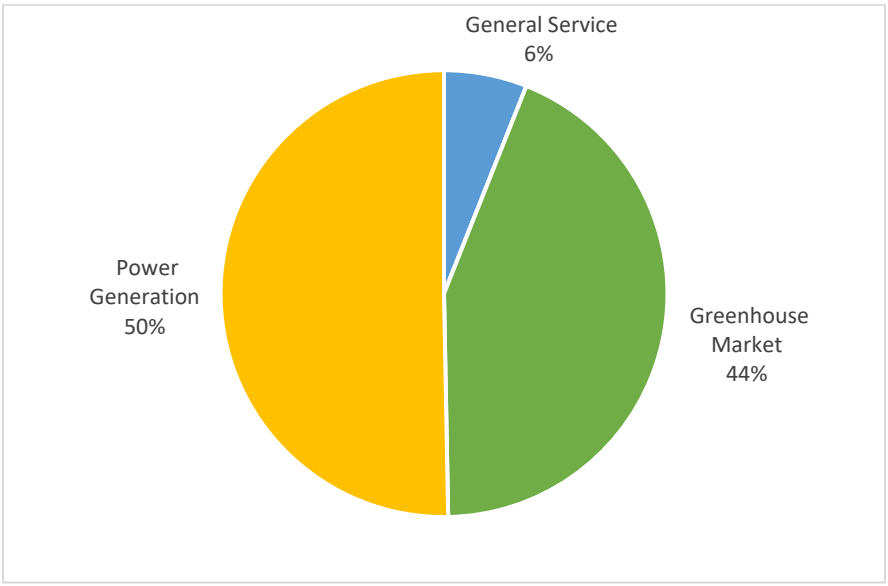
b) Please see below for the requested information.

Category	**Year 1 - Project Transmission Margin ($000's)**	**Year 7 - Project Transmission Margin ($000's)**
General Service	50	556
Large Industrial/Commercial	0	0
Greenhouse Market	641	4,039
Power Generation	2,881	4,651
Total	**3,572**	**9,246**

Year 1 – Project Transmission Margin (%)



Year 7 – Project Transmission Margin (%)



c) The revenue underlying the DCF analysis as seen at Exhibit E, Tab 1, Schedule 4, p. 1 is not established at the customer level. Rather, it relies on the transmission margin for the forecasted contract and general service demands on an aggregate basis. Enbridge Gas is therefore unable to provide the requested information.

ENBRIDGE GAS INC.

Answer to Interrogatory from
Pollution Probe (PP)

INTERROGATORY

Question(s):

Enbridge indicated in its Rebasing application (EB-2022-0200) that PREP is significantly different (e.g. larger) from other proposed projects over the 2024-2028 period.

a) Please explain how this project is different from other projects in the 2024-2028 timeframe (and/or provide the relevant EB-2022-0200 references providing this information).

b) Please explain the treatment Enbridge proposes for recovery from rate payers for this project and how/why it differs from the typical approach used to recover costs related to large projects requiring Leave to Construct approval.

Response:

a) and b)
Enbridge Gas is not seeking cost recovery of the Project as part of this application.[1]

Please see Table 1 at Exhibit E, Tab 1, Schedule 1, Page 2 for a project cost comparison to a recent Enbridge Gas pipeline project in close proximity to the Project area.

[1] Exhibit A, Tab 3, Schedule 1, para. 13.

ENBRIDGE GAS INC.

Answer to Interrogatory from
Pollution Probe (PP)

INTERROGATORY

Question(s):

Has Enbridge conducted a risk assessment on the probability that the proposed Project will become a stranded asset before being fully depreciated? If yes, please provide a copy of the assessment and all related materials. If no, what evidence exists to support that the pipeline will remain used and useful for the full amortization period.

Response:

Enbridge Gas has no reasonable basis to believe that the proposed facilities will become stranded assets and thus has had no reason to complete the assessment in question.

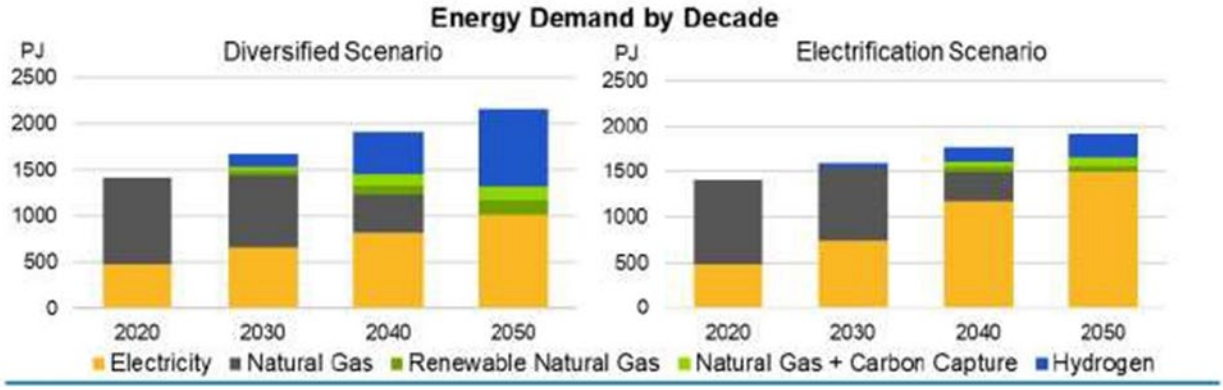
ENBRIDGE GAS INC.

Answer to Interrogatory from
Pollution Probe (PP)

INTERROGATORY

Reference:

Pathways to Net Zero Emissions for Ontario 1.



Question(s):

Enbridge indicates that for both the (Enbridge-preferred) Diversified Scenario and the Electrification Scenario that by 2050 natural gas will no longer be used in Ontario with the potential exception of select large volume industrial customers that have economic access to carbon capture and geological sequestration.

a) Please explain why an amortization period past 2050 (i.e. greater than 25 years) is appropriate if natural gas will no longer be available to these customers prior to 2050.

b) Please confirm that Enbridge has not received approval (from the OEB, TSSA or other relevant regulator) for use of 100% hydrogen for the Project assets proposed. If approval has been received for 100% hydrogen, please provide a copy of such approval.

c) If Enbridge intends to use hydrogen to serve Panhandle customers once natural gas is no longer available, please provide details on the source, transmission and lifecycle carbon emissions of the proposed hydrogen.

Response:

a) PP's interrogatory is premised on an inaccurate characterization of the Pathways to Net Zero Emissions for Ontario Study ("P2NZ"). The objective of the P2NZ study was not to forecast, predict or define an "Enbridge-preferred" future Ontario scenario, rather, the analysis was meant to consider different scenarios, each with a set of established assumptions, for how Ontario's energy system might support the achievement of net zero emissions by 2050 in the province. There are many different permutations that a diversified scenario could take.

   Enbridge Gas submits that the P2NZ's net-zero emissions by 2050 provincial-level scenario analyses does not represent a forecast or prediction of what is expected to occur in the Panhandle project's areas of impact. Enbridge Gas's natural gas demand forecast for the Project relies on the energy interests expressed by actual customers within the Project area. Based on the current demand forecast, Enbridge Gas does not have any indication that the pipe would not be utilized in or post 2050 and, therefore, at this point in time does not believe that an amortization of 25 years would be appropriate. If Enbridge Gas becomes aware of customers leaving the system or decreased utilization in the future, it will revise depreciation studies to accelerate recovery to reduce risk of stranded costs.

b) Confirmed.

c) Enbridge Gas has proposed a Hydrogen Blending Grid Study (EB-2022-200, Exhibit 4, Tab 2, Schedule 6, pages 16 to 18) to help identify and prioritize the sections of the gas grid most suitable for hydrogen blending and to identify associated costs and benefits. Until the completion of this study, it is not yet known how hydrogen may be able to serve the Project area.

ENBRIDGE GAS INC.

Answer to Interrogatory from
Pollution Probe (PP)

INTERROGATORY

Reference:

IESO Pathways to Decarbonization Report - Pathways to Decarbonization (ieso.ca)

Question(s):

IESO analysis suggests that natural gas capacity can be reduced to 8,000 MW from the current 10,000 MW by 2035 and completely phased out in the 2050 scenario.

a) Please provide Enbridge's assumptions for how long each current or proposed gas fired generating station served (directly or indirectly) by the Panhandle system will be in service.

b) Please confirm the amortization period for the proposed pipeline.

c) If the proposed amortization period for the proposed pipeline is greater than 25 years (i.e. by 2050), please explain how recovery of the unamortized portion of the pipeline will be recovered if no gas fired generating stations remain on the Panhandle system.

Response:

a) Both of the gas-fired generation customers that bid into the EOI received contract extensions of 10 years or more from the IESO. Although the draft Clean Electricity Regulations released by the government of Canada notes that the new regulations will come into effect in 2035, at this time, Enbridge Gas has no reason to believe that these power producers will not remain connected to the Panhandle System after their current contract, as these gas-fired generators can remain operational in the future by pursuing energy transition solutions that allow them to meet net zero goals. In addition, the draft Clean Electricity Regulations released by the government of Canada also makes reference to allowing natural gas facilities to operate outside of the performance standard for short periods of time over the course of the year; therefore, these gas plants could be kept as a backup to address periods of high demand or to balance variable production from renewables.

b) The current OEB-approved depreciation rate for transmission pipelines in the Union Rate Zone assumes an average service life of 55 years.

c) The impacts of the energy transition remain uncertain. As noted in part a), Enbridge Gas has no reason to expect, at this point, that power generators will not be connected to the Panhandle System for the duration of the asset's average service life. Further, changes over the next 25 years could result in other existing or new customers utilizing the system. Enbridge Gas expects that it will be able to recover the costs of prudently invested capital. If changes in future utilization indicate the need for a shorter average service life, the Company would leverage regulatory processes and mechanisms (e.g. accelerated depreciation) to maintain the regulatory compact.

Enbridge Gas is not seeking cost recovery of the Project as part of this application.[1]

[1] Exhibit A, Tab 3, Schedule 1, para. 13.

ENBRIDGE GAS INC.

Answer to Interrogatory from
Pollution Probe (PP)

INTERROGATORY

Question(s):

The Environmental Report published April 22, 2022 was file for this application on June 10, 2022 as EGI_Appl_Panhandle Regional Expansion Project_F-1-1_Attachment 1_20220610. Updates were identified in the summary table to the updated application that relate to the Environmental Report, but it appears than an updated Environmental Report was not filed.

a) Please indicate if the Environmental Report filed June 10, 2022 is the current version and if so, how the project updates have been applied. If there is an updated version of the Environmental Report, please file a copy and provide a summary of the differences between the June 2022 version and the most recent version.

b) Was the OPCC and related stakeholder consultation process conducted for the Updated Project or is Enbridge relying on the process used for the previous Project submitted in 2022?

c) Was additional consultation, surveys or open houses conducted related to the Updated Project? If yes, please provide a copy of the materials used and any feedback received.

Response:

Pollution Probe has incorrectly characterized Enbridge Gas's updated evidence. The summary table provided in Enbridge Gas's covering letter to the Company's June 16, 2023 updated application does not identify updates that relate to the Environmental Report ("ER"). The ER can be found at Exhibit F, Tab 1, Schedule 1, Attachment 1.

a) The ER filed June 10, 2022 is the current version (Exhibit F, Tab 1, Schedule 1, Attachment 1). Regarding the requirement for updates to the ER to reflect the amended application filed June 16, 2023, please see Exhibit F, Tab 1, Schedule 1, Paragraph 4, "In May 2023 AECOM confirmed that that the ER included at Attachment 1 to this Exhibit remains appropriate with respect to the 2023 updated Project scope."

b) Enbridge Gas is relying on the consultation process conducted for the Project in 2022. However, OPCC members, Municipalities, Conservation Authorities, Indigenous communities and landowners were notified that the original application was placed into abeyance in December 2022, and of Enbridge Gas's intention to file the amended application with a revised in-service date of November 1, 2024 for the Project.

c) Please see the responses to part b) above and Exhibit I.STAFF.29.

ENBRIDGE GAS INC.

Answer to Interrogatory from
Pollution Probe (PP)

INTERROGATORY

Question(s):

Please provide an update on the negotiation and execution of agreements required for the proposed Project (e.g. # outstanding and impact if they are not completed)

Response:

Option agreements in addition to easement and temporary workspace agreements have been secured with all except 2 landowners. Option agreements will be exercised upon leave to construct. If all land rights are not obtained to facilitate construction in 2024, Enbridge Gas may install an above-ground tie-in valve, in order to place the pipeline into service to meet Winter 2024/2025 demands. If land rights have not been secured for the properties related to the remaining two landowners after approval of the Project by the OEB, Enbridge Gas would pursue expropriation.

ENBRIDGE GAS INC.

Answer to Interrogatory from
School Energy Coalition (SEC)

INTERROGATORY

Reference:

[E-1-1, p.1] Enbridge states that: “The costs are based upon a class 3 estimate prepared in Q1 2023, updated to reflect market conditions based on Q4 2022 contractor responses to RFP”.

Question(s):

a. How many contractors responded to the RFP and what was each of their bids?

b. Is the contract work being undertaken as part of Enbridge’s ‘Alliance Partners’ contracts?

c. Please explain the structure of the contracts and the specific details regarding allocation of cost risk.

Response:

a. Enbridge Gas invited 7 proponents to bid and received 6 responses. Enbridge Gas invites proponents to present their technical, commercial, and socio-economic offerings in their proposal. Proposals are evaluated against pre-established evaluation criteria to determine a fair and lawful evaluation outcome that may result in the awarding to one or more proponents. Proposals are complex and the evaluation of proposals requires assessment of many factors, including but not limited to technical, health and safety, environmental matters – in addition to bid price. As such, bid amounts would not be valuable information.

   The average proposal price from the top three (3) most competitive proponents was used for the current estimate. The contract has not yet been executed for the Project.

b. No. To ensure a competitive bidding process Enbridge Gas included proponents that are not master agreement holders therefore existing master agreements (such as the Alliance contracts) were not used.

c. The contract has not yet been executed for the Project and therefore finalized details regarding allocation of cost risk are not available. Alternative contract structures including lump sum and unit price were requested as part of the RFP process.

   Enbridge Gas considers lump sum and unit price contract structures to manage the risk of cost overages on construction projects. These contract structures incentivize construction contractor(s) to manage their resources efficiently by allocating the risk of cost overruns due to inefficient use of resources to the construction contractor(s). Other cost risks that are external to Enbridge Gas and the construction contractor(s), such as severe weather conditions, are shared between Enbridge Gas and the construction contractor(s).

ENBRIDGE GAS INC.

Answer to Interrogatory from
School Energy Coalition (SEC)

INTERROGATORY

Reference:

E-1-2

Question(s):

With respect to the updated project costs and scope:

a. Please provide a table that shows, broken down by category, a comparison of projects costs in the original and updated application, limited to the project scope included in the updated application.

b. Please provide a detailed explanation of costs increased, by category, including in part (a).

Response:

a) Please see Table 1 below:

Table 1: Project Costs Comparison

		19km of NPS 36 Pipeline and Ancillary Facilities (Amended Application, June 2023)	19km of NPS 36 Pipeline and Ancillary Facilities (Initial Application, June 2022)
Item No.	**Cost Description**	**Project Costs ($)**	**Project Costs ($)**
1	Materials	57,000,000	56,600,000
2	Labour, External Permitting and Land, and Outside Services	199,300,000	124,100,000
3	Contingency	20,800,000	19,200,000
4	Interest During Construction	12,100,000	3,500,000
5	Total Direct Capital Cost	289,200,000	203,400,000
6	Indirect Overheads	68,800,000	43,200,000
7	Total Project Cost	358,000,000	246,600,000

b) Enbridge Gas attributes the variances to the following three causes: a) bid to estimate variance; b) unforeseen inflation; and c) scope refinement. Consistent with the proposed Project, Enbridge Gas has experienced inflationary pressures on all projects within the capital portfolio.

Please see the information below for details regarding the items in Table 1 with increased costs compared to the initial application.

Labour, External Permitting and Land, and Outside Services

The Project costs in the initial application were developed using 2021 Construction Contractor Request for Information ("RFI") responses. The amended application relies on Contract Request for Proposal ("RFP") responses for Q4 2022.

Increased cost estimates between the RFI and the RFP were driven primarily by inflationary pressures and, to a lesser extent, refinements in engineering design.

The Q4 2022 RFP amounts reflect inflationary increases in prime contractor costs including equipment rental rates, fuel prices, and labour rates. The prices for materials and labour had significantly increased since 2021, and these increases are believed to be driven by supply chain challenges that have arisen in recent years.

Other drivers for the cost estimate increase are related to scope refinements identified during the detailed design stage. As part of standard project development activities, further refinement was carried out on the Project design. The results of the refinements to engineering design included but are not limited to additional materials (e.g., valves, actuators, and cabling), additional trenchless crossings and added depth to open cuts, and increased inspection hours. This was offset in part by review of the design resulting in a streamlined design of the stations scope to realize cost reductions.

As discussed at the response to Exhibit I.SEC.1, the contract has not yet been executed. Enbridge Gas invited 7 proponents to bid and received 6 responses to the Q4 2022 RFP for prime contractor. The average proposal price from the top three (3) most competitive proponents was used for the current estimate.

Enbridge Gas continues to be proactive to reduce the impact of the higher cost estimate, and this includes a rigorous negotiation of contracts to select lower cost bids with the required technical expertise.

Interest During Construction

The primary drivers are increased interest rates and the increased capital cost of the Project.

Indirect Overheads

Indirect overheads are a function of the total capital cost and the overhead rate for the in-service year. The increase to indirect overheads is a function of the increase in direct capital spend and a revision to the rate applied due to the shift in timing of the Project (23.8% vs. 21.2%).

ENBRIDGE GAS INC.

Answer to Interrogatory from
School Energy Coalition (SEC)

INTERROGATORY

Reference:

[Cover Letter, June 16, 2023] With respect to the Leamington Interconnect, Enbridge states: “Following Enbridge Gas’s re-assessment of the Project in 2022 and 2023, the Company has elected to remove the Leamington Interconnect from the scope of the proposed Project and will reassess its need in the future should projected system shortfalls come to fruition and warrant its reconsideration.”

Question(s):

Please provide a copy of the following documents:

a. Any internal project business cases.

b. All material provided to Enbridge’s executive management team or Board of Directors to seek approval for the updated project.

c. All material provided to Enbridge Inc. regarding the updated project.

Response:

a) Please refer to the response at Exhibit I.SEC.4, part a) for information regarding the removal of the Leamington Interconnect from the Project scope. Please also see Attachment 1 to this response for Enbridge Gas’s assessment of the demand forecast compared to facility options, prior to the development of the amended leave to construct application.

b) and c)
Please see the response to Exhibit I.PP.16 including attachments (updated October 3, 2023) for Capital Allocation Committee, Investment Review Committee and Board of Director approval material.

Shortfall Analysis - Based on PREP Refresh Demands (as of April 21, 2023)

TJ/d

4/21/2023

TJ/d	W 21/22	W 22/23	W 23/24	W 24/25	W 25/26	W 26/27	W 27/28	W 28/29	W 29/30	W 30/31	W 31/32	W 32/33	W 33/34
Total Capacity - No Build	**713**	**737**	**737**	**737**	**737**	**737**	**737**	**737**	**737**	**737**	**737**	**737**	**737**
Total Demand Forecast	672	698	730	802	849	863	878	892	906	921	935	949	963
General Service Forecast	310	306	308	310	312	314	315	317	319	320	321	323	324
Contract Forecast	256	286	316	329	342	354	367	380	393	406	418	431	444
Power Generation	106	106	106	163	195	195	195	195	195	195	195	195	195
Shortfall	*41*	*38*	*6*	*(66)*	*(112)*	*(127)*	*(141)*	*(156)*	*(170)*	*(184)*	*(198)*	*(212)*	*(227)*
Total System Capacity	**713**	**737**	**737**	**904**	**904**	**904**	**904**	**904**	**904**	**904**	**904**	**904**	**904**
19 km NPS 36 + Dawn Yard Incremental Capacity	0	0	0	168	168	168	168	168	168	168	168	168	168
Shortfall	*41*	*38*	*6*	*102*	*55*	*41*	*26*	*12*	*(2)*	*(17)*	*(31)*	*(45)*	*(59)*

High-level Scope Summary

Loop Richardson for the total 19 km in 2024

Shortfall Analysis - Based on PREP Refresh Demands (as of April 21, 2023)

TJ/d

4/21/2023

TJ/d	W 21/22	W 22/23	W 23/24	W 24/25	W 25/26	W 26/27	W 27/28	W 28/29	W 29/30	W 30/31	W 31/32	W 32/33	W 33/34
Total Capacity - No Build	**713**	**737**	**737**	**737**	**737**	**737**	**737**	**737**	**737**	**737**	**737**	**737**	**737**
Total Demand Forecast	672	698	730	802	849	863	878	892	906	921	935	949	963
General Service Forecast	310	306	308	310	312	314	315	317	319	320	321	323	324
Contract Forecast	256	286	316	329	342	354	367	380	393	406	418	431	444
Power Generation	106	106	106	163	195	195	195	195	195	195	195	195	195
Shortfall	*41*	*38*	*6*	*(66)*	*(112)*	*(127)*	*(141)*	*(156)*	*(170)*	*(184)*	*(198)*	*(212)*	*(227)*
Total System Capacity	**713**	**737**	**737**	**766**	**766**	**766**	**766**	**766**	**766**	**766**	**766**	**766**	**766**
12 km NPS 16 Interconnect Only	0	0	0	30	30	30	30	30	30	30	30	30	30
Shortfall	*41*	*38*	*6*	*(36)*	*(82)*	*(97)*	*(111)*	*(126)*	*(140)*	*(154)*	*(168)*	*(183)*	*(197)*

High-level Scope Summary

No Loop of NPS 20 Panhandle Line

Interconnect only

Not enough pressure available at Comber Transmission with Interconnect to facilitate growth.

NPS 20 Panhandle Line Bottleneck constrains growth on downstream networks

ENBRIDGE GAS INC.

Answer to Interrogatory from
School Energy Coalition (SEC)

INTERROGATORY

Reference:

[Cover Letter, June 16, 2023] With respect to the Leamington Interconnect, Enbridge states: "Following Enbridge Gas's re-assessment of the Project in 2022 and 2023, the Company has elected to remove the Leamington Interconnect from the scope of the proposed Project and will reassess its need in the future should projected system shortfalls come to fruition and warrant its reconsideration."

Question(s):

a. Please provide a detailed explanation of why Enbridge chose to remove the Leamington Interconnect from the scope of the proposed project.

b. Please confirm that based on the Capital Update filed in EB-2022-0200, the Leamington Interconnect project is forecast to be completed in 2026 at a cost of $118.8M (see EB-2022-0200, 2.6-CCC-71, Attach 1, p.6 (2023-07-06).

c. Please reconcile part (b) with the statement that Enbridge will reassess its need in the future.

d. Please provide a revised DCF Analysis (E-1-5) that includes the cost of the Leamington Interconnect based on the costs forecast in the Capital Update of the EB-2022-0200 application. Please provide all supporting calculations and the DCF Analysis in Excel format.

Response:

a) Enbridge Gas's Alternatives Assessment Criteria for the Project includes a "timing" criterion whereby "the alternative must meet the growing firm demands on the Panhandle System for the next five years".[1] At the time of the filing of Enbridge Gas's initial application and evidence (i.e., June 2022) the Company projected that the Leamington Interconnect would be required to meet a system shortfall in Winter 2025/2026 (following construction of the Panhandle Loop) - within the 5-year

[1] Exhibit C, Tab 1, Schedule 1, p. 3.

timeframe mentioned above. As a result, the Leamington Interconnect was included within the initial application and evidence.

In 2023, following receipt of the new cost information, the Company re-assessed the capacity position of the Panhandle System based on actual 2022 attachments and their system locations, as well as updated 2023 customer demand. These updates are described at Exhibit A, Tab 4, Schedule 1. The combined effects of these updates indicated that a further system shortfall (following construction of the Panhandle Loop) is not expected to occur until Winter 2029/2030 – beyond of the 5-year timeframe mentioned above. As a result, Enbridge Gas elected to remove the Leamington Interconnect from the scope of the Project.

b) Confirmed.

c) Enbridge Gas's best available information at this time reflects a system capacity shortfall as early as November 1, 2029. Alternatives including the Leamington Interconnect and/or other potential solutions will be assessed in the future. As with all growth projects included in the AMP, Enbridge Gas will continue to reassess/update their need.

d) Enbridge Gas respectfully declines to provide the requested analysis, which is based on a Project scope (i.e., inclusion of the Leamington Interconnect) that the Company's is not seeking approval of. As per the response to part a) above, Enbridge Gas has removed the Leamington Interconnect from the Project's scope and will reassess its need in the future.

ENBRIDGE GAS INC.

Answer to Interrogatory from
School Energy Coalition (SEC)

INTERROGATORY

Reference:

[A-4-1, p.5-6] Enbridge states: “Following the OEB’s remarks in Procedural Order No. 4 regarding CIAC, Enbridge Gas account managers conducted outreach to customers who indicated their intention to submit an EOI bid. Customers were asked about the impact a requirement for CIAC would have on their demands for new/incremental service.”

Question(s):

a. Please provide a copy of all correspondence and any notes of discussions between Enbridge and customers regarding the potential requirements for a CIAC payment.

b. Please provide a copy of all instructions and/or guidance provided to Enbridge Account managers regarding the OEB’s comments in Procedural Order No. 4.

Response:

a) Please see the response at Exhibit.STAFF.25, part a).

b) Please see Attachment 1 to this response for a Q&A reference sheet provided to Enbridge Gas account managers regarding the 2023 EOI/ROS process which included information regarding CIAC.

   Please see Attachment 2 to this response for an e-mail (dated February 22, 2023) sent to Enbridge Gas account managers regarding the 2023 EOI/ROS process which included information regarding CIAC.

Panhandle Regional Expansion Project

Q&A for EOI / Binding Reverse Open Season 2.0

Q: Why is Enbridge Gas again going out with another Expression of Interest and Reverse Open Season for the Panhandle Regional Expansion Project?

Enbridge Gas filed a leave-to-construct application with the Ontario Energy Board in June 2022 for two new proposed transmission facilities and ancillary facilities (19 km of 36-inch looping "Panhandle Loop" and 12 km of new 16-inch pipe connecting the connect the existing Leamington North Lines to both the Kingsville East Line and the Leamington North Reinforcement Line "Leamington Interconnect"). Through the course of the regulatory process, new cost information became available which resulted in Enbridge requesting the LTC application be place in abeyance (on hold).

From Enbridge's letter to the OEB dated December 5, 2022 (request to place project in abeyance):

Very recently, Enbridge Gas received new cost information through a competitive procurement process that it has been undertaking in parallel with the application, in anticipation of the future construction of the proposed Project. Based on that new information, Enbridge Gas has identified potentially material increases to certain components of the estimated Project cost. Enbridge Gas is in the process of assessing this new cost information and its implications for the application and the evidence that is currently before the OEB.

From Enbridge's letter to the OEB dated February 1, 2023 (request for extended abeyance until no later than August 2023):

Following the receipt of the new cost information, Enbridge Gas re-assessed the capacity position of the Panhandle System based on actual 2022 attachments and their system locations, as well as updated 2023 customer demand. As a result, the Company now anticipates that incremental demand for Winter 2023/2024 can be accommodated and that the Project's in-service date can be deferred one year from November 1, 2023, to November 1, 2024.

The Company continues to assess the Project cost information, the capacity position of the Panhandle System, and future customer demand. Enbridge Gas expects to complete and file evidence amendments incorporating the Company's assessment of these aspects as soon as possible and no later than August 2023 and is requesting that the OEB continue to hold the application in abeyance until that time.

Given the time between the request for continued abeyance and when we expect to file the updated LTC application, Enbridge Gas is conducting this second EOI and Binding Reverse Open season to reconfirm market demands and timing. We are also trying to address some of the issues raised by intervenors and OEB staff during the regulatory process (energy transition & conservation, education of

alternatives to firm service i.e. reduced IT rates, DSM opportunities, and the potential for contributions-in-aid-of-construction or "CIAC" for transmission assets).

Q: Do I have to submit a bid in this EOI if I previously submitted a bid in the 2021 EOI?

Customers who participated in Enbridge Gas' 2021 Non-Binding Expression of Interest should submit a new bid form as part of this Expression of Interest for the full amount of additional capacity required in 2024 and beyond. Unless Enbridge Gas receives a new bid form, the company will assume that no new capacity is required.

Customers who have already executed a distribution contract with Enbridge Gas do not have to resubmit a an EOI bid form unless they have new or incremental requirements beyond what has already been contracted for.

Q: Are contributions-in-aid-of-construction (CIACs) required by Enbridge Gas for customers taking new/incremental firm service from the proposed transmission facilities?

Enbridge Gas' position is that customers should not be required to pay a CIAC to improve the economics of the proposed transmission project. Customers may be required to pay a CIAC in addition to executing a long-term distribution contract for any customer-specific distribution facilities (station, service, and/or localized distribution reinforcement required with/without a HAF being utilized).

This was the response provided by Enbridge for undertaking JT1.3 on the issue of CIACs for transmission assets.

Undertaking response for JT1.3

Enbridge to explain why it did not make a proposal to enable seeking of a contribution for the capacity sought.

Response:

The proposed Project is a transmission project (please also see the response at Exhibit JT1.2 for Enbridge Gas's definitions of transmission and distribution pipelines) that will increase capacity on the Panhandle System to meet forecast demand within a large area of benefit.[1] While the demand underpinning the need for the proposed Project is informed by customer demand throughout the area of benefit, there will be no customers directly connecting to the proposed Project (Panhandle Loop and Leamington Interconnect).

[1] Exhibit B, Tab 1, Schedule 1, p. 5, Figure 1

Distribution projects, in comparison, generally provide customer premises with direct access to natural gas. In the case of distribution projects, it can be appropriate to seek a financial contribution from customers whose premises will be directly benefiting from the project. These financial contributions can minimize cross-subsidisation by customers who will not benefit from the distribution facilities.

It is not appropriate to seek a financial contribution from specific customers for the proposed transmission Project because, as a transmission system, the Panhandle System transports natural gas for the benefit of all customers within the Panhandle Market – rather than individual or specific customers. Once in service, the proposed Project will serve all customers, whether or not they participated in the expression of interest. The proposed Project addresses system bottlenecks, which once relieved, will improve the reliability of service for existing customers, and will allow for growth from existing and new customers.

It should be noted that the Company's approach is consistent with previous Enbridge Gas applications to the OEB seeking leave to construct, including the Kingsville Transmission Reinforcement Project ("KTRP") (EB-2018-0013). Within the OEB's Decision in the KTRP leave to construct proceeding, the OEB found that the Company "appropriately followed the OEB's E.B.O. 134 test for transmission projects" and confirmed that "currently there is no mechanism to have these parties make a contribution to the costs."[2]

The Company's approach is also in alignment with the OEB's Decision (less than two years ago) on Enbridge Gas's Application for Approval of a System Expansion Surcharge ("SES"), a Temporary Connection Surcharge ("TCS"), and an Hourly Allocation Factor ("HAF"), specifically:

> *"The OEB approves the use of HAF for projects that are primarily distribution and if there is a minor component of transmission then the OEB would still accept the use of HAF. For exclusively transmission projects, the OEB has not agreed to the application of HAF."*[3]

Q: Why is the EOI non-binding and the Reverse Open Season binding?

The purpose of the EOI is to gather information on customer growth plans for the next 5-10 years and will be used as an input to the demand forecast as well as the validation of the proposed transmission facilities and/or potential alternatives. In order to capture total market potential, the EOI is non-binding, meaning customers are not committing to the capacity at this time.

[2] EB-2018-0013, OEB Decision and Order (September 20, 2018), pp. 5-6
[3] EB-2020-0094, OEB Decision and Order (November 5, 2020), p. 20

Customers expressing interest in new/incremental firm capacity, and who wish to secure that capacity as part of the project, will need to execute a distribution contract or Letter of Indemnity to formally commit to the capacity they are requesting. Capacity will be available on a first-come first-serve basis.

The reverse open season is binding, meaning if a customer elects to turnback firm or interruptible capacity, or convert existing firm service to interruptible service, and if Enbridge accepts the bid with or without conditions attached, the customer will be required to proceed with the turnback request (a contract amendment would be processed to reflect the reduced contract parameters). If a customer exceeds their revised contract parameters after turnback, or wishes to increase contract parameters in the future, the request will be subject to available system capacity at the time the request is received. There is no guarantee that the capacity will be available for them in the future without new facilities and/or alternatives.

Any capacity turned back by customers through the Binding Reverse Open Season will be used to minimize any facilities and/or alternatives deemed to be required to serve incremental demand. Enbridge Gas reserves the right to reject any and all bids received.

Q: Which customers are being included in the EOI / Reverse Open Season?

The EOI & ROS is being sent to all distribution contract customers in the area of benefit for the proposed project (western Chatham-Kent and all of Windsor/Essex County). The email will be sent to all of the signing and alternate signing authorities attached to each distribution contract in the AOB. Account managers are encouraged to forward the email to any other relevant contacts for each account, as well as to any customers not currently in the AOB, but who may have future growth plans inside the AOB). Marketers in the LUG South rate zone representing customers in the AOB will also be included in the distribution list.

Q: What is the new proposed in-service date for the proposed project?

The revised in-service date for the proposed project is November 2024. Customers can request capacity earlier than November 2024 which may be available on a best-efforts basis or through the use of an interim IT bridging solution (for those requesting new/incremental firm service).

From: Matt Ciupka <Matt.Ciupka@enbridge.com>
Sent: Wednesday, February 22, 2023 4:33 PM
To: In-Franchise Sales – Key Accounts <In-FranchiseSales_KeyAccounts@enbridge.com>; In-Franchise Sales - LCI Accounts <In-FranchiseSales_LCIAccounts@enbridge.com>; In-Franchise Sales – Strategic Accounts <In-FranchiseSales_StrategicAccounts@enbridge.com>
Cc: Ian Macpherson <Ian.Macpherson@enbridge.com>; Paolo Mastronardi <Paolo.Mastronardi@enbridge.com>; Todd Marentette <Todd.Marentette@enbridge.com>; Mark Prociw <Mark.Prociw@enbridge.com>
Subject: INFORM: PREP Expression of Interest and Binding Reverse Open Season - 2023

Good Afternoon,

Tomorrow we will be launching the Expression of Interest (EOI) and Binding Reverse Open Season (ROS) for the Panhandle market area!

Once Web Publishing confirms the websites updates are live, a notification email will be sent from the ***Enbridge Gas Large Volume Customer Communications*** mailbox to all existing contract rate customers in the defined Area of Benefit. This should occur between 10am and noon tomorrow.

- The email will be sent to the Signing Authority and Signing Authority Alternates currently attached to each SA – please feel free to forward the email to any of your contacts if the Signing or Alt Signing Authority isn't your main contact. You are also encouraged to forward the email to any customers that are not in the area of benefit but considering the area for growth, or existing general service customers who may be expanding and would qualify for contract rate service.

- A copy of the EOI/ROS package, along with a listing of the customers that will receive the email, and a Q&A document have been uploaded to the new **DIFS PREP Team** channel in Teams.

- A tracking file to document the outreach progress and record information gained from customer discussions is also located on the **DIFS PREP Team** channel. **Please update the tracking file every time you've had a discussion with a customer**. You'll note that there is a column to record customer responses to the CIAC for transmission assets question. Please refer to the Q&A document for background on the question and EGI's current position on it –

and don't hesitate to reach out if you want more background or information on why we are asking this when speaking to customers.

- Weekly touchpoints have been set up for those who have accounts in the area to discuss outreach progress, customer feedback received, general observations and Q&A. Please feel free to add questions to the Q&A document and we will add on to it as new questions come up. If you haven't been included on the invite list but would like to attend the touchpoints please let me know and I'll add you.

- A copy of the EOI & ROS documents can also be found on the **Indmarketing** drive under **\Contract Sales Team\02 – PREP EOI ROS 2023**. We want to leverage the DIFS PREP Team channel as much as we can.

- The EOI BROS will remain open for 30 business days and will be **closing on Thursday April 6th, 2023 at 12 pm ET**. EOI and/or ROS bid forms must be submitted by customers to the Economic.Development@Enbridge.com on or before that date. If you receive any bid forms directly from customers, please forward them to the Economic.Development@Enbridge.com mailbox for control and tracking purposes.

Please do not hesitate to reach out at any time if you have questions, concerns, comments or are seeking advice – remember, there are no dumb questions!

I'm looking forward to the journey ahead and wish you all the best in your customer outreach efforts.

Thanks,
Matt

Matt Ciupka, **MBA (he/him)**
Specialist, Economic Development
Strategic & Power Markets

ENBRIDGE GAS
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P.O. Box 2001, 50 Keil Drive N., Chatham ON N7M 5M1

enbridgegas.com
Safety. Integrity. Respect. Inclusion.

ENBRIDGE GAS INC.

Answer to Interrogatory from
School Energy Coalition (SEC)

INTERROGATORY

Reference:

[E-1]

Question(s):

Please provide a copy in Excel, with all formulas intact, of Schedules 4-7.

Response:

Please see Attachment 1 to this response for the Excel file for Exhibit E, Tab 1, Schedule 4.

Please see Attachment 2 to this response for the Excel file for Exhibit E, Tab 1, Schedule 5.

Please see Attachment 3 to this response for the Excel file for Exhibit E, Tab 1, Schedule 6. Please also see the response at Exhibit I.ED.25.

Please see Attachment 4 to this response for the Excel file for Exhibit E, Tab 1, Schedule 7.

ENBRIDGE GAS INC.

Answer to Interrogatory from
Ontario Energy Board Staff (STAFF)

INTERROGATORY

Reference:

Updated Application, Exhibit B, Tab 1, Schedule 1, page 7, paragraph 26, page 10, paragraph 33; Attachment 8: 2023 Expression of Interest Non-Binding Bid Form, Attachment 9: 2023 Distribution Service Binding Reverse Open Season Form

Preamble:

After the proceeding was placed in abeyance on December 5, 2022, Enbridge Gas updated its forecast of the demand for incremental capacity to support the need for the Project. To re-confirm the customer interest in demand for incremental capacity on the Panhandle System Enbridge Gas launched, on February 23, 2023, the second non-binding Expression of Interest (EOI 2023) and a Binding Reverse Open Season (ROS). A total of 42 EOI 2023 bids were received from 39 entities as of closing the EOI process on April 6, 2023. The prospective customers expressed interest for capacity of 197 TJ/d from 2024 to 2033. Of the 42 bids, 38 were from the greenhouse sector, 2 from the electricity generation (power) sector and 2 from commercial sector.

According to the outcomes of the EOI 2023, 94% of the total incremental potential project demand is by contract rate customers. Enbridge Gas stated that, as of May 2023, 34% of the contract rate customer demand is “underpinned by firm distribution contract”.

Enbridge Gas plans to execute distribution service contracts with customers for the service in 2024 and 2025 and secure the remaining contracts from contract rate customers in the years to follow.

Question(s):

a) Please explain the statement that 34% of the contract customer demand is underpinned by firm distribution contracts. How many firm distribution contracts have been executed to date for incremental firm service in 2024 and 2025? Please provide a total contracted capacity demand for 2024 to 2025 by volume, by customer or by sector.

b) What is Enbridge Gas’s plan to secure the remaining firm distribution contracts for the incremental capacity demand forecast for the years 2026 to 2033?

Response

a) 57 TJ/d of incremental customer demand is currently underpinned by a firm distribution contract, accounting for 34% of the total incremental capacity created by the Project (i.e., 168 TJ/d).

In addition, Enbridge Gas is actively engaged in contract negotiations with customers who require an additional 10 TJ/d of incremental capacity starting in 2024 and 64 TJ/d of incremental capacity starting in 2025.

The total amount of incremental customer demand that is currently underpinned by a firm distribution contract or is being negotiated for a firm distribution contract by the end of 2025 (i.e., the first 2 years of the Project) is 131 TJ/d, accounting for 78% of the total incremental capacity created by the Project (i.e., 168 TJ/d).

Please see Table 1 below for a breakdown of incremental customer demand requirements (underpinned by a firm distribution contract and in negotiation) for 2024 and 2025 by customer and sector.

Table 1: 2024 and 2025 Incremental Customer Demand Requirements (Underpinned by Firm Distribution Contract and In Negotiation) by Customer and Sector

Status	Customer	Sector	TJ/Day		
			2024	2025	Total
Underpinned by Firm Distribution Contract					
	1	Power[1]	57.4	0	57.4
Total Underpinned by Firm Distribution Contract			**57.4**	**0**	**57.4**
In Negotiation					
	2	Power	0	6.3	6.3
	3	Power	0	25.1	25.1
	4	Greenhouse	0.5	3.1	3.6
	5	Greenhouse	2.4	0	2.4
	6	Greenhouse	0	2.4	2.4
	7	Greenhouse	2.2	0	2.2
	8	Greenhouse	0	2.1	2.1
	9	Greenhouse	1.6	0	1.6
	10	Greenhouse	0	1.4	1.4
	11	Greenhouse	1.3	1.6	2.9

[1] The contract term for the executed contract is July 16, 2024 to July 15, 2029.

	12	Greenhouse	1.3	1.3	2.7
	13	Greenhouse	0	1	1
	14	Greenhouse	0	0.9	0.9
	15	Greenhouse	0.4	0	0.4
	16	Greenhouse	0.2	0	0.2
	17	Greenhouse	0	4.5	4.5
	18	Greenhouse	0	3.1	3.1
	19	Greenhouse	0	2.2	2.2
	20	Greenhouse	0	1.6	1.6
	21	Greenhouse	0	1.3	1.3
	22	Food and Beverage	0	0.1	0.1
	23	Greenhouse	0	0.9	0.9
	24	Greenhouse	0	1.1	1.1
	25	Greenhouse	0	1.7	1.7
	26	Greenhouse	0	0.8	0.8
	27	Greenhouse	0	1.3	1.3
Total In Negotiation			**9.9**	**63.8**	**73.8**
Total Underpinned by Firm Distribution Contract and In Negotiation			**67.3**	**63.8**	**131.2**

b) Enbridge Gas is primarily engaged in discussions and negotiations with contract customers requiring capacity in the near term (i.e., 2024 - 2025) to execute firm distribution contracts. For bids received requesting service beyond 2025, Enbridge Gas will be engaging with those customers over the next 12-24 months, or otherwise as appropriate, to initiate activities which include the assessment of customer specific distribution assets, establishment of credit, and ultimately contract execution.

It should be noted that Enbridge Gas is also engaged in active discussions and negotiations with customers who did not submit EOI bids but required additional capacity, including companies seeking to locate in Windsor, Essex County, and Chatham-Kent to support new technologies such as electric vehicle battery manufacturing related industries.

ENBRIDGE GAS INC.

Answer to Interrogatory from
Ontario Energy Board Staff (STAFF)

INTERROGATORY

Reference:

Procedural Order No. 4, December 14, 2022, page 3; Updated Application Exhibit E, Tab 1, Schedule 1, B. Project Economics, paragraph 4, page 3

Preamble:
In Procedural Order No. 4, which placed the proceeding in abeyance as of December 5, 2022, the OEB confirmed that the issue of the applicability of E.B.O. 134 and E.B.O. 188 is within the scope of the proceeding. The OEB stated:

"...the OEB is of the view that the economics of the project, the applicability of EBO 134 and EBO 188, and the extent to which contributions in aid of construction should be required are issues that are in scope for this proceeding. Enbridge may wish to consider whether to provide additional evidence on those issues as part of its proposed update to its application. Enbridge may also wish to consider whether it should be communicating with potentially affected customers regarding the position of some parties that contributions in aid of construction should be required."

In the updated application filed on June 16, 2023, Enbridge Gas addressed the issue of applicability of the E.B.O. 134 and E.B.O. 188 by stating that E.B.O. 134 is the appropriate economic test as the Project is entirely a transmission project.

As part of the EOI 2023, Enbridge Gas conducted outreach to customers who indicated their intention to submit an EOI bid to obtain customer's position on paying CIAC. Enbridge Gas asked these customers how a requirement for a CIAC may impact their demands for new/incremental service.

Enbridge Gas stated that the customers feedback was as follows:

• Customers submitting EOI bids for new/incremental service were generally doing so under the assumption that the OEB would apply the established regulatory framework for transmission system expansion projects, which does not require CIAC, consistent with similar projects constructed in the past. Customers generally indicated opposition to being required to provide CIAC to support transmission system expansion in this instance.

•No customer indicated that they would be willing to provide CIAC for a transmission system expansion project without understanding the magnitude of the CIAC and the unique justification for its selective application in this instance.

Question(s):

a) Please provide details on Enbridge Gas's customer outreach activities regarding the requirement for a CIAC including dates, method of communication, and information provided to customers.

b) Please advise whether any customers will be directly connected to the Project.

c) Please advise whether Enbridge Gas agrees that the Project almost entirely benefits identifiable contract customers.

Response:

a) As part of the 2023 EOI, Enbridge Gas conducted outreach to customers who indicated their intention to submit an EOI bid to obtain their position on paying a CIAC. Enbridge Gas asked these customers how a requirement for a CIAC may impact their demands for new/incremental service. This outreach was a result of the OEB's Procedural Order No. 4 dated December 14, 2022, which stated:[1]

> "Enbridge may also wish to consider whether it should be communicating with potentially affected customers regarding the position of some parties that contributions in aid of construction should be required."

Outreach occurred between February 15, 2023 and April 6, 2023.

There was no information sent to customers regarding the matter, and Enbridge Gas account managers were not provided with a script to deliver to customers. Rather, Enbridge Gas account managers sought customer feedback via verbal communication and recorded any feedback from customers. The customer feedback collected by Enbridge Gas account managers can be found at Attachment 1 to this response. Please note that Enbridge Gas is requesting confidential treatment of the names of customers in Attachment 1. A summary of the feedback back can be found at Exhibit A, Tab 4, Schedule 1, Paragraph 21.

Please also see the response at Exhibit I.SEC.5, part b) for instructions/guidance provided to Enbridge Gas account managers regarding the matter.

[1] OEB Procedural Order No. 4 (December 14, 2022), p. 3.

b) No customers will be directly connected to the Project.[2]

c) No, Enbridge Gas does not agree that the transmission Project almost entirely benefits identifiable contract customers. The very nature of a transmission pipeline is that it provides natural gas to a broad geographic region comprised of multiple distribution systems of which a large number of both contract and general service customers are served. Whereas distribution pipelines benefit a very specific customer or set of customers, a transmission pipeline provides benefits to a broad region. The proposed Project will enable the transportation of natural gas for the benefit of all natural gas customers within the Panhandle Market (including the Municipalities of Chatham-Kent, Lakeshore, Tecumseh, Windsor, LaSalle, Amherstburg, Essex, Kingsville and Leamington, St. Clair, and Dawn-Euphemia).

   The proposed Project partially alleviates the largest Panhandle System bottleneck (see Exhibit B, Tab 2, Schedule 1, pp. 13 - 14). Partial alleviation of the bottleneck improves the reliability of natural gas service for existing customers and will allow for growth among both existing and new customers on the Panhandle System. All customers benefit from alleviation of Panhandle System bottlenecks.

   Although the demand forecast is based on contract customers who responded to the EOI, these are not the only customers that will benefit from the capacity created. Customers that did not respond to the EOI will have the ability to connect to the system using any capacity that is available at the time of their request. The timing of when commercial, industrial, and power generation customers are in a position to express their needs for natural gas service do not always align with the timing of Enbridge Gas's EOI process. As a result, the EOI results are only a point-in-time snapshot of customer demand. As has been demonstrated over the last decade, both expected and unexpected growth in the Panhandle Market area has continued to materialize as new customers attach to the natural gas system. As these new customers request natural gas service, it is important that Enbridge Gas has the ability to accommodate them in a timely and economic manner.

   Transmission system capacity is available on a "first come, first served" basis. Once in service, the proposed Project will serve all existing and future customers whether or not they participated in the EOI.

   The capacity created by the proposed Project will also benefit new general service customers. The timing for the attachment of general service customers is dependent upon the planning and development of new residential and commercial buildings as undertaken by cities, municipalities, and developers. Since the Project will provide

[2] For clarity, the Project consists of the Panhandle Loop (i.e., 19 km of NPS 36 natural gas pipeline) and ancillary measurement, pressure regulation, and station facilities within the Township of Dawn Euphemia and in the Municipality of Chatham-Kent.

incremental capacity across a broad geographic region, it will benefit all new general service customers in that area by allowing Enbridge Gas to attach these new customers as they emerge.

Existing contract and general service customers will also benefit from the capacity created by the Project. These customers, which are already attached to the system, will have the ability to grow their natural gas use (and in some cases their businesses) by leveraging the capacity that is available after the Project is placed into service.

From an operational standpoint, the proposed Project also provides enhanced system reliability and redundancy to existing customers during non-peak times of the year. Once the proposed pipeline facilities are placed into service, they become a functional loop of the overall Panhandle System. Enbridge Gas cannot differentiate natural gas molecules as they flow through the transmission system, and as a result both new and existing customers will be served by both the new and existing transmission facilities. The proposed Project increases operational flexibility in the event of maintenance, in-line inspections or unplanned outage on the Panhandle System, including interruption of Ojibway supply.

From a broader economic perspective, as outlined at Exhibit E, Tab 1, Schedule 1, Paragraph 19, the transmission Project will also provide direct and indirect economic benefits to Ontario estimated at approximately $257 million. This figure does not include the similar direct and indirect economic benefits to Ontario when both existing and new natural gas customers invest and grow their operations. Within EOI bid responses, customers indicated that total direct capital investments into their business operations in Southern Ontario related to their incremental natural gas needs would exceed $4.5 billion.

Enbridge Gas is aware of an increased demand for natural gas in the Panhandle Market via local economic development organizations and recent publications:

- March 2023: “Drawings, details of new hospital revealed during virtual town hall” – https://windsorstar.com/news/local-news/drawings-details-of-new-hospital-revealed-during-virtual-town-hall
- April 2023: “Windsor-Essex being eyed for billions in new industrial investment” – https://windsorstar.com/news/Windsor-essex-being-eyed-for-billions-in-new-industrial-investment
- June 2023: “New Interchange Connecting Lauzon Parkway To 401 'Highest Priority' Says Ford” – https://www.iheartradio.ca/am800/news/new-interchange-connecting-lauzon-parkway-to-401-highest-priority-says-ford-1.19736147

- July 2023: “Windsor lands another big EV auto supply chain company” – https://windsorstar.com/news/Windsor-lands-another-big-ev-auto-supply-chain-company
- August 2023: “Windsor inching closer to landing another major foreign investment” – https://windsorstar.com/news/Windsor-inching-closer-to-landing-another-major-foreign-investment

Please also see a recent Globe and Mail article which includes commentary from the greenhouse industry:

- August 2023: “Southern Ontario’s greenhouse operators warn lack of infrastructure is slowing growth in booming sector” – https://www.theglobeandmail.com/business/article-windsor-greenhouse-growers-infrastructure/

The IESO has similarly recognized the significant and exceptional demand the Panhandle Market area will experience as part of their Southwest Ontario Bulk Planning initiatives[3].

> *“Electricity demand in Southwest Ontario is growing at a rapid pace. This growth is primarily driven by economic development in the agriculture and manufacturing sectors. The Windsor-Essex and Chatham-Kent areas are the primary drivers of the agriculture growth, which is projected to reach a demand of 2,300 MW by 2035 - the equivalent of adding a city the size of Ottawa to the electricity grid.”*

The IESO has forecasted that Ontario will see a capacity need emerging in 2025 and growing through the latter part of the decade. Peak electricity demand in the Windsor-Essex and Chatham areas is forecast to grow from roughly 500 megawatts in 2022 to about 2,100 megawatts in 2035, equivalent to adding cities the size of Ottawa and London to the grid. The IESO was directed by the Minister of Energy to procure certain natural gas generation to respond to this demand.

Enbridge Gas understands that replacing the generation capacity that the IESO has been directed by the Minister of Energy to procure will be significantly more expensive to meet the demand and reliability needs of the Panhandle region. Furthermore, it is not clear at this time what other generation technology has the ability to be deployed in the timeframe and scale required to respond to system needs. More specifically:[4]

[3] https://www.ieso.ca/en/Get-Involved/Regional-Planning/Southwest-Ontario/Southwest-Ontario-Bulk-Planning-Initiatives
[4] https://www.ontario.ca/files/2023-07/energy-powering-ontarios-growth-report-en-2023-07-07.pdf, p. 49.

“Ontario’s natural gas generators can be turned on and ramped up quickly to ensure the province does not need to be reliant on emergency actions such as conservation appeals and rotating blackouts to stabilize the grid, according to the IESO.

While during most hours throughout the year Ontario can meet its electricity generation needs with nuclear, hydroelectric, bioenergy, wind and solar power, natural gas generation also acts as the province’s insurance policy that can be turned on if the wind is not blowing or sun is not shining, or another generator is offline for repairs. There is currently no like-for-like replacement for natural gas and the IESO has concluded it is needed to maintain system reliability until nuclear refurbishments are complete and new non-emitting technologies such as storage mature.”

Customer	Comments Heard Regarding Customer Specific CIAC for Transmission Assets
[redacted]	Not in favor of making contribution
[redacted]	Not in favor of making contribution
[redacted]	Not in favor of making contribution
[redacted]	No, everything costs too much. Fertalizer up 32% in Jan/Feb, labour up, HR costs up.
[redacted]	Not in favor of making contribution
[redacted]	Not in favor of making contribution
[redacted]	Not in favor of making contribution
[redacted]	Not in favor of making contribution
[redacted]	Not in favor of making contribution
[redacted]	Not in favor of making contribution
[redacted]	Need to minimize all business costs
[redacted]	No, don't want to pay as much as they do already
[redacted]	No comment provided
[redacted]	Not in favor of making contribution
[redacted]	No comment provided
[redacted]	Not in favor of making contribution
[redacted]	Not in favor of making contribution
[redacted]	Customer does not want to see any change to current process for CIAC for Distribution
[redacted]	No comment provided
[redacted]	Customer uninterested in paying direct costs
[redacted]	Customer uninterested in paying direct costs
[redacted]	Not in favor of making contribution
[redacted]	No comment provided
[redacted]	No comment provided
[redacted]	No comment provided
[redacted]	No comment provided
[redacted]	Customer uninterested in paying direct costs
[redacted]	Customer uninterested in paying direct costs
[redacted]	Not in favor of making contribution
[redacted]	Not in favor of making contribution
[redacted]	Not in favor of making contribution
[redacted]	Customer uninterested in paying direct costs
[redacted]	Not in favor of making contribution
[redacted]	Not in favor of making contribution
[redacted]	Not in favor of making contribution
[redacted]	Customer does not want to see any change to current process for CIAC for Distribution
[redacted]	No comment provided
[redacted]	No comment provided
[redacted]	Not interested in paying any direct costs
[redacted]	Not interested in paying any direct costs

ENBRIDGE GAS INC.

Answer to Interrogatory from
Ontario Energy Board Staff (STAFF)

INTERROGATORY

Reference:

Updated Application, Exhibit B, Tab 1, Schedule 1, Attachment 1, Panhandle Regional Expansion Projects-Expression of Interest and Capacity Request Form, February 17, 2021, pages 1-2; Exhibit B, Tab 1, Schedule 1, Attachment 8, Panhandle Regional Expansion Project -Expression of Interest and Reverse Open Season, February 23, 2023, pages 1-7; OEB Decision and Order, December 5, 2020, EB-2020-0094, pages 13-15

Preamble:

The OEB approved, on December 5, 2020, Enbridge Gas's Application for approval of a System Expansion Surcharge, a Temporary Connection Surcharge and an Hourly Allocation Factor. In that proceeding Enbridge Gas stated that it intended to use the Hourly Allocation Factor (HAF) process on development projects that may involve a mix of distribution and transmission facilities.

The OEB in its Decision found that the "…use of the HAF results in allocation of the capital costs of a project in a fair and equitable manner as the costs would be allocated over time to eligible customers seeking access to the incremental capacity generated by the project".[1]

Enbridge Gas's Expression of Interest and Capacity Request Form, February 17, 2021 informed the prospective contract customers that the HAF process would be used to charge the prospective contract customers for additional distribution facilities that may be required to serve demands provided by the transmission facilities and that the application of the HAF methodology would be subject to approval of the OEB. There is no mention of the HAF in the EOI 2023 form filed in the updated evidence.

[1] EB-2020-0095 Decision and Order, December 5, 2020, page 16

Question(s):

a) In addition to the Enbridge Gas's HAF process statement in the EOI 2021 form, please discuss Enbridge Gas's view on asking the contract customers that benefit from the Project to contribute to the capital cost of the transmission facilities applying the HAF process.

b) Please advise whether there was any further communication in regard to the HAF with prospective customers following the closing of the EOI process in 2023? If not, please explain why not. If yes, please provide a summary of customers' comments with respect to the application of the HAF.

Response:

a) The statement regarding the Hourly Allocation Factor ("HAF") was included in the 2021 EOI form because Enbridge Gas had not yet determined what facilities were required (i.e., distribution facilities or transmission facilities), and customer demands and their locations were unknown when the EOI was issued. Depending on the results of the 2021 EOI process, transmission and/or distribution facilities may have been required to meet customer demands. The statement within the 2021 EOI regarding the HAF was in relation to potential distribution facilities, not potential transmission facilities.[2]

   The 2023 EOI form did not include a statement regarding the HAF because the 2021 EOI process provided clarity that only transmission facilities were required for the Project.

   Enbridge Gas does not believe it is appropriate to apply the HAF to large volume customers as the Project consists exclusively of transmission facilities and does not include any distribution facilities. The OEB's Decision, which approved the conditions for the use for the HAF, was issued within the context of E.B.O. 188, which relates solely to the economic evaluation of distribution system expansions. The OEB reiterated the applicability of the HAF within its November 5, 2020 Decision regarding EB-2020-0094 (p. 20, emphasis added):

> *The OEB approves the use of HAF for projects that are primarily distribution and if there is a minor component of transmission then the OEB would still accept the use of HAF. For exclusively transmission projects, the OEB has not agreed to the application of HAF.*

[2] For clarity, the statement within the 2021 EOI form regarding the HAF was as follows: "The Hourly Allocation Factor process recently approved by the OEB will be used for any **additional distribution facilities that may be required** related to the demands served by the transmission facilities [emphasis added]." (Exhibit B, Tab 1, Schedule 1, Attachment 1, p. 1).

The HAF works properly for a distribution project since the capacity created by the distribution facilities can be localized to a very specific area where the hydraulic benefits of the project are spread evenly. Due to this localized nature of distribution project, Enbridge Gas can calculate a HAF that applies equally anywhere within that distribution project area of benefit. When a customer reserves capacity within that project's area of benefit, the specific location of that customer does not impact how much of the project capacity is used. In other words, two customers attaching in two different areas of that distribution project area of benefit will have the same impact on the project facilities. This allows Enbridge Gas to calculate a HAF that can be appropriately administered and results in a HAF that is applied equitably amongst customers over time.

Conversely, the use of the HAF is not appropriate for transmission projects due to the broad geographic area impacted by the facilities. The benefits of the transmission project are not spread evenly across that region, which prevents Enbridge Gas from calculating a HAF that is applicable across the entire area of benefit. A customer's location within that geographic area will have a major impact on how much of project capacity is needed to serve that customer, and therefore customers will not benefit equally from the transmission facilities. In other words, two customers attaching in two different areas of a transmission project area of benefit will not have the same impact on the project facilities. If these customers were to pay a HAF, they would not be contributing equally to the project costs. A transmission project serving multiple classes of customers that have varying impacts to project capacity over a multi-year attachment horizon makes the calculation and administration of the HAF complex and inequitable. This leads to significant risks related to the determination of an appropriate allocation between large and small volume customers in Southwestern Ontario.

b) No communication occurred during or after the close of the 2023 EOI regarding the HAF. The Project consists exclusively of a transmission facility (and no distribution facilities) and as such the HAF and/or CIAC are not appropriate. Please see the response to part a) above and Exhibit I.STAFF.25, part c).

ENBRIDGE GAS INC.

Answer to Interrogatory from
Ontario Energy Board Staff (STAFF)

INTERROGATORY

Reference:

Updated Application, Exhibit D, Tab 1, Schedule 1, page 11, paragraph 19
Exhibit I.STAFF.16, Attachment 1

Preamble:

Enbridge Gas has received a letter from the Technical Standards and Safety Authority (TSSA), dated July 26, 2022, indicating that they have completed their review of the design for the proposed facilities and have no concerns.

Enbridge Gas filed the TSSA's letter at Exhibit I.STAFF.16, Attachment 1.

Question(s):

a) Please advise whether Enbridge Gas informed the TSSA of the updated Project.

b) Please advise whether the TSSA confirmed that its review letter dated July 26, 2022 does not need to be updated. If not, please provide an update on the TSSA review letter.

Response:

a) and b)
Enbridge Gas did not engage the TSSA regarding the amended application filed June 16, 2023, as the scope and design of the Panhandle Loop did not change following the TSSA's initial review. As such, the TSSA's review letter dated July 26, 2022 at Exhibit I.STAFF.16, Attachment 1 remains appropriate.

ENBRIDGE GAS INC.

Answer to Interrogatory from
Ontario Energy Board Staff (STAFF)

INTERROGATORY

Reference:

Updated Application Exhibit F, Tab 1, Schedule 1, page 2, paragraph 5 and Attachment 2, Updated

Preamble:

In May 2023, Enbridge Gas sent a letter to Ontario Pipeline Coordinating Committee (OPCC) members, affected municipalities, conservation authorities, landowners, Indigenous communities, and other local agencies advising of the updated Project scope.

Enbridge Gas filed a summary of the comments received as of June 5, 2023 at Attachment 2.

Question(s):

a) Please provide any updates to Attachment 2 since June 5, 2023.

Response:

a) Enbridge Gas has no updates to provide for Exhibit F, Tab 1, Schedule 1, Attachment 2. The summary of comments filed as of June 5, 2023 remains accurate.

ENBRIDGE GAS INC.

Answer to Interrogatory from
Ontario Energy Board Staff (STAFF)

INTERROGATORY

Reference:

Updated Application Exhibit F, Tab 1, Schedule 1, page 2, paragraph 6; I.STAFF.17

Preamble:

As part of the public consultation, Enbridge Gas held two virtual public information sessions:

- November 17, 2021 to December 3, 2021
- February 14, 2022 to February 28, 2022

Enbridge Gas stated that notification of these virtual information sessions were completed by newspaper publications, letters, social media and radio.

Question(s):

a) Has Enbridge Gas conducted any additional public consultation since updating its application? Please describe.

b) Please update Exhibit I.STAFF.17 for any additional public consultation Enbridge Gas has undertaken since updating its application.[2]

Response:

a) No, Enbridge Gas has not conducted additional public consultation since filing its amended application dated June 16, 2023.

b) There are no updates related to the interrogatory response at Exhibit I.STAFF.17.

[2] OEB staff notes that I.Staff.17 is not on the list of planned interrogatory response updates in Enbridge Gas's August 25, 2023 letter.

ENBRIDGE GAS INC.

Answer to Interrogatory from
Ontario Energy Board Staff (STAFF)

INTERROGATORY

Reference:

Updated Application, Exhibit G, Tab 1, Schedule 1, page 1, paragraph 4
Exhibit I.STAFF.20

Preamble:

Enbridge Gas stated that the proposed pipelines require approximately 42.0 hectares (104 acres) of permanent easement and approximately 71.6 hectares (177 acres) of temporary easement for the Project.

In response to Staff-20 (a), Enbridge Gas stated that the total required permanent easement for the Panhandle Loop is 40.62 hectares (100.35 acres) and the total required temporary easement for the Panhandle Loop is 62.03 hectares (153.26 acres).

Question(s):

a) Please explain why Enbridge Gas requires an increase in permanent and temporary land rights since updating its application given that the scope of the Panhandle Loop has not changed since the update to the application.

b) Please describe any additional changes to the land rights required for the Project since updating the application other than the land rights associated with the Leamington Interconnect that are no longer required.

c) Please provide the status of land rights for the proposed tie-in station at Richardson Road.

Response:

a) Enbridge Gas confirms that the scope of the Panhandle Loop has not changed. However, since filing the initial application in June 2022, Enbridge Gas engaged affected landowners in discussions regarding the Project route. As an outcome of those discussions and the feedback received, Enbridge Gas adjusted the easement and temporary workspaces required for the Project.

b) Enbridge Gas is currently negotiating a surface lease[1] for a potential above-ground valve site that would serve as a temporary tie-in to the existing NPS 20 pipeline.

c) Land rights have not been granted to Enbridge Gas for the land parcel subject to the proposed station adjacent to Richardson Side Road. Enbridge Gas continues to work with the landowner to secure the land rights for the proposed tie-in station

[1] A lease to cover Enbridge Gas's intended occupation of an area of land with aboveground, securely fenced apparatus for the purposes of connecting the proposed Project to the existing NPS pipeline.

ENBRIDGE GAS INC.

Answer to Interrogatory from
Ontario Energy Board Staff (STAFF)

INTERROGATORY

Reference:

Updated Application, Exhibit H, Tab 1, Schedule 1, pages 2, 4, paragraphs 6-7, 15; Attachment 6: Indigenous Consultation Report: Summary Table, June 4, 2023; Attachment 7, Indigenous Consultation Log, June 4, 2023

Preamble:

On June 6, 2023 Enbridge Gas provided an updated description of the Project reflecting changes made to the Project scope and on June 10, 2023 an updated Indigenous Consultation Report (ICR) to the Ministry of Energy.

Enbridge Gas also filed an updated summary of its Indigenous consultation activities for the Project up to June 4, 2023.

Question(s):

a) Has the Ministry of Energy indicated any changes with respect to Enbridge Gas's duty to consult for the Project following its review of the updated Project description? Please confirm that Enbridge Gas is still required to consult all of the Indigenous communities listed in the Ministry of Energy's August 6, 2021 delegation letter provided at Attachment 2.

b) Please update the Indigenous Consultation Report: Summary Table, dated June 4, 2023.

c) Please update the Log of Indigenous Consultation dated June 4, 2023.

d) Please summarize any new issues and/or concerns raised from Indigenous communities. Please outline Enbridge Gas's plans, actions and commitments to continue to engage and, as appropriate:

i. address any concerns
ii. resolve any outstanding issues or otherwise provide accommodation
iii. offer capacity funding

e) Please provide an update on the status and anticipated timeline of receiving the Ministry of Energy's letter of opinion for the Project.

Response:

a) The Ministry of Energy did not indicate any changes with respect to Enbridge Gas's duty to consult for the Project following its review of the updated Project description. Enbridge Gas is still required to consult all of the Indigenous communities listed in the Ministry of Energy's August 6, 2021 delegation letter.

b) Please see Exhibit I.STAFF.31 Attachment 1.

c) Please see Exhibit I.STAFF.31 Attachment 2.

d) As of September 13, 2023, Enbridge Gas has not been made aware of any new issues and/or concerns raised from Indigenous communities. Enbridge Gas has offered capacity funding and will continue to engage with the Indigenous Nations potentially affected by the Project.

e) On September 12, 2023, the Ministry of Energy advised Enbridge Gas that:

> "ENERGY continues its sufficiency assessment and is monitoring relevant materials submitted to the OEB. Since there is an Indigenous intervenor, our Letter of Opinion will likely be submitted close to the end of record when Enbridge submits its written reply submission (November 29, 2023)."

INDIGENOUS CONSULTATION REPORT: SUMMARY TABLE

As of September 12, 2023

Aamjiwnaang First Nation (AFN)		
Was project information provided to the community?	☒ Yes ☐ No	Enbridge Gas has provided AFN with the following information: • a detailed description of the nature and initial scope of the Project. This included a list of other provincial or federal approvals that may be required for the Project to proceed; • Maps of the Project location and any other affected area(s) • Slides for the two Virtual Open Houses • Description and map advising of a change in scope of the Project. • Environmental Report, providing information about the potential effects of the Project on the Environment. • Generic Sediment Control Plans • Natural Heritage Background Review and Field Investigations Technical Memorandum • Description and map advising of a change in scope of the Project and information on the Project being in abeyance with the OEB. Enbridge Gas requested community feedback, including any suggestions or proposals on mitigating, avoiding or accommodating any potential impacts the Project may have on Aboriginal or treaty rights. Capacity funding has been offered to support activities such as timely technical reviews of documents and participation in field work associated with the proposed Project, and to engage in meaningful consultation.

Was the community responsive/did you have direct contact with the community?	☒ Yes ☐ No	Enbridge Gas and an AFN representative have exchanged emails regarding the Project. Enbridge Gas and AFN representatives have met on multiple occasions to further discuss the Project.
Did the community members or representatives have any questions or concerns?	☒ Yes ☐ No	Enbridge Gas received comments from AFN regarding the Environmental Report. AFN's comments addressed matters such as cumulative effects, environmental monitoring and contingency plans, and mitigation measures. Enbridge Gas provided responses to AFN for review and met with AFN on October 31, 2022 to discuss to those responses. These comments and Enbridge Gas' responses can be found in Exhibit H, Tab 1, Schedule 1, Attachment 7, line-item attachment 1.26.
Does the community have any outstanding concerns?	☐ Yes ☒ No	To date, AFN has not identified any outstanding concerns related to the Project. Enbridge Gas will continue to engage with the community in relation to the Project.
Caldwell First Nation (CFN)		
Was project information provided to the community?	☒ Yes ☐ No	Enbridge Gas has provided CFN with the following information: • a detailed description of the nature and initial scope of the Project. This included a list of other provincial or federal approvals that may be required for the Project to proceed; • Maps of the Project location and any other affected area(s) • Slides for the two Virtual Open Houses • Description and map advising of a change in scope of the Project. • Environmental Report, providing information about the potential effects of the Project on the Environment.

		• Description and map advising of a change in scope of the Project and information on the Project being in abeyance with the OEB. • Stage 1-2 Archaeology Asseessment report Enbridge Gas requested community feedback, including any suggestions or proposals on mitigating, avoiding or accommodating any potential impacts the Project may have on Aboriginal or treaty rights. Capacity funding has been offered to support activities such as timely technical reviews of documents and participation in field work associated with the proposed Project, and to engage in meaningful consultation.
Was the community responsive/did you have direct contact with the community?	☒ Yes ☐ No	Enbridge Gas and CFN representatives have exchanged multiple emails about the Project. The parties are attempting to schedule a meeting to further discuss the Project and next steps.
Did the community members or representatives have any questions or concerns?	☒ Yes ☐ No	Initially, CFN representatives requested information regarding the Enbridge Gas contractor, the timing of the Environmental Report and the stage one archaeology work. The Enbridge Gas representative provided the requested information regarding timing of these reports and the Enbridge Gas contractor. CFN has expressed the need to have a community meeting to discuss the Project and Enbridge Gas agreed to participate in the meeting. CFN, as a member of Three Fires Group, was an intervenor in the original filing of this Project application and had many questions to which Enbridge Gas responded on the proceeding record.
Does the community have any outstanding concerns?	☐ Yes ☒ No	To date, CFN has identified the need to have a community meeting to discuss the Project. Enbridge Gas has attempted to schedule the meeting and will continue to engage with the community in relation to the Project.

Chippewas of Kettle and Stony Point First Nation ("CKSPFN")		
Was project information provided to the community?	☒ Yes ☐ No	Enbridge Gas has provided CKSPFN with the following information: • a detailed description of the nature and initial scope of the Project. This included a list of other provincial or federal approvals that may be required for the Project to proceed; • Maps of the Project location and any other affected area(s) • Slides for the two Virtual Open Houses • Description and map advising of a change in scope of the Project. • Environmental Report, providing information about the potential effects of the Project on the Environment. • Generic Sediment Control Plans • Natural Heritage Background Review and Field Investigations Technical Memorandum • Description and map advising of a change in scope of the Project and information on the Project being in abeyance with the OEB. • Stage 1-2 Archaeology Asseessment report Enbridge Gas requested community feedback, including any suggestions or proposals on mitigating, avoiding or accommodating any potential impacts the Project may have on Aboriginal or treaty rights. Capacity funding has been offered to support activities such as timely technical reviews of documents and participation in field work associated with the proposed Projects, and to engage in meaningful consultation.
Was the community responsive/did you have direct	☒ Yes ☐ No	Enbridge Gas and CKSPFN representatives have exchanged emails and had a telephone call regarding the Project. In addition, meetings were held on multiple occassions during which the Project was discussed.

contact with the community?		
Did the community members or representatives have any questions or concerns?	☒ Yes ☐ No	CKSPFN representatives have discussed the following with Enbridge Gas representatives in the course of engagement on the Project: availability of and funding for monitors on Enbridge Gas projects; supply chain management participation; and the scope, schedule, and cost of the Project. Enbridge Gas received comments from CKSPFN regarding the Environmental Report. CKSPFN's comments addressed matters such as fugitive emissions, cumulative effects and mitigation measures. Enbridge Gas provided responses to CKSPFN for review. These comments and Enbridge Gas' responses can be found in Exhibit H, Tab 1, Schedule 1, Attachment 7, line-item attachment 3.42. CKSPFN, as a member of Three Fires Group, was an intervenor in the original filing of this Project application and had many questions to which Enbridge Gas responded on the proceeding record.
Does the community have any outstanding concerns?	☐ Yes ☒ No	To date, CKSPFN has not identified any outstanding concerns regarding the Project. Enbridge Gas will continue to engage with the community in relation to the Project.
Chippewas of the Thames First Nation ("COTTFN")		
Was project information provided to the community?	☒ Yes ☐ No	Enbridge Gas has provided COTTFN with the following information: • a detailed description of the nature and initial scope of the Project. This included a list of other provincial or federal approvals that may be required for the Project to proceed; • Maps of the Project location and any other affected area(s) • Slides for the two Virtual Open Houses • Description and map advising of a change in scope of the Project. • Environmental Report, providing information about the potential effects of the Project on the Environment. • Description and map advising of a change in scope of the Project and information on the Project being in abeyance with the OEB.

		Enbridge Gas requested community feedback, including any suggestions or proposals on mitigating, avoiding or accommodating any potential impacts the Project may have on Aboriginal or treaty rights. Capacity funding has been offered to support activities such as timely technical reviews of documents and participation in field work associated with the proposed Projects, and to engage in meaningful consultation.
Was the community responsive/did you have direct contact with the community?	☒ Yes ☐ No	Enbridge Gas and COTTFN representatives exchanged emails regarding the Project and met multiple times to further discuss the Project. A meeting was held on November 16, 2022 to provide information to the Community.
Did the community members or representatives have any questions or concerns?	☒ Yes ☐ No	COTTFN representatives requested additional maps and information regarding capacity funding. Enbridge Gas received comments from COTTFN regarding the Environmental Report. COTTFN's comments addressed matters such as fugitive emissions and climate change, water crossing methods and mitigation measures. Enbridge Gas provided COTTFN with responses to the COTTFN's comments. . These comments and Enbridge Gas' responses can be found in Exhibit H, Tab 1, Schedule 1, Attachment 7, line-item attachment 4.29.
Does the community have any outstanding concerns?	☐ Yes ☒ No	To date, COTTFN has not identified any outstanding concerns regarding the Project. Enbridge Gas will continue to engage with the community in relation to the Project.
Oneida Nation of the Thames ("Oneida Nation")		
Was project information provided to the community?	☒ Yes ☐ No	Enbridge Gas has provided Oneida Nation with the following information: • a detailed description of the nature and initial scope of the Project. This included a list of other provincial or federal approvals that may be required for the Project to proceed;

		• Maps of the Project location and any other affected area(s) • Slides for the two Virtual Open Houses • Description and map advising of a change in scope of the Project. • Environmental Report, providing information about the potential effects of the Project on the Environment. • Description and map advising of a change in scope of the Project and information on the Project being in abeyance with the OEB. Enbridge Gas requested community feedback, including any suggestions or proposals on mitigating, avoiding or accommodating any potential impacts the Project may have on Aboriginal or treaty rights. Capacity funding has been offered to support activities such as timely technical reviews of documents and participation in field work associated with the proposed Projects, and to engage in meaningful consultation.
Was the community responsive/did you have direct contact with the community?	☒ Yes ☐ No	Enbridge Gas and Oneida Nation representatives have exchanged emails regarding the Project and met on multiple occassions to discuss the Project.
Did the community members or representatives have any questions or concerns?	☒ Yes ☐ No	Oneida Nation and Enbridge Gas representatives have discussed the process for adding Oneida Nation businesses or affiliated businesses to Enbridge Gas' database. Oneida Nation has not raised any other questions or concerns regarding the Project.
Does the community have any outstanding concerns?	☐ Yes ☒ No	To date, the Oneida Nation has not identified any outstanding concerns regarding the Project. Enbridge Gas will continue to engage with the community in relation to the Project.
Walpole Island First Nation ("WIFN")		

Was project information provided to the community?	☒ Yes ☐ No	Enbridge Gas has provided WIFN with the following information: • a detailed description of the nature and initial scope of the Project. This included a list of other provincial or federal approvals that may be required for the Project to proceed; • Maps of the Project location and any other affected area(s) • Slides for the two Virtual Open Houses • Description and map advising of a change in scope of the Project. • Environmental Report, providing information about the potential effects of the Project on the Environment. • Generic Sediment Control Plans • Natural Heritage Background Review and Field Investigations Technical Memorandum • Description and map advising of a change in scope of the Project and information on the Project being in abeyance with the OEB. Enbridge Gas requested community feedback, including any suggestions or proposals on mitigating, avoiding or accommodating any potential impacts the Project may have on Aboriginal or treaty rights. Capacity funding has been offered to support activities such as timely technical reviews of documents, participation in field work associated with the proposed Projects, and to engage in meaningful consultation.
Was the community responsive/did you have direct contact with the community?	☒ Yes ☐ No	Enbridge Gas and WIFN representatives have exchanged emails regarding the Project and met on multiple occassions to discuss the Project.
Did the community members or representatives have any	☒ Yes ☐ No	Enbridge Gas received comments from WIFN regarding the Environmental Report. WIFN's comments addressed matters such as cumulative effects, aquatic ecology impacts and mitigation measures. Enbridge Gas provided WIFN with responses to the WIFN's comments. These comments and Enbridge Gas' responses can be found in Exhibit H, Tab 1, Schedule 1, Attachment 7, line-item attachment 6.22.

questions or concerns?		
Does the community have any outstanding concerns?	☐ Yes ☒ No	To date, WIFN has not identified any outstanding concerns related to the Project. Enbridge Gas will continue to engage with the community.
Eelūnaapèewii Lahkèewiit ("Delaware Nation")		
Was project information provided to the community?	☒ Yes ☐ No	Enbridge Gas has provided Delaware Nation with the following information: • a detailed description of the nature and initial scope of the Project. This included a list of other provincial or federal approvals that may be required for the Project to proceed; • Maps of the Project location and any other affected area(s) • Slides for the two Virtual Open Houses • Description and map advising of a change in scope of the Project. • Environmental Report, providing information about the potential effects of the Project on the Environment. • Description and map advising of a change in scope of the Project and information on the Project being in abeyance with the OEB. Enbridge Gas requested community feedback, including any suggestions or proposals on mitigating, avoiding or accommodating any potential impacts the Project may have on Aboriginal or treaty rights. Capacity funding has been offered to support activities such as timely technical reviews of documents and participation in field work associated with the proposed Projects, and to engage in meaningful consultation.
Was the community responsive/did you have direct contact with the community?	☒ Yes ☐ No	Enbridge Gas and Delaware Nation had a telephone conversation about the Project. The Delaware Nation representative advised they would provide the information to Chief and Council and if there were further questions, they would reach out.
Did the community members or representatives have any	☐ Yes ☒ No	To date, Delaware Nation has not raised any questions or concerns regarding the Project.

questions or concerns?		
Does the community have any outstanding concerns?	☐ Yes ☒ No	To date, Delaware Nation has not identified any outstanding concerns related to the Project. Enbridge Gas will continue to engage with the community.

Enbridge Gas Inc. Indigenous Consultation Log

Log for the period of June 4, 2023 to September 13, 2023

Aamjiwnaang First Nation (AFN)					
Line Item	**Date**	**Method**	**Summary of Enbridge Gas Inc. ("Enbridge Gas") Communication Activity**	**Summary of Community's Communication Activity**	**Issues or Concerns Raised and Enbridge Gas Responses**
No update					
Caldwell First Nation (CFN)					
Line Item	**Date**	**Method**	**Summary of Enbridge Gas Inc. ("Enbridge Gas") Communication Activity**	**Summary of Community's Communication Activity**	**Issues or Concerns Raised and Enbridge Gas Responses**
2.53	August 30, 2023	Email	An Aecom representative, acting on behalf of Enbridge Gas, sent an email to the CFN representatives to provide the Stage 1 -2 Archaeological Assessment (AA) report for download.		Stage 1-2 AA report was provided to TFG as per request during OEB proceedings (JT1.11 4a).
2.54	September 12, 2023	Email	An Enbridge Gas representative emailed the CFN to follow up on the Stage 1-2 AA report as it had not been downloaded yet. The Enbridge Gas representative advised the CFN representative to advise if they had any difficulties downloading the report.		
Chippewas of Kettle and Stony Point First Nation (CKSPFN)					
Line Item	**Date**	**Method**	**Summary of Enbridge Gas Inc. ("Enbridge Gas") Communication Activity**	**Summary of Community's Communication Activity**	**Issues or Concerns Raised and Enbridge Gas Responses**
3.47	August 8, 2023	Phone	An Enbridge Gas representative had a discussion with a CKSPFN representative. The CKSPFN representative advised that the CKSPFN Chief and administration were examining the CKSPFN protocol for engaging proponents, and aligning work plans and scheduling with their consultants at Three Fires Group (TFG). During the call the CKSPFN representative requested that the Enbridge Gas representative provide CKSPFN with information on		CKSPFN requested information on previous Project engagement with TFG.

			previous project engagement with TFG.		
3.48	August 14, 2023	Email	An Enbridge Gas representative emailed a CKSPFN representative requesting a meeting to discuss Enbridge Gas Project consultation, past involvement with TFG and First Nations consultation in the region. The Enbridge Gas representative provided some dates for in person meetings.		
3.49	August 16	Email		A CKSPFN representative emailed the Enbridge Gas representative to confirm a date for the meeting.	
3.50	August 16, 2023	Email	An Enbridge Gas representative emailed the CKSPFN representative to provide information on previous Project engagement with TFG. The Enbridge Gas representative provided links to the OEB regulatory proceedings.		Enbridge Gas provided CKSPFN with links to the OEB Panhandle proceedings and key references regarding Indigenous consultation that may be of interest.
3.51	August 30, 2023	Email	An Aecom representative, acting on behalf of Enbridge Gas, sent an email to the CKSPFN representatives to provide the Stage 1 and 2 AA report for the community to download.		Stage 1-2 AA report was provided to TFG as per request during OEB proceedings (JT1.11 4a).
3.52	September 13, 2023	Email	An Enbridge Gas representative sent an email to the CKSPFN representative to follow up on the Stage 1-2 AA report as it had not been downloaded yet. The Enbridge Gas representative advised the CKSPFN representative to advise if they had any difficulties downloading the report.		
Chippewas of the Thames First Nation (COTTFN)					
Line Item	**Date**	**Method**	**Summary of Enbridge Gas Inc. ("Enbridge Gas") Communication Activity**	**Summary of Community's Communication Activity**	**Issues or Concerns Raised and Enbridge Gas Responses**
No update					
Oneida Nation of the Thames (Oneida Nation)					

Line Item	Date	Method	Summary of Enbridge Gas Inc. ("Enbridge Gas") Communication Activity	Summary of Community's Communication Activity	Issues or Concerns Raised and Enbridge Gas Responses
No update					
Walpole Island First Nation					
Line Item	**Date**	**Method**	**Summary of Enbridge Gas Inc. ("Enbridge Gas") Communication Activity**	**Summary of Community's Communication Activity**	**Issues or Concerns Raised and Enbridge Gas Responses**
No update					
Eelūnaapèewii Lahkèewiit ("Delaware Nation")					
Line Item	**Date**	**Method**	**Summary of Enbridge Gas Inc. ("Enbridge Gas") Communication Activity**	**Summary of Community's Communication Activity**	**Issues or Concerns Raised and Enbridge Gas Responses**
No update					

Line-item attachment 2.53

From: WeTransfer
To: Hartwig, Emily
Subject: Panhandle Project: Stage 1-2 AA sent successfully to ecd.manager@caldwellfirstnation.ca
Date: Wednesday, August 30, 2023 3:56:24 PM

Panhandle Project: Stage 1-2 AA sent to ecd.manager@caldwellfirstnation.ca

2 items, 69.8 MB in total • Expires on 6 September, 2023

Thanks for using WeTransfer. We'll email you a confirmation as soon as your files have been downloaded.

Recipients

ecd.manager@caldwellfirstnation.ca

Download link

https://we.tl/t-fo5VSy2NmP

Line-item attachment 2.54

From: Lauren Whitwham
To: Zack Hamm
Cc: Chasity Dodge
Subject: Panhandle: Stage 1-2 AA
Date: Tuesday, September 12, 2023 4:07:01 PM
Attachments: image001.emz
image002.png

Hi Zack,

Just wanted to follow up on an email that was sent to you at the end of August. Aecom sent the Stage 1-2 AA report for the Panhandle Regional Expansion report over for your review.

I don't believe that you have downloaded the report yet so I just wanted to follow up to call it to your attention.

Let me or Emily Hartwig from Aecom know if you have any troubles.

Thanks,
Lauren

Line-item attachment 3.48

From: Lauren Whitwham <Lauren.Whitwham@enbridge.com>
Sent: Monday, August 14, 2023 12:22 PM
To: Jordan George <Jordan.George@kettlepoint.org>; Verna George <Verna.George@kettlepoint.org>; Kimberly Bressette <Kimberly.Bressette@kettlepoint.org>
Cc: Chasity Dodge <chasity.dodge@enbridge.com>
Subject: Enbridge Gas: Project Consultation meeting

Good afternoon,

Hope you have been enjoying your summer. Can't believe that September is fast approaching.

We were hoping to set up a meeting with Kettle and Stony Point First Nation in September to discuss Enbridge Gas Project consultation, past involvement with TFG and First Nations consultation in the region. We can also provide information on the current Enbridge Gas projects including Watford RNG, Boblo Island and Panhandle Regional Expansion Project.

We would be happy to come to you and meet at the band office in September. Right now, September 13, 14 and 19 look good for us. Alternatively, we could have a virtual meeting if you'd like to meet sooner than mid-September.

Thanks and looking forward to hearing from you,

Lauren

Line-item attachment 3.49

From: Kimberly Bressette <Kimberly.Bressette@kettlepoint.org>
Sent: Wednesday, August 16, 2023 11:24 AM
To: Lauren Whitwham <Lauren.Whitwham@enbridge.com>
Cc: Chasity Dodge <chasity.dodge@enbridge.com>; Jordan George <Jordan.George@kettlepoint.org>; Verna George <Verna.George@kettlepoint.org>
Subject: [External] RE: Enbridge Gas: Project Consultation meeting

Good Morning Lauren,

We are available on September 19th to meet and we look forward to the update on the projects.

I am available until 3:30 that day.
Preferably 9:30 or 1:30 would be ideal.

Look forward to hearing from you.

Miigwetch!

Kimberly Bressette
CHIEF
Chippewas of Kettle and Stony Point First Nation

Line-item attachment 3.50

From: Lauren Whitwham
To: Jordan George
Subject: Consultation with TFG on behalf of CKSPFN
Date: Wednesday, August 16, 2023 3:21:50 PM
Attachments: Capacity Funding Boblo Island CKSPFN SIGNED.pdf
2023-07-28 - CKSPFN_RidgeRNG_Comments_FINAL.pdf
2023-07-28 - CKSPFN_WatfordRNG_Comments_FINAL.pdf
TFG CKSPFN Lifecycle Engagement Program July final.pdf

Hi Jordan,

Thanks for the call last week regarding CKSPFN and proponent consultation. We look forward to meeting with you, Chief and Verna on September 19 to discuss Enbridge's project consultation.

You had mentioned seeking information on the engagement TFG has been doing with Enbridge. I've included the most recent comments to our Watford Pipeline Project environmental review and some of the links to the regulatory proceedings that TFG has participated in on behalf of CKSPFN and Caldwell First Nation.

The Dawn Corunna Project was approved by the OEB. Information can be found here: https://www.rds.oeb.ca/CMWebDrawer/Record?q=CaseNumber%3DEB-2022-0086&sortBy=recRegisteredOn-&pageSize=400 and this includes the TFG submissions and transcript from their questioning.
https://www.rds.oeb.ca/CMWebDrawer/Record/750259/File/document – CKSPFN Interrogatory questions and Enbridge Gas responses pg 140-171
https://www.rds.oeb.ca/CMWebDrawer/Record/752111/File/document – Day 1 transcript – end of Day 1 TFG
https://www.rds.oeb.ca/CMWebDrawer/Record/752454/File/document – Day 2 transcript – beginning of Day 2 TFG

The Panhandle Regional Expansion Project is with the OEB for the regulatory process now. Information can be found here: https://www.oeb.ca/applications/applications-oeb/current-major-applications/eb-2022-0157
https://www.rds.oeb.ca/CMWebDrawer/Record/756695/File/document TFG interrogatory questions and Enbridge Gas responses from pg 470-646
https://www.rds.oeb.ca/CMWebDrawer/Record/757857/File/document - Day 1 transcript pg 94

Enbridge is currently engaging on the Watford Pipeline Project and the Boblo Island Community Expansion Project for which TFG has signed capacity funding agreements for their engagement with Enbridge Gas. Capacity Funding is to ensure that Indigenous Nations have funding to engage with Enbridge to review projects and meet. Enbridge just finished a two year capacity funding agreement with TFG for engagement on Projects within the Treaty area. We also have a Lifecycle Engagement Program agreement signed with TFG on behalf of CKSPFN. The Lifecycle agreement is attached. This agreement spells out how Enbridge will engage with TFG/CKSPFN.

I'm happy to provide any further information that you might be interesting in reviewing.

Thanks again and looking forward to meeting on September 19.

Lauren

Line-item attachment 3.51

From: WeTransfer
To: Hartwig, Emily
Subject: Panhandle Project: Stage 1-2 AA sent successfully to consultation@kettlepoint.org and 2 others
Date: Wednesday, August 30, 2023 3:52:32 PM

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Report Suspicious

Panhandle Project: Stage 1-2 AA
sent to
consultation@kettlepoint.org
and 2 others

2 items, 69.8 MB in total • Expires on 6 September, 2023

Thanks for using WeTransfer. We'll email you a confirmation as soon as your files have been downloaded.

Recipients

consultation@kettlepoint.org verna.george@kettlepoint.org
jordan.george@kettlepoint.org

Line-item attachment 3.53

From: Lauren Whitwham
To: Consultation
Cc: Jordan George; verna.george@kettlepoint.org; Chasity Dodge
Subject: Enbridge Gas Panhandle: Stage 1-2 AA report
Date: Wednesday, September 13, 2023 12:44:31 PM

Good afternoon,

Just wanted to touch base regarding the Stage 1-2 AA report for the Panhandle Regional Expansion Project.

As part of the OEB proceeding we advised TFG that we would share the Stage 1-2 archaeology report when it was complete. We currently have three parcels of properties that still need to be completed however, this is the most recent document.

On August 30, 2023, Emily Hartwig from Aecom sent consultation@kettlepoint.org an email with the link for download. It does not seem that consultation@kettlepoint.org has downloaded the document.

Please advise if you have any difficulties with accessing the document.

Thanks,
Lauren